

Academic Catalog

2023-2024 Academic Year

Effective September 1, 2023

Notices

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Non-discrimination Policy

The American University of Iraq, Sulaimani accepts students based on the record of their past performance and potential for success at AUIS regardless of affiliation or origin.

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Table of Content

Contents

THE UNIVERSITY	5
ACADEMIC PREPARATORY PROGRAM	8
UNDERGRADUATE PROGRAM	10
Declaring a Major	12
Course Cross-Listing Policy.....	13
Add/Drop Courses.....	13
Course Withdrawal Policy.....	14
Independent Studies.....	14
Directed Study.....	15
Study Abroad Policy	16
AUIS Attendance Policy - Academic Year 2022-2023	18
Grading System.....	22
Incomplete Grades.....	22
Grade Appeals.....	23
Grade Replacements	24
Academic Probation.....	24
Academic Dismissal	25
Undergraduate Readmissions Policy	26
Leave of Absence from the University (LOA)	27
Graduation and Commencement Policy.....	28
MBA Graduation	29
INTERNATIONAL STUDENTS	30
INVOICE AND PAYMENT	33
INTEGRITY, BEHAVIOR AND DISCIPLINE.....	35
UNDERGRADUATE DEPARTMENTSAND CURRICULUM	43
The AUIS Core Program	43
The Core Program Mission	44
The Core Program Goals	44
The Core Program, General Education, And Course Eligibility	44
Core Program Curriculum	45
The Department of Business Administration	47
Concentration in Business Management.....	49
Concentration in Accounting.....	49
Concentration in Marketing	50
Concentration in Economics.....	50
Minor in Business Administration	51
Minor in Economics.....	51

Minor in Business Management.....	52
The Department of Engineering.....	56
The Department of English and Translation	62
Bachelor of Arts in English Journalism	63
Bachelor of Arts in Translation	64
Bachelor of Arts in English.....	66
Minor in English Journalism.....	67
Minor in English Literature	68
Minor in Translation.....	69
Minor in Gender Studies	69
The Department of Information Technology.....	71
Bachelor of Science in Information Technology	71
Minor in Information Technology	72
Bachelor of Science in Software Engineering	73
Bachelor of Science in Cybersecurity.....	76
The Department of Mathematics and Natural Sciences.....	78
The Department of Medical and Health Sciences (MHS).....	81
Minor in Public Health:.....	84
The Department of Social Sciences and Law	86
Bachelor of Arts in International Relations.....	86
Bachelor of Arts in International Studies.....	86
The Bachelor of Laws.....	95
College of Dentistry.....	99
College of Pharmacy	103
Undergraduate Course Descriptions.....	109
The Department of Business Administration.....	109
The Department of Engineering.....	118
The Department of English	133
The Department of Information Technology	149
The Department of Mathematics and Natural Sciences	159
The Department of Social Sciences	169
Law Major	183
The Department of Medical & Health Sciences (MHS).....	193
Pharmacy Program Course Descriptions	215
Graduate Departments and Programs	229
Master of Business Administration	229
MBA Concentration Courses / Electives	232

THE UNIVERSITY

Vision

The American University of Iraq, Sulaimani (AUIS) is a model for excellent, relevant and innovative higher education in the Middle East. It equips students for leadership roles, connects communities around the world, and provides visionary and strategic educational direction for the region.

Mission Statement

The University strives to educate men and women with the necessary knowledge and skills to serve as professional and national leaders and valued members of their communities. Rooted in the American liberal arts tradition, the University's academic and co-curricular programs prepare students for successful careers in a modern, pluralistic society and a global environment by developing strength in critical thinking, the ability to communicate well, a strong work ethic, good citizenship and personal integrity. This broad-based education, designed to develop mind, body and character, is achieved at AUIS through excellence in teaching, scholarship, and student services.

Core Values

The core values of the University are respect for the truth, freedom of academic inquiry and expression, tolerance of conflicting beliefs, fairness and impartiality, and honorable personal and professional behavior. These values apply equally to all members of the University community, including students, faculty, staff, administrators, visitors, and members of the Board of Trustees and advisory bodies. The University is, by design, an institution that is non-governmental, non-partisan, nonsectarian, independent, not-for-profit, and guided by the highest ethical standards. It is committed to personal and academic integrity and the rule of law in all of its dealings with public officials and private interests. In administering its policies, the University does not discriminate on the basis of gender, age, race, ethnicity, religion, occupation, politics, or social or economic standing.

Teaching Philosophy

At AUIS, our teaching philosophy is firmly rooted in the American liberal arts tradition. This means that, while the faculty is charged with facilitating the learning process by encouraging inquiry and providing guidance, it is ultimately the individual student who is responsible for the direction and scope of his or her education and intellectual development.

Here students should be willing and able to go far beyond merely absorbing, memorizing, and reciting facts and information received passively from their professors, which has often been the case at other universities in Iraq and the region. We believe they should participate actively and meaningfully in the classroom. They are expected to be fully engaged, to ask questions in class, and to confer with their professors outside of class. Moreover, they should be ready to respectfully challenge the opinions of others and have their own views challenged in turn.

At AUIS you will find classes in which students work through problems together, discuss and debate with each other, and learn from one another. Here it is not unusual to walk into a classroom and see students sitting with their professor, talking about an issue, and picking it apart, with everyone—students and professor alike—contributing to a dynamic and lively exchange of thoughts and ideas. Some classes have fewer than fifteen students, while other classes demonstrate modern technologies and learning techniques. For students committed to their academic work, directed study courses provide a privileged one-on-one learning experience with teachers for students committed to their academic work.

Members of the AUIS faculty bring to the classroom not only their experience and expertise, but also an approach to education that aims to help each student to become the master of his or her own learning. This approach, taken together with our comprehensive core curriculum and modern teaching and learning techniques, is intended to equip all AUIS students with the skills, insights, and confidence to make a positive contribution to their communities.

This is why at AUIS we seek thoughtful and inquisitive students who understand and appreciate that a true education is a lifelong endeavor. We do not hesitate to welcome the most intelligent and promising students.

Ours is a teaching philosophy that emphasizes the necessity of free inquiry and debate, as well as the development of superior English communication skills, and a sense of civic and global awareness. We want our students to become leaders in their fields, as well as in their communities. Beyond this, we hope most of all to produce the next generation of leaders for a free and prosperous society.

History

In 2007, the American University of Iraq, Sulaimani was established to offer a truly comprehensive American-style education in Iraq, where talented students in Iraq and the region would come to learn, regardless of origin or affiliation. This new university was determined to provide an alternative to the “lecture-memorize-repeat” model of education so prevalent elsewhere in Iraq and the Middle East. Forty-five students from across Iraq were admitted to the first undergraduate class, and the University simultaneously launched an MBA program for students planning to study business and leadership at the graduate level.

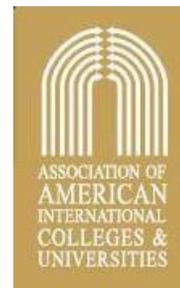
Today the University’s 1,300 students come from each of Iraq’s nineteen governorates and from other countries. More than half of its distinguished faculty come from outside Iraq and the Kurdistan Region. The University operates for the public benefit, without owners or stockholders, allowing it to provide financial assistance in the form of discounted tuition rates to more than 80% of its students. An independent Board of Trustees provides strong governance and facilitates adoption of best international academic practices. To educate the leaders of tomorrow, the University seeks to demonstrate a leadership role in regional higher education.

Accreditation and Recognition

AUIS is the first private university to be recognized by the Republic of Iraq's Ministry of Higher Education and Scientific Research and also recognized and registered by Kurdistan Regional Government's Ministry of Higher Education and Scientific Research. The University's academic programs, taught in the English language by international faculty members, are designed to meet or exceed standards set by institutional accreditation organizations in the United States.

The University's Academic Preparatory Program is the only English language program in Iraq to be accredited by the U.S. Commission on English Language Program Accreditation (CEA), recognized by the U.S. Secretary of Education as a national accrediting agency for English language programs and institutions in the U.S.

AUIS is the first university in Iraq and the Kurdistan Region to become a certified member of the Association of American International Colleges and Universities ("AAICU"). Other AAICU members include the American University in Cairo, the American University of Beirut, and the American University of Sharjah.



Learning Progression at the University

Before joining the undergraduate program, most students improve their English language and critical thinking skills by studying for one or more eleven-week terms in the University's Academic Preparatory Program (APP). Many students find the rapid pace of learning in this introductory program to be deeply rewarding, and excellent preparation for undergraduate study in the English language.

The undergraduate program is taught each year in two semesters, during the fall and spring, with optional study available during a one-month winter term in January and a summer term that begins after Commencement. The program awards Bachelor of Arts or Bachelor of Science degrees to students in their major field of study. By taking certain electives, students with an interest in more than one field may earn a "minor" in a second subject.

For postgraduate students, AUIS offers a master's degree in business. This is an executive degree granting program. The University's Professional Development Institute (PDI) supports adult students, organizations and professional groups with courses and programs covering a wide range of subjects, including English language studies and management and business training.

Programs covering a wide range of subjects, including English language studies and management and business training.

ACADEMIC PREPARATORY PROGRAM

The Academic Preparatory Program (APP) at AUIS provides English-language and math instruction for students seeking to study in the undergraduate academic program. It is the only such program in Iraq that is U.S.-accredited.

APP offers four levels of instruction in reading and writing. All instructors are native English speakers with experience in teaching second-language learners. Classes are small to allow for one-on-one work with teachers and pair and group work with other students. Instruction varies depending on the subject. APP has four terms per year, running all year to allow students to progress quickly through the program.

Grades are important to students, but grades are only a partial measure of their mastery of English. Daily class work, especially oral participation, attendance, writing exercises, as well as attendance at university sponsored lectures, workshops and extracurricular activities are all integral to the development of students' English abilities.

APP holds two graduation ceremonies each year to honor students who have successfully completed the program. Students are awarded diplomas certifying them as prepared for undergraduate study in the English language.

APP MISSION

The mission of the Academic Preparatory Program is to prepare non-native English-speaking high school graduates to enter the AUIS undergraduate program by teaching them academic English, critical thinking skills and study habits. Our goal is to insure that upon completion of the Program, students have the necessary proficiency in English reading, speaking and writing, and awareness of academic cultural norms and expectations to succeed in undergraduate studies at AUIS.

Requirements for passing APP Program

In order to pass Levels Foundations, Level 1, 2 and 3, a student must earn at least 70% in each of the two classes. Any student who does not earn this grade in each class must repeat the level. If a student fails one course, he/she must repeat only the course they have failed in order to proceed to the next level.

In order to pass Level 3, a student must earn at least 70% in each of the two English classes. Any student who does not earn this grade in all of their courses, must repeat the failed course in order to move to enroll in the undergraduate program.

Requirements for passing Concurrent

Concurrent classes (R100 and W100) are worth 3 credits each and are offered for 3 hours per week. In order to pass each class, students need to earn a passing grade (please refer to the undergraduate grading system). If a student fails one of these classes, it will affect their GPA score and their ability to take some of their core classes in the next semester.

Graduating from APP into the Undergraduate Program

APP students advance to the undergraduate program and receive the APP Graduation Certification by completing the following:

- Passing Level 3
- Passing Concurrent Enrollment program (Reading 100, Writing 100), or
- Scoring a 72 on the TOEFL iBT exam.

AUIS English Requirements:

AUIS Levels	CEF	AUIS iBT TOEFL	AUIS (ACTFL & CEFR)	APP Level advancement
Foundations	A1	0-29	Novice low- Novice mid	
APP 1	A2	30-42	Novice high, Intermediate low	Passing Foundations with 70+ grade
APP 2	B1	43-58	Intermediate Mid, Intermediate High	Or passing Level 1 with 70+ grade
APP 3	B1-B2	59-68	Intermediate high to Advanced low	Or passing Level 2 with 70+ grade
UG Concurrent Enrollment 2 ESL + 3 UG	B2+	69-71	Advanced low to Advance mid	Or passing Level3 with 70+ grade
UG 5 UG credit classes	C1	72	Advanced mid to Advanced high	

*AUIS requires all applicants to complete the AUIS English Placement Test provided at the AUIS or an equivalent test.

UNDERGRADUATE PROGRAM

The Undergraduate Academic Program

The undergraduate program at AUIS is organized into seven academic departments by subject, plus a separate unit to administer the AUIS Core Program. The departments, along with the majors and minors offered by each department, are listed below.

The Department of Business Administration

Bachelor of Science in Business Administration

Bachelor of Science in Human Resource Management

Bachelor of Science in Digital Marketing and Social Media

Concentration in Business Management Concentration in Accounting

Concentration in Finance Concentration in Marketing Concentration in Economics Minor

in Business Administration Minor in Business Management Minor in Economics

The Department of Engineering

Bachelor of Science in Artificial Intelligence and Robotics Engineering

Bachelor of Science in Civil Engineering

Bachelor of Science in Energy Engineering

Bachelor of Science in Industrial Engineering

Bachelor of Science in Mechanical Engineering

The Department of English and Translation

Bachelor of Arts in English Journalism

Bachelor of Arts in English

Bachelor of Arts in Translation

Minor in English--Journalism

Minor in English

The Department of Information Technology (IT)

Bachelor of Science in Information Technology

Bachelor of Science in Software Engineering

Minor in Information Technology

Bachelor of Science in Cybersecurity

The Department of Social Sciences and Law

Bachelor of Arts in International Studies

Bachelor of Arts in International Studies

Bachelor of Arts in Law

Minor in Political Science

Minor in International Relations

Minor in International Studies

Minor in Law

The Department of Mathematics and Natural Science

Minor in Mathematics

The Department of Medical and Health Sciences

Bachelor of Medical Laboratory Sciences

Minor in Public health

College of Dentistry

Bachelor of Surgical Dentistry

College of Pharmacy

Bachelor of Pharmacy

Majors

A student's major is his or her primary program of study, and it defines the degree earned by each student upon graduation. Each student must declare his or her major degree program by the end of the third semester of the Academic Program. Changing a major after declaration requires special justification, and students must consult with their academic adviser before applying for such a change.

Concentrations

A concentration at AUIS is a five-course program that allows students to explore a subject within their major field of study in more depth. Concentrations are optional, and only students in the major are eligible to take the accompanying concentrations (for example, concentrations in the IT program are only open to IT majors). Students may only declare one concentration, which may be declared to the Registration and Records Office at anytime before graduation from the Academic Program.

Minors

A minor at AUIS is a five-course program of study in a specific subject that supplements a student's major study. Minors are optional, and a student's minor must be in a subject which is different from his or her major. Students may declare a maximum of two minors, and they may be declared to the Registration and Records Office at any time before graduation from the Academic Program. Student can declare their minor after declaring their major.

Advisers

Upon admissions to the Academic Program, undergraduate students will be assigned faculty advisers. Each academic student should meet with her or his faculty adviser at least once per semester to discuss their academic plan and to ensure they will fulfill all necessary credits for graduation. Advisers are responsible for maintaining a schedule that allows them to be accessible to their students.

Students must meet with their adviser before they are eligible to register for courses for the following semester.

Although advisers are available for help and guidance, students must assume responsibility for the course of their educational careers. Students should become familiar with University policies, procedures, and program requirements; recognize the necessity of getting timely assistance with academic issues; and schedule meetings with their advisers in advance so that both parties have time to prepare.

It is important to note that while students have only one adviser, advisers often have many advisees, in addition to teaching, research, and committee responsibilities.

Declaring a Major

Part 1. Students who were admitted to AUIS in Fall of 2022 and afterwards:

Students admitted to AUIS in the Fall of 2022 and afterwards will have until the end of their third undergraduate semester to change/declare their final major. Students are allowed to change their major only once before the start of their fourth semester of their undergraduate studies. AUIS will review a student's final major for approval. Once the student's major has been approved, the student will not be able to change the major again.

Part 2. Students who were admitted to AUIS prior to Fall of 2022:

For students who were admitted to AUIS prior to the 2022-2023 academic year, the policy for changing their major will be as follows:

- 1) Students not yet in the fourth or later semester of undergraduate study can change/declare their final major once, prior to the beginning of their fourth semester of study and no later than Spring 2024.
- 2) Students who have already changed their major and had this change reported to the Ministry, cannot change their major again.

Current undeclared undergraduate students who do not fit within the above categories, but who have not yet changed their major, can submit a "major change petition" form to the Provost and Vice President for Academic Affairs and the Director of Registration and Records Office before the start of their fifth semester.

Forms

- Major Declaration Form (must be submitted by end of 3rd semester)
- Change of Major Petition (must be submitted after 4th term to formally change majors)

Course Overload Policy

1. Regular Course Load

AUIS Curriculum is designed for students to take a normal course load of 5 courses per term.

2. Overload

- Students in good academic standing with CGPA above 3.0 may register for one overload course (or the equivalent of three credit hours) per-semester.
 - Senior Students on their last semester (Fall or Spring) in good academic standing with CGPA 2.0 or above can apply for an overload.
- Students can only apply for overload during main semesters, which means Fall and Spring.
 - Students cannot apply for overload during Summer and Winter Semesters regardless of their GPA and Class Standing.
- Students on Probation cannot apply for more than four courses regardless of their Class Standing.

Class Standing

Class Standing	Earned Credits
Senior standing	90 credits earned and up
Junior standing	60 – 89 credits earned
Sophomore standing	30 – 59 credits earned
Freshman standing	0 – 29 credits earned

Course Cross-Listing Policy

Some courses have the potential to count for more than one curricular program (major/minor/concentration). Microeconomics, for example, may count for the business major, the international studies major, and the economics minor.

Any individual course may count toward up an unlimited number of curricular programs (e.g. a student who has passed microeconomics can have that one course count toward a business major and both an IS minor and an economics minor).

However, such overlaps can make up a maximum of two courses toward the award of any one program. Departments have control over how many overlaps they will accept for each of their programs of study: they may choose to allow fewer than two. The award of each major, minor, or concentration should always represent substantial work beyond a student's other programs. The two-course overlap maximum establishes that even the smallest certified programs the University offers—minors, at five courses— require at least half their courses (in this case, 3 of 5) to be unique to them.

Classes that fulfill a student's core (whether requirement or option) cannot be cross-counted toward any other curricular program (major, minor, certificate, or concentration). Classes offered as core options may count toward other programs where eligible, but only if a student has fulfilled their core option requirement with another class

In addition to the present language (which only sets a university-wide maximum), departments must clarify the degree of overlap allowed for each program of study on the page of the academic catalogue that establishes that program's requirements. Each program entry should list this information on its own line in the format "Maximum overlap X courses."

This policy replaces both the previous ban on overlaps, and the previous leeway for "the appropriate department chair(s) to find suitable alternatives." There is no further flexibility beyond the two-course maximum: the catalogue-stipulated maximum overlap for each course of study applies without exception, even in cases of delayed graduation.

Add/Drop Courses

Registration for all courses is open before the start of the semester, and students may add courses to their schedule during this time. Students may drop courses from their schedule during the first two weeks of the semester without incurring a notation on their transcript.

Course Withdrawal Policy

For any 13-week semester:

Weeks 1-2: Students may drop a course, for any reason, without any notation on their transcript. To drop a class during this time students must make an appointment with their adviser. This is also described in the add/drop policy.

Weeks 3-7: Students may withdraw from a course for any reason. The course will be notated on the student transcript with a grade of "W." To withdraw from a course during this time students must complete the course withdrawal form, available in the Registration and Records Office, and obtain signatures from both the course instructor and the Dean of Students.

Weeks 8-9: Students may withdraw from a course. Withdrawals during this time will be notated as "WF" (Withdraw Fail) on the transcript. If the student is doing well in the course, and the withdrawal is due to other factors outside of the student's control, the instructor may petition that the grade be notated as "W". The process for withdrawing during this time is the same as above; the student must complete the course withdrawal form and obtain the requisite signatures.

Weeks 10-13: Students may not withdraw from a course.

For any short term (winter and summer):

Students may drop a course for any reason without any notation on their transcript during the first week of the term. To drop a course during this time students must go to the Registration and Records Office.

Students may withdraw from a course with a "W" notated on their transcript by the end of the second week of the term. To withdraw from a course during this time students must go to the Registration and Records Office.

Students may withdraw from a course with a "WF" by the end of the third week of the term. If the student is doing well in the course, and the withdrawal is due to other factors outside of the student's control, the instructor may petition that the grade be notated as "W". To withdraw from a course during this time students must go to the Registration and Records Office.

Students may not withdraw after the third week of the term.

Independent Studies

Independent study allows students to study subjects of interest or curiosity that fall outside of the normal academic curriculum. This study is done under the guidance of a faculty member who has particular expertise in the area of interest, and who has agreed to help design and structure the study experience. Students may receive one course credit for successfully completing an independent study.

Independent study is available to students after they have completed their 5th semester at AUIS. They must have a GPA of 3.0 or higher, and they must have evidence of an appropriate knowledge base through earlier coursework. Furthermore, both the student and the instructor must demonstrate that they have sufficient time to complete the course at the scheduled end date. Independent studies will not be granted for subjects of established courses. The GPA requirement may be waived in special circumstances by the department chair.

The course of study is to be defined by the student and instructor in a written agreement, similar to a syllabus, which is to be completed before the beginning of class. The agreement must be approved by the instructor and the relevant department chair. The agreement must include:

- A statement of purpose, written by the student, stating why he/she is pursuing this independent study.
- A statement of the learning goals of the study.
- An outline of proposed study which indicates a course of work equivalent to that of a regular one-credit class. This should include a schedule of meeting times between the instructor and the student.
- A list of major assessments to be conducted throughout the course and their submission dates. These can be exams, papers, physical products, or other assessment projects. The course must have, at a minimum, a mid-term assessment and a final assessment.
- A list of the bibliographic references and other resources (interviews, software, etc.) which will be used as part of the study.
- A statement of consequences for the student in the case of underperformance.

Students interested in conducting an independent study should identify and approach an appropriate professor to study with. With the professor's consent, the student and professor should draft the agreement described above and submit it to their department chair for approval. Criteria for approval include:

- Accountability, both for student and professor, on the requirements and academic rigor of the proposed course.
- Consultation with the student's adviser as to how this course will affect the student's progress toward a degree.

Once approved, the student, professor, and department chair should sign the agreement, complete and attach the independent study form, make copies for each party involved, and submit the original to the Registration and Records Office to complete registration.

Directed Study

A directed study course is a substitute of a regular course that is not offered in the semester. Courses with labs and courses included in the core requirements - such as core courses, core options, and core electives - cannot be taken as Directed Study Courses. The material covered in such a course is essentially the same as that covered in the traditional course. Credit assigned for a directed study course will be set equal to the credit value of the traditional course for which it is to be substituted.

Since a directed study is a substitute for a regular class, a student enrolled in a directed study course needs to cover sufficient course content and achieve student learning outcomes of the equivalent course, through self-study guided by the instructor. Therefore, the instructor's assessments--exams, quizzes, homework, and papers—have to show that the student learned what was intended to be learned in the class.

The instructor should provide the student with a course syllabus that includes learning outcomes and maintains the assessments given to the student as evidences that the student achieved the learning outcomes.

A student is eligible for taking a directed study course if and only if all of the following conditions apply:

1. The student has a senior status
2. The student has a cumulative GPA of at least 2.0
3. The course should not be offered during the semester

The GPA requirement in the second condition may be dropped for capstone courses and English Thesis Workshops.

In general, opening a directed study course requires the approval of the Chair of the corresponding department. This should also be approved by the VPAA.

Study Abroad Policy

1. Eligibility, Pre-enrollment, and Procedures:
 - a. Enrolled students with good academic standing, who have earned 30 credits or more, and have a cumulative GPA of 2.5 or higher, may apply for credits earned as part of a study-abroad course at other collegiate-level institutions.
 - b. A maximum of 30 credits may be transferred from other institutions.
 - c. The credits submitted for transfer will be evaluated based on the below guidelines:
 - I. Study abroad programs must be evaluated by the chair of the department housing the course, before enrolling at the institution abroad
 - II. Students are responsible for obtaining two copies of the pre- approval form and collecting signatures. One copy should remain with the registrar's office, and one with the student
 - III. Students must also provide the department chair with the course description when filling out the pre-approval form
 - IV. When not directly equivalent but approved, the course can be counted as an elective
 - d. When not directly equivalent but approved the course can be counted as an elective
 - e. If the student hasn't declared his/her major, the credit transfer will be evaluated by their advisor according to the items (i) through (iv), listed above
 - f. Students on academic or disciplinary probation will only be eligible for study-abroad program credit transfer if approved by the Dean of Students
 - g. If the study abroad program is during the Fall or Spring semester, the student is also required to obtain a Leave of Absence form and submit to the registrar's office
 - h. During the study abroad program, students must inform the registrar's office of any changes such as course extension or withdrawal

- i. Upon completion of the external course, students must submit the approved credit transfer form along with an original copy of their transcript received abroad, to the registrar's office, after obtaining all relevant signatures
- j. If a student wishes to extend their summer/winter program, they must immediately contact the department chair and registrar's office. Similarly, in case of withdrawal from a study-abroad program, the student must immediately contact and notify the department chair or advisor, as well as the registrar's office

2. Post-enrollment and end of program

- a. An official transcript from the abroad institution must be submitted when submitting the Credit Transfer Approval form
- b. Grade
 - i. The grade obtained at the institution abroad must be a C or above in order to be eligible for credit transfer. If the institution abroad uses a different grade system, a sheet of grade equivalencies must be attached to the credit transfer pre-approval form
 - ii. While the credits can be submitted for transfer, the grade will not contribute to the cumulative GPA.

3. Limitations of transfer credits (as per transfer credit policy)

- a. Internships, occupational or vocational work
- b. Remedial / preparatory / pre-collegiate work (ESL work, for instance)
- c. Credits already applied to a previously-obtained degree
- d. Course completed more than 5 years prior to enrollment at AUIS
- e. Coursework graded as "Pass/Fail"
- f. Coursework completed solely online (coursework must be at least partially residential)

AUIS Attendance Policy - Academic Year 2022-2023

Sec. I – Attendance

Academic success requires class attendance and engagement. Students are expected to attend classes and to participate when given the opportunity.

All undergraduate students have a set minimum of absences before they incur a penalty in the course.

A student will incur a penalty after they miss:

- 2 classes for courses that meet once a week,
- 6 classes for courses that meet twice a week,
- 8 classes for courses that meet 3 times a week,
- 10 classes for courses that meet 4 times a week.

Instructors may be more lenient with the number of absences or with the types of penalties, but penalties must be stated on the syllabus in the first week of classes.

Students must keep track of their own absences, though instructors will notify students twice before they are penalized. These notifications will be sent out when students are approaching their final absence before a penalty is incurred. The Registration Office, the University Registrar, and the Dean of Students will be included on these notifications. (See “Appendix A” for a template for notifying students.)

Sec. II – Assessments

If there are assessments occurring on a day a student is absent, it is the student’s responsibility based on the course expectations to follow up with the instructor as soon as they are able to do so. The instructor will determine if a make-up is possible. If students are aware they will miss a class and are able to email, they should tell the instructor as soon as possible. It is the responsibility of the student to be aware of when major assessments are scheduled according to the syllabus. If students have a conflict with a scheduled assessment, they are responsible for notifying faculty immediately to discuss options. If a major assessment is missed due to an emergency, a student can file a Make-Up Assessment Request Form.. To do so, please see the following:

- Emergencies are defined as something unexpected and unavoidable. Illness and injury, accidents, bereavements, legal concerns, etc. are all examples of emergencies. This form is only for emergencies that caused a single assessment to be missed. **If you need support for more than one assessment, please see Section IV. Exceptions for short-term accommodations.**
- Major assessments are defined as any summative, standalone assessment that has a high impact on student performance (worth 10% or more of the overall grade). Exams, end-of-unit tests, major quizzes, project submissions and presentations, and research papers/essays are examples of major assessments.
- Items that are repeated regularly, have an option to have the lowest grade dropped, or are marked based on completion as opposed to learning (formative minor assessments) like homework, in-class check-ins, minor quizzes (anything that by itself is worth less than 10% of the overall grade) are not eligible for emergency make-up requests.

- Upon safe return to the classroom, the student must do these steps:
 1. Schedule a meeting with the faculty member to discuss what was missed, what they need to do to catch up, and what the requirements will be moving forward
 2. Fill out the Request Form after meeting with the faculty member within a week of the missed assessment. This form will be sent to the Dean of Students and the Director of Academic Success. They will notify the Faculty member and the Chair of the department. The deadline for completion is **one week after the meeting with the faculty member.**
 3. Wait up to a week for a response on approval and the new deadline/exam time if approved.
 - a. Note: In order to make sure that student progress is continued and the student does not fall farther behind, this deadline will be set based on the curricular requirements of the course. This could mean a short time from approval to notification to the make-up deadline or an extension that gives time to complete the assignment.

Sec. III – Faculty

Faculty will determine attendance based on the demands of their coursework. Faculty have the flexibility within this policy to customize the attendance expectations. All faculty members must actually take and record attendance, even if they do not have penalties embedded in their syllabi. Attendance records could be requested by Chairs, the Registrar, the Dean of Students, or the VPAA's office for documentation purposes and need to be up-to-date each week.

- (1) Faculty who prefer a stricter policy can hold with the minimum as written above. After students use their permitted absences, faculty can apply a penalty (failing the class, grade penalty, additional assignments, etc.).
- (2) Faculty need to notify students when they have reached approximately 90% of their absences. The Registration Office, the University Registrar, and the Dean of Students should be copied on this email for record-keeping purposes. This is especially important for faculty that will use a grade reduction or a course failure as a penalty. Having notifications documented supports AUIS faculty if a student files a Grade Appeal. (See Appendix A)
- (3) Faculty need to have clearly set and communicated policies for their attendance. This should be written on the syllabus, included on the course dashboard in Moodle, and verbally explained with the data displayed during Week One of classes. This multi-modal delivery approach ensures that students have access to the information and that faculty have recourse when students claim ignorance.
- (4) "Attendance" should not be a solo category on the syllabus. This frequently leads to students receiving double grade penalties (i.e., a zero on a quiz and a loss in attendance points) that force sick students to come to class, possibly infecting their classmates and the faculty. "Class Engagement", "In-Class Work", "Class Check-Ins," etc. are all options if a faculty member needs to fill in an Attendance-based grade category. Faculty are welcome to eliminate this completely without a replacement and adjust their percentages on other assessments accordingly.
- (5) Faculty are strongly encouraged to provide some mode of class record for students on Moodle. This can be a recording of the class itself, a flipped-classroom style recorded lecture, or a materials walk-through. These can be determined by the teaching style and course requirements. External videos (YouTube, Udemy, Khan Academy, etc.) can be great teaching resources, but are an insufficient substitute for faculty-recorded materials because they are not customized to the experience of the AUIS classroom.

Sec. IV – Exceptions (Emergencies, Medical Absences, and Remote Study)

Remote Study – Non-Emergency

Fall semester 2023 will be the last semester that AUIS will support long-term remote study across all courses for non-emergency purposes ([Please find the application link here](#)). For Spring 2024 and beyond, classes that are hybrid-learning compatible will be noted prior to registration. Students that have long-term life circumstances that limit their time on campus can find their flexibility through these classes. However, almost no classes at AUIS in Spring 2024 will not be hybrid. In order to maintain education standards and curriculum expectations, instructors who have expressed interest in offering hybrid-learning must demonstrate the ability to accommodate both in-person and remote-study students in consultation with their department chairs and, when needed, the VPAA Office.

For Fall 2023, in order to study remotely, students must meet the following requirements:

1. Documentation of their circumstances – this should come in the form of a letter of support from an external authority
2. A CGPA of 2.0 or above – Students on academic probation are not eligible for remote study.
3. Completion of 30 academic credits – first-year students are not permitted to take non-emergency remote classes
4. Able to attend assessments on-campus as determined by the faculty member – Students are aware of which assessments will need to be in-person and have a plan in place to be here on those days.
5. Ability to attend labs or other practical-learning components as required by the course – Weekly labs and practical learning modules are not available for remote study.
6. Able to maintain deadlines, requirements, and a passing grade in the course – Students that are in danger of failing the course due to negligence can have their remote exception revoked if the faculty member flags them to the Dean of Students and Director of Academic Success.
7. Completion and timely submission of the Remote Study Request Form as sent out to students by the Dean of Students.
8. Approval from the Dean of Students in consultation with affected faculty.

Short-Term Accommodations

Students with short-term extenuating or emergency circumstances can submit documentation and a request for accommodation to the Director of Academic Success and the Dean of Students. Students have the right to privacy and communications between themselves and members of the Student Services team—a student’s information will not be shared without their consent. Once the student approves how much information is permitted to be disclosed, either the Dean or the Director will notify the instructor so accommodations can be put in place.

1. Short-term is defined as a situation that will not likely repeat across multiple semesters.
2. Extenuating circumstances are situations that could result in more time away from class than is permitted due to factors outside the student’s control. Students with unexpected health issues or acting as temporary caretakers for immediate family while also enrolled in courses are examples of extenuating circumstances.
3. Emergency circumstances are unexpected situations that may or may not disrupt a student’s physical attendance but will likely interfere with their learning. Physical injuries, harassment/assault, and mourning/grief are all examples of emergency circumstances.
4. Students experiencing a few days of illness or extenuating obligations should use their absences as permitted by the attendance policy and the syllabus. These do not require completion of short-term accommodations. Please see the assessment policy above for emergency assessment make-ups.

5. If and when a student is sick or has a personal emergency (such cases would still need to have documentation) and runs the risk of failing the course because they no longer have any "allowed absences," then the student can apply for short-term accommodations. In cases when a student may not be performing well in the course or for whom their personal emergency presents a serious obstacle to their timely completion of the course requirements, the instructor, the Director, and/or the Dean may ask the student to withdraw from the course with a grade of W or WF or receive a grade of Incomplete. Students found falsifying requests will face disciplinary action.
6. Accommodation requests (including those coming from the CARES team) are sent to the instructor for implementation. Instructors who would like to adjust or discuss the request before implementation can discuss the case with CARES, the Director of Academic Success, or the Dean of Students.
7. Non-emergency situations (especially part-time or full-time work) that force a student to be absent from campus need to be documented. If not previously approved by the Dean of Students, students would have to drop or withdraw from the course.
8. Short-term emergencies that overlap with multiple major assessments will include make-ups, extensions, and adjustments as a part of the accommodation plan.
9. Labs and other practical-learning courses / modules / sections will not be offered remotely, so students with short-term emergencies will be accommodated on a case-by-case basis to determine how to proceed.

Long-Term Accommodations

Students with long-term or chronic support needs should contact the Director of Academic Success to determine what additional support may be provided.

Appendix A (Template for Faculty to Inform Students About Absences):
Form Email: Absence notification [include course code]

Dear [STUDENT NAME, ID NUMBER],

You are receiving this email because you reached [NUMBER] absences in [COURSE NAME OR CODE]. You have [NUMBER] absences remaining. As stated in the syllabus, in class, and on Moodle, once you use all your absences, you will [INSERT PENALTY HERE AS EXPLAINED ON THE SYLLABUS]. The Registration Office, the University Registrar, and the Dean of Students have been copied on this email for their records.

AUIS cares about your academic success. If you are struggling academically and need guidance, the Dean of Students and the Director of Academic Success are here to help. Email them at oliver.keels@auis.edu.krd and elizabeth.osullivan@auis.edu.krd. Tutors are available at the Math Center and the Writing Center, as well as Centers within the majors. Reach out to the Chair of the department for hours and information.

If you would like to practice your language skills, APP provides peer tutors for English practice. For more information, email Mr. Ahmed Aram at ahmed.aram@auis.edu.krd.

If you are a scholarship student, Ms. Nancy Narbut is available to make sure you know how academic performance affects your funding. Email her at nancy.narbut@auis.edu.krd.

Best wishes,

Grading System

Grades are reported as letters. The 4.0 grade point system is used to calculate student grade point averages (GPAs). The GPA is calculated by adding the total number of gradepoints earned and dividing by the total number of applicable credits. Letter grades are awarded according to percentage grades averaged from course assessments as described in each course syllabus. Grades, definitions, grade points and percentages are listed below:

Grade	Definition	Grade Points	Percentage
A	Superior	4.0	93-100
A-	Superior	3.7	90-92
B+	Above Average	3.3	87-89
B	Above Average	3.0	83-86
B-	Above Average	2.7	80-82
C+	Satisfactory	2.3	77-79
C	Satisfactory	2.0	73-76
C-	Satisfactory	1.7	70-72
D+	Passing	1.3	67-69
D	Passing	1.0	60-66
F	Failing	0	59 and below
W	Withdraw	n/a	n/a
WF	Withdraw Failing	n/a	n/a
I	Incomplete	n/a	n/a

Incomplete Grades

In exceptional circumstances it is sometimes appropriate for professors to submit “I” for “Incomplete” as a student’s final grade. These typically occur when students have an excusable reason for missing a final assessment – death in the family, debilitating illness etc. If an incomplete grade is submitted, the grade must be completed before the 30th day of the next semester. When submitting “I” for a final grade, professors indicate to the Registration and Records Office which grade to assign if the student work is not completed by the deadline. It is the student’s responsibility to complete the course-work necessary to earn a complete grade.

If the grade was not submitted after 30 days of the start of next semester then the student will receive the grade that was indicated on the Incomplete Grade Form by faculty.

Receiving an “Incomplete” for a prerequisite course is not satisfactory for taking the next course in the sequence. If a student needs the course in order to take the next course during the next semester, then it is the student’s responsibility to complete the work before the start of the next semester. If the student completes and submits the incomplete work to the professor on the first day of the next semester, it is the responsibility of the professor to submit a complete grade by the end of the course-add period.

Prerequisites

Prerequisites for each course are listed in this catalog with the course descriptions. If a course is specified as a prerequisite, students must complete that course with a satisfactory grade before they may enroll in the next course. Unless otherwise specified, a satisfactory grade is a D or better. F, W, WF, and I are not satisfactory grades for prerequisite courses. For some prerequisites the minimum satisfactory grade may be higher than a D, and these are notated explicitly in the course descriptions.

Grade Appeals

Students can appeal final grades using the following procedures:

1. Students may file a grade appeal if they believe that:
 - a. any policy-violating or unreasonable actions or inactions by the instructor, or
 - b. any policy-violating or unreasonable expectations by the instructor, or
 - c. any disruptive or unreasonable circumstances, or
 - d. any other unwarranted factors, inhibited the student's performance and the resulting outcomes, and should have been (but were not) accommodated by the instructor during the grade-calculation process. The final decision regarding the degree of reasonability of specific actions, expectations, or circumstances will be made by the Dean of Students.

2. Based on the general rules outlined in the AUIS Academic Catalog, students can appeal final course grades using the following process and procedures and by filling out the "Grade Appeal Form." All efforts and claims must be documented.
 - a. Students who have concerns regarding the final course grade for one of the above reasons should contact the appropriate instructor within two weeks after the grade was recorded, or within two weeks after their financial hold for the Spring 2022 semester was removed, whichever event date occurs last; there is no other specific deadline to file a grade appeal so that students currently unable to pay their Fall tuition are not at a disadvantage. The student must explain the nature of the complaint and the specific request, and must provide all available and relevant documentation. The instructor will review the case, make a decision, and send a written response to the student within three working days after the grade appeal was received. If the grade appeal is approved and if this results in a different grade, the instructor will submit a grade-change request to the Registration & Records Office within five working days after the decision.
 - b. If the instructor does not respond within three working days or if the student wishes to appeal the decision by the instructor, then within five additional working days, the student can submit a grade appeal by email to the instructor's department chair for the course in question. The student must explain the nature of the complaint and the specific request, and must provide all available and relevant documentation. The department chair will review the case, make a decision, and send a written response to the student within five working days after the grade appeal was received. If the grade appeal is approved and if this results in a different grade, the department chair will inform the instructor and submit a grade-change request to the Registration & Records Office within five working days after the decision.

- c. If the department chair does not respond within five working days or if the student wishes to appeal the decision by the department chair, then within five additional working days, the student can submit a grade appeal by email to the Dean of Students for the course in question. The student must explain the nature of the complaint and the specific request, and must provide all available and relevant documentation. The Dean of Students will review the case, make a decision, and send a written response to the student within 10 working days after the grade appeal was received. A copy of the decision will be sent to the instructor, the department chair, the student's academic advisor, and to the Registration & Records Office to be placed in the student's file; if the appeal is approved, the Dean of Students will oversee the submission of a grade-change form to the Registration & Records Office. The decision made by the Dean of Students is final and cannot be appealed.

Grade Replacements

All students pursuing an undergraduate degree may repeat a course for the purpose of replacing a poor grade with a higher one for GPA calculations. All course repeats must be done at AUIS. The course being retaken must be the same course first taken, unless the course is no longer offered at AUIS, or during the two-year period. In such a case, only the department that offered the same course may substitute another course with the approval of the major department. All attempts of a given course will appear on the official transcript with the grade(s) earned. The transcript will have an explanation that the GPA is calculated using all grades earned in a course except the initial attempt when a course has been repeated.

If the course is not offered for three consecutive semesters then the student can take a new course that is suggested by the department chair.

Academic Probation

AUIS requires students to maintain a minimum cumulative GPA of 2.0 or be placed on academic probation. 2.0 is the minimum GPA needed for Graduation. The Registration and Records Office will notify students in writing of their probationary before the start of fall and spring semester, with a copy to the Dean of Students. The Registration and Records Office will notify students in writing of their probationary before the start of fall and spring semester, with a copy to the Dean of Students.

Students placed on academic probation are subject to the following measures during their probationary period:

- Undergraduate students are required to meet with an assigned academic adviser at least once every two weeks.
- With their advisers, each student on probation will produce an action plan aimed at improving the student's performance.
- Students on probation cannot register for more than four courses. All students with more than 4 registered courses will be audited the most recent registered course will be dropped.
- Students on Probation must complete an Action Plan and attend at least 2 Academic Success Workshops. The Dean of Students will share more details with all students on Probation at the start of the fall and spring semesters. This policy went into effect Spring 2023.

According to the academic catalog, AUIS requires that students on academic probation meet regularly with their academic advisor and that they produce an action plan to improve their GPA. Students on probation are now required to take the following steps during the fall and spring semesters:

Meet with their academic advisor in person or on Zoom before the add deadline has passed. Advisors will have a form to complete verifying that this meeting has occurred.

Complete and submit an action plan to their advisor and the Director of Academic Success by the drop deadline.

At least two progress check-ins and updates (through email or a meeting) before the WF deadline. Faculty advisors will track the dates and outcomes of these updates.

A full in-person meeting during the advising period to discuss status, the upcoming term, and plans for winter/summer if needed.

A final check-in/update before final exams with current grades and expected final marks.

In order to support this, faculty advisors will be informed of their advisees' probation status. They will track meetings, action plans, status updates, and advising outcomes while students are on academic probation. This information will be shared with the Director of Academic Success and the Director of the Registration Office and may be shared with the Dean of Students and the VPAA as needed.

Please note:

A failure to follow these steps will result in a notification to their advisor and a meeting with the Director of Academic Success and the Director of the Registration Office. Students that do not complete these steps more than one semester will be reported to the Dean of Students and the Chair of their department.

Students in their first semester of probation are permitted to continue in campus leadership roles. Students that are on probation for more than one semester will be required to step down from campus leadership until their academic standing improves.

Academic Dismissal

Students who have been found guilty of three Academic Integrity Offenses will be dismissed from the university without the option to re-apply.

If a student remains on academic probation for three consecutive semesters, the student will be automatically referred to the Dismissal and Readmissions Committee (DRC). The DRC is comprised of the department chairs with the Dean of Students and the Director of Student Services as nonvoting ex officio members. The Committee may dismiss a student if the student has a GPA below the thresholds above. If a student is not dismissed, he or she will be placed on probation. Students may only be dismissed for academic reasons by the DRC. A student dismissed from the University for reasons of academic integrity may not apply to the DRC for readmissions. In rendering a decision, the Committee will take into account the student's academic performance, attitude, and history of integrity offenses, if any. Decisions of the DRC are final and may not be appealed.

If a student is dismissed, the Registration and Records Office will send a letter notifying the student of academic dismissal, with a copy to the Dean of Students and the Director of Student Services.

A student dismissed for academic reasons may apply for readmissions after the student has been outside of the university for at least one semester. To apply for readmissions a student should complete and submit an application form to the Registration and Records Office, and complete and submit a personal essay indicating why the student would like to be readmitted and outlining a plan for academic success. This should be submitted at least one week before the start of the semester of readmissions.

The DRC will review readmissions applications and decide whether or not to readmit the students. Students may only be readmitted during full semesters (fall or spring). If readmitted, students will be put on academic probation during their first semester back. If not readmitted, students may apply for readmissions for following semesters.

A re-admitted student must re-apply for any scholarships, awards, housing or financial assistance previously awarded. Readmitted students will receive credit for courses previously passed at AUIS as pass/fail grades. Students may not be reinstated at AUIS more than once. Students may not reapply to AUIS if dismissed for reasons of academic integrity or for behavioral violations.

Undergraduate Readmissions Policy

A candidate for readmissions to the undergraduate program is an individual who was admitted and attended the program previously. A readmissions applicant is defined as one who failed to enroll for a semester (term dropped), withdrew or was academically dismissed.

By applying for readmission, a candidate understands that he/she will be viewed as a new student with a new enrollment contract. Readmitted students are responsible for the graduation requirements, tuition, and academic policies that exist at the time of re- entrance.

A student dismissed for academic reasons may apply for readmission after the student has been outside of the university for at least one semester. To apply for readmission a student should complete and submit an application form to the Admissions Office, and complete and submit a personal essay indicating why the student would like to be readmitted and outlining a plan for academic success. This should be submitted at least one week before the start of the semester of readmission.

The DRC will review readmission applications and decide whether or not to readmit the students. Students may only be readmitted during full semesters (fall or spring). If readmitted, students will be put on academic probation during their first semester back. If not readmitted, students may apply for readmission for following semesters.

Students may not reapply to AUIS if dismissed for reasons of academic integrity or for behavioral violations.

A re-admitted student must re-apply for any scholarships, awards, housing, or financial assistance previously awarded. Readmitted students will receive credit for courses previously passed at AUIS as pass/fail grades. Students may not be reinstated at AUIS more than once.

Deadline

The above materials must be submitted to the Registrar and DRC one week before the start of a full semester.

Leave of Absence from the University (LOA)

Students should inform the university before the semester starts that they will not study for one or two semesters.

APP will accept one LOA for students who have not attended classes through the end of Week 1. Students are allowed to take one LOA during their duration in APP. Students will be notified by the Student Records Coordinator about their LOA. If students do not return after their LOA expires, they will be permanently dropped from AUIS at the start of the following term.

UG Students can request a leave of absence from the university for up to two semesters. If students do not return after their second LOA expires, they will be permanently dropped from AUIS at the start of the following term.

To be eligible for a leave of absence, students must be in good academic standing and show some type of personal hardship that prevents them from successfully completing the academic year. Students requesting a leave of absence must complete and submit a Leave of Absence form to the Registration and Records Office, available on the AUIS website.

Students who have not successfully completed one undergraduate semester cannot take a leave of absence from the university.

Withdrawal from the University

If students need to withdraw from the University, they must complete and submit a Withdrawal form to the Registration and Records Office, available on the AUIS website.

Transcripts

A transcript of a student's academic record may be requested by the student from the Registration and Records Office. The transcript will include the matriculation date, all courses attempted for each semester, the grade and credits earned for each course, the semester grade point average, and the cumulative grade point average. Minor/s, concentration/s.

A student may request official transcript before graduation. Each copy will cost \$10. Alumni will receive one verified transcript after one month from their graduation. Additional copies may be requested for \$10 each.

Contact Hour Requirements

Courses must meet the following number of contact hours per semester or term to fulfill the requirements for awarding credit:

Credits Awarded	Contact Hours
1	13
2	26
3	39
4	52

Graduation and Commencement Policy

Undergraduate Requirements to Graduate

These are non-negotiable requirements to receive a degree from the American University of Iraq, Sulaimani:

1. Completed Application to Graduate by announced deadline
2. Satisfaction of debts and obligations owed by the student to all relevant departments, including but not limited to:
 - a. Tuition fees, deposits
 - b. Dormitory- related charges
3. 2.0 cumulative GPA (without rounding up)
4. Completion of all Core credits
5. Completion of all Major requirements
 - a. Major requirements are assigned at point of entrance to the undergraduate program, but may vary slightly overtime
 - b. Major requirements that change during the pursuit of a degree should not affect a student's ability to graduate on schedule
6. The minimum number of credits required by their major.
 - a. Students may graduate with more than the minimum number of credits

Requirements for Annual Commencement participation

Commencement runs only once per year. As such, AUIS allows for some flexibility with participation in the public ceremony. Participation in the annual Commencement does not necessarily constitute formal graduation; formal graduation from AUIS only results from an official, approved Application to Graduate (see above for policy) that reflects completion of all academic requirements and other obligations.

To qualify for Commencement participation, students should fill out "Confirmation of Commencement" form before the deadline.

Students must meet the following criteria to participate in the AUIS Commencement Ceremony:

1. Fall graduates - The degree earned must have already been conferred after the fall semester (and the Application to Graduate must have been approved, and available in the student's file).

2. Spring graduates – Final grades and CGPAs will not be known until about two days before the Commencement. As such, spring term Commencement participants are allowed additional flexibility.
 - a. Unless all graduation requirements are met, commencement participation does not constitute official graduation. No diploma will be awarded at the ceremony unless all graduation requirements are met.
 - b. Students may take part in the Commencement if a maximum of 2 courses (a regular load on summer term) are remaining for them to satisfy the graduation requirements. In this case those students are expected to finish their remaining courses successfully, attaining a CGPA of 2.0 or higher, by the end of summer term. Students must have registered for the remaining course(s) a week before the Commencement Day (graduation application will be reviewed before the new academic year).
 - c. A student who cannot complete graduation requirements in the summer, and must return for the fall semester, may not participate in the Commencement. Such students should attend the annual Commencement in the next spring, following completion of all requirements.
 - d. Students with a minimum CGPA of 2.0 are allowed to walk in the commencement under the condition of fulfilling the conditions of part (a) above.

Undergraduate Student Speaker

1. Because student speakers need at least several weeks to prepare a speech for the Commencement ceremony, selection of such speakers cannot wait for the submission of final grades. Accordingly, the student speaker shall be voted on and approved by AUIS Graduation Committee based on the highest cumulative GPA for the fall and spring cohorts – as of fall term (spring term will not be factored in). The student should not have any courses that are retaken in order to be eligible to be the valedictorian.

MBA Graduation

Minimum Requirements for Commencement Participation:

- Completion of all required courses by end of the Summer;
- Cumulative GPA of 3.00 or higher, without rounding up
- Thesis completed, submitted
- If, in the extraordinary case that thesis is pending review at time of Commencement, students will not formally graduate (no diploma issued) but ceremonial participation is allowed

MBA Student Speaker Selection Guidelines

The student speaker shall be chosen based on the highest cumulative GPA for the graduated cohorts. If the student doesn't agree to participate, then the students shall nominate their speaker.

Graduation Honors Latin Honors

AUIS employs the classic American “Latin Honors” for graduates. Honors are awarded based on CGPA, including spring semester:

- Cum Laude – 3.40 – 3.59 cumulative GPA
- Magna Cum Laude – 3.60 – 3.79 cumulative GPA
- Summa Cum Laude – 3.80 – 4.0 cumulative GPA Undergraduate Department Honors

The highest CGPA from each major, for each cohort of graduates, shall be awarded Department Honors upon graduation.

INTERNATIONAL STUDENTS

AUIS offers an American-style liberal arts education to students of any nationality. AUIS currently has students enrolled from all over Iraq, the Middle East, Europe and the world. In order to qualify for admissions, applicants must do the following:

1. Fill out the Information Form
2. Equalize high school degree into the Iraqi Baccalaureate system

Any applicant to AUIS who completed a high school degree outside of Iraq must equalize their score into the Iraqi system through the KRG Ministry of Education, Directorate of Exams.

AUIS can assist with the process of equalization but it is not responsible for the final outcome. The process and requirements vary by country and are the sole responsibility of the KRG Ministry of Education, Directorate of Exams.

TRANSFER CREDITS AND ADVANCED STANDING

New and current students may apply for external credits to be transferred to their AUIS records. (AUIS will not consider transfer credit unless an external institution has already formally issued credits.) Credits submitted for transfer will be evaluated based on the following guidelines:

AUIS accepts pre-collegiate, advanced standing such as AP, IB and A-Levels as equivalent to introductory level undergraduate transfer credits. Please see the advanced standing charts for specifics.

At the collegiate level AUIS accepts transfer credits from properly accredited institutions with convertible credit systems that have coursework exclusively in English. A final grade of ‘C’ (73% minimum) or higher must be attained in each individual course. A student may not transfer more than 60 credits (equivalent to four full-term terms) to AUIS.

Upon request for collegiate transfer credits, AUIS Registration and Records Office evaluate accreditation, credit system, language of instruction and grade. Relevant department chairs will evaluate level, scope and academic content of courses for approval of transferability and course equivalency.

New students should apply for advanced standing or transfer credits through the Admissions Office by submitting an Advanced Standing Transfer Credit Form prior to enrollment. Current students wishing to obtain credit from a study abroad, winter or summer program should complete the "Pre-Approval Form" before registering with an external program. Credits will not be processed until the course is completed. All collegiate transfer credits must be finally approved by department chair(s) and the Registration and Records Office via the Credit Transfer Approval Form.

Advanced Standing Procedure

Applicants to AUIS may request advanced standing credit for certain Advanced Placement, International Baccalaureate or A-Level courses.

To receive advanced standing credits, new applicants should:

1. Review the table of acceptable AP, IB and A-Level coursework
2. Send a PDF of an official score report along with online application form and other official documents
3. Allow 1-5 business days for approval
4. Co-sign the Advanced Standing Approval Form during enrollment session

Collegiate Level Work Procedure

Applicants to AUIS may request the transfer of collegiate work, if the work was completed at international universities which have (a) appropriate accreditation, (b) comparable credit-systems (US, ECTS or CATS), (c) English as the language of instruction, and (d) comparable academic content (as determined by AUIS department chairs). To apply for transfer credit, applicant should:

1. Review the full 2014-2015 Transfer Credit Policy
2. Send a PDF of university transcript along with other official documents to the Admission office and complete the online application.
3. Complete the student section of the "Approved Credit Transfer Form"
4. Allow 1-2 work weeks to process with the department chair
5. Await final email with results of Approved Credit Transfer Credit Form

Collegiate Level Work within Iraq Procedure

AUIS does not accept public university credit from within Iraq. As of 2014, the credit system, language of instruction and curriculum is not sufficiently similar to justify transfer of credits.

AUIS only accepts private/independent transfer credit within Iraq from the University of Kurdistan, Hawler (UKH).

Limitations of Collegiate Transfer Credits

AUIS will not consider the following for potential transfer credits:

1. Internships, occupational or vocational work
2. Remedial / preparatory / pre-collegiate work (ESL work, for instance)
3. Credits already applied to a previously-obtained degree

4. Courses completed more than 5 years prior to enrollment at AUIS
5. Coursework graded as “Pass/Fail”
6. Coursework completed solely online (coursework must be at least partially residential)

Advanced Standing Chart:

IB course	Scores	AUIS Equivalent	AUIS Credits
Biology HL	6, 7	SCI 101, BIO 301	6
Chemistry HL	6, 7	SCI 101, CHEM 232	6
English HL	6, 7	ENG 101	3
Economics HL	6, 7	ECO 220	3
Visual Arts HL	6, 7	ART 102	3
History HL	6, 7	CIV 101	3
Mathematics HL	6, 7	MTH 101, MTH 112, MTH 121	6
Philosophy HL	6, 7	PHI 202	3
Physics HL	6, 7	SCI 102, PHYS 201	3
Psychology HL	6, 7	PSY 101	3
AP course	Scores	AUIS Equivalent	AUIS Credits
Biology	4, 5	SCI 101, BIO 301	6
Chemistry	4, 5	SCI 101, CHEM 232	6
English Lit and Comp	4, 5	ENG 101	3
Economics – Micro	4, 5	ECO 220	3
Economics – Macro	4, 5	ECO 221	3
Environmental Science	4, 5	ENV 201	3
History of Arts	4, 5	ART 102	6
US History	4, 5	HST 202	3
World History	4, 5	CIV 101	6
Calculus (AB)	4, 5	MTH 101, MTH 112, MTH 121 MTH133	9
Calculus (BC)	4, 5	MTH 101, MTH 112, MTH 121, MTH 133	9
Physics B	4, 5	SCI 102, PHYS 201	6
Physics C	4, 5	SCI 102, PHYS 201	6
Psychology	4, 5	PSY 101	3
A Levels (A-Levels only unless noted)	Scores	AUIS Equivalent	AUIS Credits
Biology	A,B	SCI 101, BIO 301	6
Chemistry (AS – A2/6 units)	A,B	SCI 101, CHEM 232	6
Math (P1 + P2)	A,B	MTH 101	3
Math (P1 + P2+P3+P4+P5+P6)	A,B	MTH 101, MTH 112, MTH 121	6
Math (C1 + C2+C3)	A,B	MTH 101	3
Math (C1 + C2+C3+C4+ 2 app units)	A,B	MTH 101, MTH 112, TH 121	6
Physics	A,B	SCI 102, PHYS 201	6

INVOICE AND PAYMENT

Invoice and Payment Process

Starting from Fall 2023, all new students will be asked to pay half (50%) of the tuition for the semester in order to be able to sign the enrollment contract and become an AUIS student for the first semester.

For the following semesters, to pay half (50%) of the tuition for the semester, two weeks prior to the start of semester to be allowed in classes.

Term/ Semester	Program	Installment	Percentage of Tuition	Tuition Payment Due Date
First	APP and UG	First (advance payment)	50%	Upon signing enrollment contract (incl. the \$500 non-refundable tuition deposit).
		Second	50%	Last day of the fourth week of classes.
Second and following	APP and UG	First (advance payment)	50%	Two weeks prior to the start of the term/semester.
		Second	50%	Last day of the fourth week of classes.

Returnee students, admitted to AUIS prior Fall 2023:

Enrolled students will receive an invoice through their AUIS email accounts. This process will take place after the first week of classes in the term for the Academic Preparatory Program ("APP") and following the second week of classes in the semester for the Undergraduate Program ("UG"). The payment due date will be the last day of the fourth week of classes no later than 05:00 pm, as the date clearly marked in the Academic Calendar.

All students, returnee and newly admitted:

1. Students should submit tuition payments to the Finance Office.
2. Before a term commences or within the first week of a term, APP students have the option to take a leave of absence or withdraw without incurring financial obligations. This can be done before the term drop deadline, which is no later than 05:00 pm on the last day of the first week of classes.
3. Before a term commences or within the first two weeks of a semester, undergraduate (UG) students have the option to take a leave of absence or withdraw without incurring financial obligations. This can be done before the course drop deadline, which is no later than 05:00 pm on the final day of the second week of classes.
4. Following the conclusion of the first week of the term after 05:00 pm, APP students are obligated to pay full tuition for the term, irrespective of their enrollment status.
5. Following the conclusion of the second week of the semester after 05:00 pm, undergraduate (UG) students are obligated to pay full tuition for the term, irrespective of their enrollment status.
6. Students who fail to meet payment deadlines will face restrictions, including the

inability to add courses, register for upcoming semesters (due to a Financial Hold on students account in SONIS), and access final grades (account lock-out), until the payment for the term is settled.

7. Unpaid tuition invoices remain indefinitely on student record until paid off; all future registrations, status changes or readmissions will be blocked until the debt is settled.

INTEGRITY, BEHAVIOR AND DISCIPLINE

Rules Governing Academic Integrity, Academic Year 2022-2023

I. General Principles

- (1) **Academic Integrity is the cornerstone of the mission and vision of the American University of Iraq, Sulaimani (AUIS).** As the AUIS Academic Catalog states, “Academic Integrity is honest behavior in a school setting. Integrity in speech, research, and writing is an essential part of teaching and learning at AUIS. The University expects students to adhere to accepted standards of academic honesty and integrity.”

Strict rules are necessary in order to improve the learning experience for all AUIS students and to boost the reputation of the education and degrees that they receive. Cheating / plagiarizing / lying / stealing are dishonorable acts that hurt students because such acts prevent students from developing new ideas and skills that will contribute to AUIS, the broader Sulaimani community, the Kurdistan region and Iraq, and humanity as a whole.

Thus, all AUIS students must act with integrity in their work because that approach will benefit them in the long term. Being honest and making mistakes are the only way to see our shortcomings, to learn, and to grow.

- (2) At the end of each assignment, the following statement should be written and signed: “On my honor as an AUIS student, I pledge that I have neither given nor received any unauthorized assistance on this academic assignment, exercise, or examination.”
- (3) **It is critical for students to remember that there are no “compassionate decisions” or “clemency” in the AUIS Academic Integrity System. Poor health, personal and/or family emergencies, or the difficulty of an assessment are not acceptable excuses for Academic Misconduct. Instructors and the Dean of Students will not accept such explanations from students as a defense.**

Students facing family or personal emergencies and/or emotional or mental distress should contact their course instructor, the Director of Academic Success, and the Dean of Students before an assessment deadline or exam.

- (4) For additional information on how to prepare assessments that follow the Rules on Academic Integrity at AUIS, students must review this video presentation from March 2021: <https://www.youtube.com/watch?v=6J3X4kulSq8>
In line with the above, the Office of the Dean of Students (ODOS) at AUIS has instituted the following rules.

II. Academic Misconduct Severity Levels

- (1) **Premeditated Academic Misconduct:** Premeditated academic misconduct refers to instances where there has been a significant attempt to deceive or misrepresent the originality, authenticity, quality or learning represented by the work submitted by students. Instances of premeditated academic misconduct will result in an automatic “F” in the course. Examples include—but are not limited to—stealing instructor test materials, submitting another person’s work as original, fabricating data in research, the recruitment of others for the completion of assignments (including copying another student’s homework).

All faculty **must** forward such cases to the Dean of Students if they suspect this type of misconduct. The determination is made by the Dean of Students and may be appealed to the VPAA, whose decision is final.

The Dean of Students may convene a committee with faculty members and Student Services staff to review “Premeditated” cases.

- (2) **Grossly Negligent Academic Misconduct** will result in a penalty of the instructor’s choosing (including and up to an “F” on the assignment). Examples include—but are not limited to—having prohibited materials or tools on oneself during an examination **even if their use cannot be proven (*prohibited materials and tools, including AI software, must be announced by the instructor*)**, or a systematic use of a source without attribution, or a systematic failure to adequately paraphrase sources.

The determination is made by the instructor, who will inform the student, the student’s academic advisor, the Dean of Students, the Registration Office, and the University Registrar in writing. The student may appeal the instructor’s decision to the Dean of Students, whose decision is final.

III. Procedures governing Academic Misconduct investigations

- (1) When instructors suspect “Premeditated Academic Misconduct” or “Grossly Negligent Academic Misconduct” in their course, they will submit a full report to the Dean of Students through the “Academic Misconduct submission form.”

For “Premeditated” cases, the Dean of Students will contact the student who is suspected of Misconduct and issue a decision.

- (2) If an instructor finds a student as having engaged in “Grossly Negligent Academic Misconduct,” the instructor will also inform the student, the student’s academic advisor, the Dean of Students, the Registration Office, and the University Registrar via email.

Students who wish to appeal their instructor’s “Grossly Negligent Academic Misconduct” decision to the Dean of Students should submit their appeal within 5 (five) business days of receiving the instructor’s email: [Appeal form for students suspected of Grossly Negligent Academic Misconduct](#).

If a student does not appeal the instructor’s “Grossly Negligent Academic Misconduct” decision within 5 (five) business days, the instructor’s decision will stand.

(Students who receive an error message that they “do not have permission” to access the Appeal Form above should contact the Dean of Students immediately.)

- (3) All students who co-author a paper or prepare joint projects that are under an Academic Misconduct investigation will be the subject of the investigation.
- (4) Students **will not** contact their instructors about an Academic Misconduct case while the Dean of Students is investigating the case.
- (5) The Dean of Students will conclude an Academic Misconduct investigation within two weeks of receiving the case from the instructor.
- (6) Instructors **will not** assign a grade to a student’s work that is the subject of a “Premeditated Academic Misconduct” until the investigation is concluded.
- (7) Students **may not** ask instructors to assign a disciplinary grade, such as an “F” or zero on an assessment, or ask for a make-up assessment for admitted or suspected “Premeditated Academic Misconduct” in lieu of having their case referred to the Dean of Students.
- (8) If the Dean of Students finds the student innocent of the suspected Academic Misconduct upon concluding the investigation, the Dean of Students will inform the student, the course instructor, the student’s academic advisor, the Registration Office, and the University Registrar via email.
- (9) When an Academic Misconduct investigation takes longer than the semester grade submission deadline, the instructor will issue the student with a grade of “Incomplete” (“I”). Upon concluding the investigation, the Dean of Students will inform the instructor, the student’s academic advisor, the Registration Office, and the University Registrar of the result of the investigation.
- (10) Students who engage in Academic Misconduct for the second time will undergo mandatory training under the supervision of the Dean of Students and/or the Director of Academic Success.
- (11) Students who engage in Academic Misconduct for the third time will be referred to the Dismissal and Remittance Committee (DRC) with a motion to dismiss the student from the University

IV. Status of Follow-Up Oral Exams for Assessments completed outside the classroom

- (1) All instructors reserve the right to request a follow-up oral exam for online assessments provided that instructors have stated their position in their course syllabi at the beginning of the semester.
- (2) Follow-up oral exams can be held over video call or in person depending on instructor preference.
- (3) Instructors must state how they will assess the weight of a follow-up oral exam in relation to the online assessment.

- (4) The difficulty level of the follow-up oral exam should be similar to the difficulty level of the online assessment.

V. Behavior

AUIS students must at all times exercise care and responsibility in their dealings with others. Our community of students, faculty, and staff is incredibly diverse. This diversity represents a strength of our university. It is the responsibility of all students to engage with one another with civility and respect to maintain an environment where all members of our community can participate. Violations of the following standards may be considered Behavioral Violations. This applies to students inside classrooms, on campus (including the dorms), and, in some cases, off campus. Students are reminded that social media (e.g. Instagram) are considered to be public.

Inside the Classroom

Attendance. Students' success at AUIS requires strong attendance in all classes. All absences are recorded as part of the AUIS Attendance Policy (see Attendance Policy). Professors may, at their discretion, exclude a student from class if the student arrives late.

Classroom Etiquette. Student conduct in class should be respectful to all. Faculty members will caution students who do not conduct themselves in a respectful manner. If inappropriate behavior continues, a teacher may request to have a student leave the class, and the appropriate disciplinary measures will be taken. Students must leave the classroom if asked to do so by professors or administrators.

Compliance. Students are expected to follow the reasonable instructions of faculty members so that classes proceed in an orderly manner.

English. Students are to speak English only in class.

Use of electronics in the classroom. Students will be allowed to use electronic devices (e.g. laptops, smart phones) at the discretion of the professor. If allowed, electronic devices should be used only for class-related purposes. Mobile phones should be silenced during class time, if not deactivated.

On Campus (including AUIS Housing, i.e. "the dorms")

Alcohol and drugs. Drugs of abuse, including alcohol, are forbidden at AUIS. Students found in possession of alcohol or drugs on campus may be issued a behavioral violation. This applies to the private rooms in the dormitories as well as public spaces on campus.

Assault. Physically attacking another member of the AUIS community will result in a Behavioral Violation, possibly including suspension or dismissal from the University without the possibility of reapplying (expulsion).

Conduct between men and women. AUIS students must show respect for others and be sensitive to the surrounding cultural context. All students have the right to participate in university classes and activities and should be freely permitted to do so regardless of gender. No student has the right to prevent or restrain another student from participating in sanctioned university activities.

English. While at AUIS, students are expected to speak English.

Harassment. To harass is to repeatedly annoy or bother another person in spite of being asked to stop. This includes verbal and/or physical conduct that, because of its persistence or severity, prevents others from engaging fully in university life. In particular, harassment may include verbal or physical behavior directed at an individual that is abusive of that individual's distinguishing characteristics, including race, gender, age, religion, or national origin, to such an extent as to substantially interfere with the individual's work or education or adversely affect one's living conditions. The harassment of others by AUIS students will not be tolerated.

Identification cards. The university requires ID cards be carried at all times and presented when requested by faculty and staff.

Language. Student language must at all times be appropriate for an educational community. Lewd, obscene, vulgar, sexually suggestive language or gestures are not acceptable.

Property. Students will at all times respect the physical and intellectual property of the university and other persons while on campus. Theft of any kind is strictly prohibited. Vandalism, including damaging or defacing the property the university or other individuals, is prohibited. The use of personal property of other individuals on campus, such as laptops, mobile phones, or sports equipment, without permission of the owner is prohibited. Unauthorized entry into premises (e.g. entering the dormitory as a non-resident without staff permission) is prohibited.

Political and Religious Activism. AUIS is a pluralist community that represents a multi-religious, multi-ethnic, multinational, and multilingual society. It is an apolitical, secular, and nonprofit institution to ensure that every student can attend regardless of their background. To this end, on campus advocacy for political parties, religious groups, ethno-nationalism, or causes that violate the core values of the institution is prohibited. This is not to be construed as a prohibition against personal religious observation or celebration of religious or cultural tradition which are an important element of the AUIS Community.

Smoking. Smoking or vaping is only allowed in designated areas. Smoking or vaping outside of designated areas on campus is considered a behavioral violation.

Stalking. Stalking is defined as repeated, unwanted contact between one student and another individual. This may take the form of physical proximity, physically following, phone calls, or contact in social media (e.g. Instagram, TikTok, Facebook, etc.). Stalking is not tolerated.

Threats. A threat is an expression of a desire to harm another person. Threats are not tolerated.

Weapons. Possession or use of firearms, knives, explosives, other weapons, incendiary devices, firecrackers, or dangerous chemicals is not allowed on university premises.

Off Campus Student Conduct

AUIS students are reminded that they represent their university at all times and must behave appropriately and respectfully as a public person and as a private person. Social media such as Facebook are considered to be public. The following may be considered Behavioral Violations, even if they occur off campus:

To defame without evidence other members of the AUIS community in a public forum
To make statements that may lead to violence in a public forum
To harass or threaten others in a public forum
Attacking others based on ethnicity, religion, sect, gender

Disciplinary Guidelines for Behavior Violations

Serious violations of the code of conduct above are considered to be behavioral violations.

Behavior Committees

In the case of possible behavioral violation involving an Undergraduate student, the Dean of Students, Director of Academic Success, the Student Services Department, and the Registration and Records Office constitute the Undergraduate Behavior Committee. The Undergraduate Behavior Committee will investigate possible behavior violations, determine if a behavioral violation has occurred, and apply the appropriate penalty.

In the case of a student enrolled in APP, the Director of APP, the Dean of Students, the Student Services Department, and the Registration and Records Office constitute the APP Behavior Committee. The APP Behavior Committee will investigate possible behavior violations, determine if a behavioral violation has occurred, and apply the appropriate penalty.

The University Liaison will contribute to the investigation of possible behavioral violations if necessary.

Investigation of Possible Behavioral Violations

The Behavior Committee is responsible for the investigation of possible Behavior Violations and the application of the appropriate penalty, if necessary. Investigations of possible behavioral offenses will include physical evidence (e.g. video recordings, screen captures, written documents) as well as eye-witness accounts. Students have the right to produce their own account of the events for inclusion in their permanent files. All steps in a student disciplinary investigation and appeal will be confidential and respectful of all involved.

Consequences of Behavioral Violations

University students are considered adults and will be held accountable for their actions. The consequences for a student found guilty of a behavior violation include the following:

A student found guilty of a behavioral violation will have a written report placed in the student's permanent record. The student's advisor will also be informed. For property theft, damage, or vandalism, the student may be required to provide restitution.

In addition, a student found guilty of a behavioral violation for the first time may be suspended from classes. Classes missed due to a suspension will be recorded as absences. Dormitory residents whose suspensions last longer than seven days are required to leave the dormitory for the duration of the suspension. Exceptions due to extraordinary circumstances may be made at the discretion of AUIS Housing Staff.

A student found guilty of a second behavioral violation may be suspended from classes, dismissed from the university, or dismissed from the university without the possibility of readmission (expulsion), depending on the severity of the offense and other factors.

Immediate Dismissal: Serious transgressions such as violence against others, stealing, willful

damage to school property, overt threats, or similar matters may result in immediate dismissal or immediate dismissal without the possibility of reapplying (expulsion).

Appeals

For behavioral violations that result in no suspension or a suspension of no greater than one week, the Behavior Committee's decision is final and may not be appealed. For behavioral violations that result in a suspension of greater than one week, or dismissal, students may make an appeal to the Vice President for Academic Advancement. The VPAA will review the case and has the option of reversing the decision of the Behavior Committee.

Notes

The University Liaison will contribute to the investigation of possible behavioral violations if necessary.

Deception during the investigation of a possible behavioral violation may result in the student receiving a behavioral violation (in addition to the original incident). Failure to respond to an invitation to meet with the Dean of Students may result in the student receiving a behavioral violation.

Behavioral violations which occur during a student's time in APP will remain in the student's file and be considered during the student's undergraduate career.

VI. Other Considerations

Confidentiality

All steps in a student disciplinary investigation and appeal will be confidential and respectful of all involved.

Parental Notification

The university releases student records and other information only upon written consent of the student. This consent must specify the information to be disclosed, state the purpose of the disclosure, and provide the contact information of the person or institution where disclosure is to be made. However, the university may disclose information or academic records without prior consent of the student in the following circumstances:

- To academic officers, advisors, and other faculty members of the university as necessary.
- To the parents of a dependent student.
- In compliance with a judicial order.

Finally, the university may disclose the following routine student directory information without written consent from the student regarding student directory information: student's name, degrees received, major/minor, awards received, and participation in officially recognized organizations and/or sports.

Professors must receive a student's written consent before discussing the student's performance and/or grades with his or her parent(s).

Statement on Harassment

The American University of Iraq, Sulaimani is committed to maintaining a learning environment free of any form of intimidation, abuse, harassment, or physical violence. This applies to

everyone in the university community. Serious or repeated incidents of such behavior will result in dismissal from the university.

Complaints Against Professors

Students are encouraged to resolve problems with a professor by speaking with that professor. If this is not satisfactory or possible, students are encouraged to speak with the professor's Department Chair or with the Dean of Students. The student's confidentiality will be respected throughout this process. Students may not be penalized by professors for addressing their complaints in this way.

AUIS Student Honor Code

(Written (2010) and revised (2014) by AUIS Undergraduate Students)

The motto of the American University of Iraq, Sulaimani is "Learn today, lead tomorrow." The core values of the University are freedom and responsibility, democracy, free expression and inquiry, equal opportunity, individual rights, tolerance, and honorable personal and professional behavior.

In order to create a healthy educational environment and to help us achieve our mission of educating future leaders, students are encouraged to follow the guidelines below. These guidelines are the Honor Code of the University. Any act that violates these guidelines will result in serious consequences, which may include dismissal from the University.

1. Each student's work will be the result of his or her own honest academic efforts.
2. Students will use English during all educational pursuits at AUIS. No other languages should be used during class discussions and examinations.
3. Students will neither give nor receive any assistance from their classmates during examinations, homework, assignments, et cetera (unless permitted by the professor).
4. Students will neither lie nor steal.
5. Students will respect University property and the private property of others.
6. Students will abide by the rules set down in the AUIS Academic Catalogue.
7. Students will respect one another and University staff and faculty members, regardless of their ethnicity, religion or philosophy, gender, age, economic standing, occupation, or political affiliation.

"On my honor, I will follow these guidelines."

UNDERGRADUATE DEPARTMENTS AND CURRICULUM

The AUIS Core Program

The AUIS Core Program is the common curriculum in the Liberal Arts that all AUIS students take. Students take courses in the Core Program during their first few semesters at AUIS, and this provides a foundation of knowledge and reasoning to help students as they proceed with their major studies, their careers, and the rest of their lives.

As a university devoted to liberal education in the American tradition, AUIS cultivates the strengths of the educated mind. Educated minds know more clearly what they think and why they think it. They know how this matches up, or does not, with the opinions of others, profound or popular, old or fresh. Educated minds can say what they mean, so as to be understood, or to inspire. Those minds touch the deeper, more sober and humane sources of enthusiasm in the arts and religion. The Core Program at AUIS nurtures students in these virtues.

Accordingly, The Core Program rejects some things. It is against teaching that conflates remembering with understanding and teachers who compel assent with the authority of a grade. It is against the demand for a comfortable right answer. The Core Program is against academic credentials as ends in themselves.

So, too, The Core Program promotes some things. It is for broad learning and for teaching that crosses the borders between disciplines. No one knows where these borders will shift; the recent past suggests they will change in the near future. Knowing what one is talking about is so complex—mathematicians do it one way, and historians another—that one can only learn the general habit by studying particular cases. The Core Program is for the art of dialogue. Without knowing the language and methods of the disciplines to a critical minimum, one cannot join or even follow the best conversations. The Core Program is for the mental fitness that comes from assimilating, organizing, and displaying complex information—and doing this over and over. The Core Program is for enthusiasm of the soul. Universities keep, make, and teach knowledge, but not everything they do counts as careful, deliberate understanding. The Core Program engages the mind's bolder leaps, celebrates beauty, and cherishes authentic self-expression. The Core Program is for academic adventure. In a land of many pressing practical difficulties, the liberty of liberal education is especially sweet. One course of study, done for its own sake, can inaugurate a life-long habit of learning.

No one perfects the strengths of the educated mind, but no progress toward those strengths is wasted. This progress builds true self-reliance and is the ultimate aim of The Core Program.

The Core Program Mission

The Core Program at the American University of Iraq, Sulaimani aims to cultivate self-reliant educated minds.

The Core Program Goals

Students who are self-reliant have a foundation of knowledge to support their thinking and creativity. AUIS students know

- The epochs of human history, and the human action, thought, spirituality, and creativity that set each apart;
- The fundamentals of scientific knowledge of the physical, living, and social worlds; and,
- Human creation and expression in the arts, sciences, and humanities.

Students who are self-reliant can reason. AUIS students

- Comprehend the difference between opinion and knowledge, description and judgment;
- Understand and analyze arguments, and make sound arguments of their own;
- Join cause to effect in the physical, living, and social worlds;
- Relate the past to the present and to the future;
- Understand things through quantities and the techniques of mathematics; and,
- Understand and employ the scientific method.

Students who are self-reliant possess skills. AUIS students

- Translate their reasoning into speaking and writing;
- Fit their words to audience and circumstance;
- Speak confidently and persuasively in public;
- Do research directly and through the work of others;
- Employ mathematics as a means of solving problems;
- Use the scientific method—from observation, through hypothesis and testing, to conclusion; and,
- Use appropriate techniques and technology to further their intellectual and creative endeavors.

The Core Program, General Education, And Course Eligibility

All core classes are designed to give students skills that are generally applicable across a wide variety of fields and careers; these are general education classes whose value is not restricted to particular programs of study or focused on particular career paths.

To be eligible for core credit, a course has to be general education according to the following practical criteria:

- (1) Enrolment in the course cannot be limited to students in particular programs of study.

- (2) A general education class must fulfil at least one of the Core Program Goals listed above.
- (3) The course is not on the core committee's list of core-ineligible classes. The core committee has an ongoing responsibility to determine whether particular courses are or are not general education courses, based on the course's curriculum. For example, the content of the class may be judged too narrow for general education eligibility, or its focus may be professional rather than liberal-arts. The core committee will maintain a central list of non-general classes, which may include even those for which enrolment is not restricted. Any faculty member who wishes to propose that a class currently considered core-eligible should be added to the list of non-general-education classes, based on its curriculum, should contact the chair of the core committee, who is responsible for maintaining the list of eligible and ineligible classes. Students and faculty who are unsure whether a course is currently eligible for the core should, again, contact the core committee chair and registrar for clarification.
- (4) In Math and Science, all classes at levels up to and including calculus 1 in math, and physics 1, chemistry 1, and biology 1 in science, can count toward the core. Higher-level classes in each sequence are not core-eligible.

Core Program Curriculum

Students registered in or after the Fall 2022 semester 46 credits

First Year Experience Course: (1 credit)

First semester course, regardless of UG placement

English/Writing (9 credits)

ENG 101, ENG 102, 203 required.

IT (3 credits)

Social Sciences/CIV (9 credits)

CIV 101, 203, 204 required.

Math (9 credits total)

3 credits must be in statistics

Sciences (6 credits total)

3 credits in life sciences, 3 credits of physical sciences

General Education Electives (9 credits total) ****

Social Sciences / Humanities General Education (6 credits)

Sciences/Math (3 credits)

**** Note: Approved Majors can substitute 3 credits of SS/Humanities Core electives for 3 credits in various areas.

Students registered in or after the Fall 2020 semester v 45 credits

Semester	Course Code	Course Title	Credit Hours	Prerequisites
1 st semester	CIV 101	The Ancient World – History	3	R 100 and W 100 or direct entry
	CSC 101	Computer Science and IT Applications	3	No Prerequisite
	ENG 101	Argument	3	R 100 and W 100 or direct entry
	MTH 101	College Algebra	3	None
	SCI 101	Life Science	3	No Prerequisite
2 nd semester	MTH 112 or	Mathematical Concepts	3	MTH 101
	MTH 121 Or	Business Math	3	MTH 101
	MTH 133	Pre-calculus	3	MTH 101
	SCI 102	Physical Science	3	MTH 101
	ENG 102	Critical Reading and Writing	3	ENG 101
	Core Option	Core Option (Humanities, Social Science, or Math and Science)	3	See current course offerings
3 rd semester	CIV 203	Civilization III: The Ancient World (Humanities)	3	30 earned credits
	ENG 203	Research	3	ENG 102
	STT 201	Statistics	3	MTH 101
	Core Option	Core Option (Humanities, Social Science, or Math and Science)	3	See current course offerings
4 th semester	CIV 204	Civilization IV: The Modern World (Humanities)	3	CIV 203
	Core Option	Core Option (Humanities, Social Science, or Math and Science)	3	See current course offerings

The Department of Business Administration

Vision

Our vision is to develop future business leaders for the area, region and globe. To accomplish this we aim to transform students into dreamers, doers and leaders capable of propelling this region into the forefront of the business world.

Mission

To equip students with the tools necessary to excel in private sector enterprises by effectively conveying the core discipline-specific knowledge of economics, accounting, finance, management, and marketing, augmented with applicable knowledge of ethics, law, and information systems, coupled with developing critical and strategic thinking, analysis, synthesis and problem-solving abilities.

Goals

- Create an atmosphere where students are encouraged to dream about their possibilities and to reach for their dreams
- Transform our students into the next generation of business leaders for the area, region and globe
- Utilize best practices of American-style business education
- Engage in outreach programs with regional business and education communities to promote collaboration
- Serve as a model and resource for business programs and a resource for businesses in the region

Learning Outcomes (LO)

We aim for our graduates to achieve the following learning outcomes:

1. **Breadth of knowledge across business.** Students will be able to apply the basic principles of entrepreneurship, financial management, organizational management, economics, marketing and accounting in the context of the national, regional and global economies.
2. **Critical thinking, analytical and problem-solving skills.** Students will evaluate business situations and analyze managerial decisions, using financial statements, statistical tools, and other appropriate methods to organize, analyze and present data.
3. **Interpersonal, communication, teamwork and leadership skills.** Students will demonstrate competency in interpersonal, communication (oral and written), teamwork, and leadership skills through participation in individual and group projects involving company and industry analyses.
4. **Understanding of ethical and social responsibility.** Students will apply concepts and theories of business law, ethics and social responsibility to business situations, taking into consideration the implications of management decisions impacting the interests of key internal and external stakeholders.
5. **Information and technology skills.** Students will employ the latest concepts in information technology to research, facilitate, analyze, communicate and present on all aspects of business operations.

6. **Depth of knowledge.** Students will demonstrate appropriate knowledge of a specific business discipline, applying concepts, theories and models appropriate to their field of study.

Bachelor of Science in Business Administration

The Bachelor of Science (BS) degree in Business Administration is designed to equip students with the tools necessary to excel in private sector enterprises. The specific knowledge covered in this major includes accounting, finance, and economics. These areas are augmented with courses in management, law and ethics, quantitative analysis and information technology. Throughout the curriculum, an emphasis is placed on critical thinking and problem solving that enables students to add value in a variety of commercial settings. This comprehensive blend of skills prepares students for a variety of careers in commerce.

Curriculum: Business Major

Suggested Semester	Course Code	Course Title	Credit Hours	Prerequisites
2 nd semester	BUS 202	Introduction to Business Note: This course is a part of the core credits for students who began in Fall 2022 or After.	3 (count for the core)	15 credits
3 rd semester	ACC 221	Financial Accounting	3	MTH 101
	ECO 220	Principles of Microeconomics	3	M,TH 101
4 th semester	ECO 221	Principles of Macroeconomics	3	ECO 220 or ECO 210
	ACC 222	Managerial Accounting	3	ACC 221
	MGT 201	Principles of Management	3	21 credits
5 th semester	BUS 303	Quantitative Business Analysis	3	ECO 220 and STT 201
	FIN 301	Principles of Finance	3	ACC 222 and MTH 121
	MKT 301	Principles of Marketing	3	30 credits
6 th semester	LGS 225	Introduction to the Commercial Laws of Iraq and Iraqi Kurdistan for Business	3	45 credits
	MIS 301	Management Information Systems	3	45 credits
	MGT 405	Production Operations Management	3	BUS 303 and ACC 222
7 th semester	BUS 401	Business Ethics	3	LGS 225
	MGT 402	Entrepreneurship	3	75 credits
8 th semester	MGT 404	Strategic Management	3	90 credits, Business Major or Minor

	BUS 410	Business Internship Note: This course is required only for students who began in Fall 2022 or after.	3	90 credits, Business Major or Minor
	TOTAL		45 credits	

Concentration in Business Management

This concentration is for business students who wish to study management in more depth. Project management, human resources management, supply chain management, and organizational behavior are all topics that students may explore in detail if they elect to concentrate in business management.

To complete the concentration, students must take four of the six classes listed below. They are then required to take the Management Concentration Capstone course.

Take four of the following:

Course Code	Course Title	Credit Hours	Prerequisites
MGT 301	Organizational Behavior	3	MGT 201
MGT 302	Human Resource Management	3	MGT 201
MGT 360	International Management	3	MGT 201
MGT 380	Project Management	3	75 credits, business major/ minor/ concentration
MGT 403	Operations and Supply Chain Management	3	75 credits, business major/ minor/ concentration
MGT 407	Leadership	3	75 credits, business major/ minor/ concentration

Required course:

MGT 490	Management Concentration Capstone	3	75 credits, Management Concentration
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Concentration in Accounting

Course Code	Course Title	Credit Hours	Prerequisites
ACC 321	Intermediate Accounting I	3	ACC 222
ACC 322	Intermediate Accounting II	3	ACC 321
ACC 325	Cost Accounting	3	ACC 222
ACC 401	Advanced Accounting	3	ACC 322
ACC 405	Auditing	3	ACC 322, ACC 325
TOTAL		15 Credits	

Concentration in Finance

Course Code	Course Title	Credit Hours	Prerequisites
FIN 310	Financial Analysis and Forecasting	3	FIN 301
FIN 320	Money and Banking	3	FIN 301 or ECO 221
FIN 330	Investments	3	FIN 301
FIN 401	International Finance	3	FIN 310
FIN 410	Case Studies in Corporate Finance	3	FIN 320 and FIN 330
TOTAL		15 Credits	

Concentration in Marketing

Take five of the following:

Course Code	Course Title	Credit Hours	Prerequisites
MKT 350*	Consumer Behavior	3	MKT 301
MKT 360*	Marketing Research	3	MKT 301
MKT 410	Integrated Marketing Communications	3	MKT 301
MKT 430	Product and Brand Management	3	MKT 301
MKT 460	Sales Force Management	3	MKT 301
MKT 470*	Marketing Strategy	3	MKT 350 and MKT 360
MKT 499	Special Topics in Marketing	3	MKT 301

*Required courses

Concentration in Economics

Take five of the following:

Course Code	Course Title	Credit Hours	Prerequisites
ECO 320*	Intermediate Microeconomics	3	ECO 220
ECO 321*	Intermediate Macroeconomics	3	ECO 221
ECO 401	Economic Development	3	ECO 221 or ECO 210
ECO 403	International Political Economy	3	ECO 221 or ECO 210
ECO 404	Public Choice	3	ECO 221 or ECO 210
ECO 406	Industrial Organization	3	ECO 220
ECO 499	Special Topic in Economics	3	ECO 221

*Required courses

Minor in Business Administration

Students in other majors who are interested in getting a general overview of business topics and analytical tools are encouraged to take the Minor in Business Administration.

Course Code	Course Title	Credit Hours	Prerequisites
ACC 221	Principles of Financial Accounting	3	MTH 101
MGT 201	Principles of Management	3	21 credits
BUS 303	Quantitative Business Analysis	3	ECO 220 and STT 201
ECO 220	Principles of Microeconomics	3	MTH 101
-	Business Elective	3	-
TOTAL		15 Credits	

Minor in Economics

Students who are interested in the topics and techniques of economics are encouraged to take the Minor in Economics.

Take five of the following:

Course Code	Course Title	Credit Hours	Prerequisites
ECO 220	Principles of Microeconomics	3	MTH 101
ECO 221	Principles of Macroeconomics	3	ECO 220 or ECO 210
ECO 320	Intermediate Microeconomics	3	ECO 220
ECO 321	Intermediate Macroeconomics	3	ECO 221
ECO 401	Economic Development	3	ECO 221 or ECO 210
ECO 403	International Political Economy	3	ECO 221 or ECO 210
ECO 404	Public Choice	3	ECO 221 or ECO 210
ECO 406	Industrial Organization	3	ECO 220
ECO 499	Special Topics in Economics	3	ECO 221
TOTAL		15 Credits	

Minor in Business Management

Students in other majors who would like to study the techniques and ideas of business management are encouraged to take the Minor in Business Management.

To complete the minor, students should take five out of the eight courses listed below:

Course Code	Course Title	Credit Hours	Prerequisites
MGT 201	Principles of Management	3	21 credits
MGT 301	Organizational Behavior	3	MGT 201
MGT 302	Human Resource Management	3	MGT 201
MGT 360	International Management	3	MGT 201
MGT 380	Project Management	3	75 credits, business major/ minor/ concentration
MGT 402	Entrepreneurship	3	75 credits
MGT 407	Leadership	3	75 credits, business major/ minor/ concentration
ENT 302	Creativity and Innovation	3	60 credits completed
LGS 225	Introduction to the Commercial Lawsof Iraq and Iraqi Kurdistan for Business	3	45 credits

Bachelor of Science in Human Resource Management (HRM)

The Bachelor of Science (BS) degree in Human Resource Management (HRM) is designed to equip students with the necessary knowledge and tools to manage human capital effectively in businesses and organizations. This four-year undergraduate degree program provides students with a comprehensive coursework and experiential education in HRM. The HRM curriculum blends contemporary knowledge with advanced concepts to deliver a cutting-edge program. Throughout the curriculum, an emphasis is placed on critical thinking and problem solving that will enable students to add value in a variety of organizational settings. This comprehensive blend of skills will produce high-quality experts for an array of careers in business and non-business organizations. HRM major students will also be prepared for admissions to graduate programs in HRM.

Suggested Semester	Course Code	Course Title	Credit Hours	Prerequisites
2 nd semester	BUS 202	Introduction to Business Note: This course is a part of the core credits	3 (count for the core)	15 credits
3 rd semester	ACC 221	Financial Accounting	3	MTH 101
	ECO 220	Principles of Microeconomics	3	MTH 101
	MGT 201	Principles of Management	3	21 credits
4 th semester	ECO 221	Principles of Macroeconomics	3	ECO 220 or ECO 210
	MKT 301	Principles of Marketing	3	30 credits
	MGT 302	Human Resources Management	3	MGT 201
	LGS 225	Introduction to the Commercial Laws of Iraq and Iraqi Kurdistan for Business	3	45 credits
5 th semester	BUS 303	Quantitative Business Analysis	3	ECO 220 and STT 201
	MGT 301	Organizational Behavior	3	MGT 301
	MIS 301	Management Information Systems	3	45 credits
6 th semester	MGT 331	Selection and Recruitment	3	MGT 201
	MGT 332	Training and Development	3	MGT 201
	MGT 333	Compensation and Benefits	3	MGT 201
7 th semester	BUS 401	Business Ethics	3	LGS 225
	HRM 431	Organizational Development and Change	3	MGT 302
	HRM 432	Employee Relations	3	MGT 302
	HRM 433	Performance Management	3	MGT 302
8 th semester	HRM 441	International Management	3	MGT 302 and 90 credits
	HRM 442	Strategic Human Resources Management	3	MGT 302 and 90 credits
	HRM 410	Human Resources Management Internship	3	MGT 302 and 90 credits
	TOTAL		60 credits	

Bachelor of Science in Digital Marketing and Social Media (DMSM)

The Bachelor of Science (BS) in Digital Marketing and Social Media (DMSM) provides a specialist degree in the field that is experiencing the strongest growth in the area of marketing. The program provides students with comprehensive coursework and experiential education in digital marketing and social media, and will prepare students for careers in business and non-business organizations that increasingly use digital channels such as social media, e-commerce portals, and mobile apps in their operations.

The academically rigorous DMSM curriculum, following current leading-edge U.S. curricula, integrates theory and practice, and combines fields such as business, communications, and technology with marketing. It aims to develop exemplary digital marketing and social media experts in the region. The theoretical and methodological foundations will prepare students to advance in their careers as well as prepare them for access to advanced degrees in marketing or related fields.

Curriculum: Digital Marketing and Social Media

Suggested Semester	Course Code	Course Title	Credit Hours	Prerequisites
2 nd semester	BUS 202	Introduction to Business Note: This course is a part of the core credits	3 (count for the core)	15 credits
	ECO 210	Introduction to Economics	3	15 credits
3 rd semester	MKT 301	Principles of Marketing	3	30 credits
4 th semester	MKT 302	Digital Imaging, Website Planning and Creation	3	30 credits
	MKT 303	Fundamentals of Digital and Social Media Strategy	3	30 credits
	LGS 225	Introduction to the Commercial Laws of Iraq and Iraqi Kurdistan for Business	3	45 credits
	MKT 304	Marketing Information System	3	45 credits
5 th semester	MKT 310	Social Media Tools I	3	45 credits
	MKT 350	Consumer Behavior	3	MKT 301
	MKT 360	Marketing Research	3	MKT 301
	MKT 305	The Art of the Creative Brief	3	45 credits
6 th semester	MKT 306	Mass Communications in the Digital Age	3	60 credits
	MKT 315	Copywriting	3	MKT 301
	MKT 311	Social Media Tools II	3	60 credits

7 th semester	MKT 430	Online Reputation and Brand Management in the Digital Age	3	MKT 301
	BUS 401	Business Ethics	3	LGS 225
	MKT 460	Advertising and Sales Force Management	3	MKT 301
	MKT 410	Integrated Marketing Communications	3	MKT 301
8 th semester	MKT 440	International Marketing	3	90 credits, Business major or minor
	MKT 420	Digital Marketing Strategy and Metrics	3	MKT 303, 90 credits
	MKT 470	Marketing Strategy	3	MKT 350, MKT 360
	TOTAL		60 credits	

The Department of Engineering

The Engineering Department provides students with a strong analytical basis in engineering science, reinforced with engineering fundamental courses, and connected to a hands-on practical experience.

Program Educational Objectives

- PEO 1: Become highly ethical and technically competent engineers for a successful, and productive career in the engineering profession.
- PEO 2: Engaged in professional development activities, pursuing graduate studies and research and new career opportunities.
- PEO 3: Demonstrate effective communication and teamwork skills and adaptability to a diverse environment with an aptitude for solving engineering problems.

Student Outcomes

- Ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics
- Ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors
- Ability to communicate effectively with a range of audiences
- Ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts
- Ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives
- Ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions
- Ability to acquire and apply new knowledge as needed, using appropriate learning strategies

Core Requirements for Engineering Majors

Because of the extended amount of courses required for the engineering degree, engineering majors have an adjusted set of Core Program requirements.

Curriculum: Core Program for All Engineering Majors

Math and Natural Sciences Core

Suggested Semester	Course Code & Title	Prerequisites	Credits
1st	MTH 232 (Calculus I)	No Prerequisites	3
	CHEM 232 + CHEML 232 (Chemistry I + Chemistry Lab I)	No Prerequisites	4
2nd	PHYS 232+PHYSL232 (Calculus-Based	MTH 232	4

	Physics I + Calculus-Based Physics Lab I)		
	MTH 233 (Calculus II)	MTH 232	3
3 rd	MTH 331 (Calculus III)	MTH 233	3
	MTH 340 (Linear Algebra)	MTH 233	3
4 th	MTH 332 (Differential Equations)	MTH 233	3
	PHYS 233+PHYSL233 (Calculus-Based Physics II + Calculus-Based Physics Lab II)	PHYS 232+PHYSL232	4
6 th	STT 342 (Engineering Statistics)	ENGR 244	3
	TOTAL /		30 Credits

General Education Including English and Humanities Core

Suggested Semester	Course Code & Title	Prerequisites	Credits
1 st	CIV 101 (Civilization 1- Ancient World)	No Prerequisites	3
	ENG 101 (Argument)	No Prerequisites	3
Based on Students' Progress	ENG 102 (Critical Reading)	ENG 101	3
	Core Elective: Humanities, Social Science	See Course Description	3
	CIV 203 (Ancient World: Humanities)	See Course Description	3
	ENG 203 (Research & Project-Writing)	ENG 102	3
	TOTAL /		18 Credits

Bachelor of Science in Civil Engineering

Suggested Semester	Course Code & Title	Prerequisites	Credits
1 st	ENGR 230 (Engineering Drawing)	No Prerequisites	(2-2-3)
	CIV 101 (Civilization 1- Ancient World)	No Prerequisites	3
	ENG 101 (Argument)	No Prerequisites	3
	MTH 232 (Calculus I)	No Prerequisites	3
	CHEM 232 + CHEML 232 (Chemistry I + Chemistry Lab I)	No Prerequisites	4
2 nd	ENGR 231 (Fabrication Shop (Team-based Problem Solving))	ENGR 230	(1-2-2)
	ENG 102 (Critical Reading)	ENG 101	3
	CIV 203 (Ancient World: Humanities)	30 Credits and above	3
	PHYS 232+PHYSL232 Calculus-Based Physics I +Calculus-Based Physics Lab I)	MTH 232	4
	MTH 233 (Calculus II)	MTH 232	3
3 rd	ENGR 344 (Mechanics I)	PHYS 232+PHYSL232	3
	MTH 331 (Calculus III)	MTH 233	3
	Core Elective: Humanities, Social Science	See Course Description	3

	MTH 340 (Linear Algebra)	MTH 233	3
	ENGR 248 (Engineering Geology)	CHEM 232 + CHEML 232	3
4 th	MTH 332 (Differential Equations)	MTH 233	3
	ENGR 373 (Material of Construction)	CHEM 232 + CHEML 232	4
	PHYS 233+PHYSL233 (Calculus-Based physics II + Calculus-Based Physics Lab II)	PHYS 232+PHYSL232	4
	ENGR 348 (Mechanics II)	ENGR 344, MTH 340	3
	ENGR 358 (Mechanics of Materials)	ENGR 344	3
5 th	ENGR 356 (Fluids)	ENGR 344, MTH 233	4
	ENGR 370 (Surveying)	MTH 233	2
	ENGR 244 (Engineering Computing and Numerical Analysis)	MTH 332, MTH 331	3
	ENG 203 (Research & Project-Writing)	ENG 102	3
	ENGR 475 (Soil Mechanics)	ENGR 248	3
6 th	ENGR 476 (Concrete Design I)	ENGR 475, ENGR 373	3
	ENGR 493 (Highway Engineering and Design)	ENGR 370	3
	ENGR 473 (Structural Analysis)	ENGR 358, ENGR 348	3
	ENGR 490 (Engineering Internship)	Senior Standing (to be taken alone) taken in summer or winter	3
	ENGR 430 (Engineering Hydrology)	ENGR 356	3
	STT 342 (Engineering Statistics)	ENGR 244	3
7 th	ENGR 474 (Steel Design)	ENGR 473	3
	ENGR 486 (Concrete Design II)	ENGR 476	3
	ENGR 444 (Engineering Project Management)	STT 342	3
	ENGR 491 (Design I)	ENG 203, Senior Standing, ENGR 231	3
	ENGR 484 (Engineering Laboratory)	STT 342	3
	ENGR 477 (Foundation Design)	ENGR 476	3
8 th	Engineering Elective	Senior Standing	3
	Engineering Elective	Senior Standing	3
	ENGR 485 (Hydraulic Structures)	ENGR 430	3
	Engineering Elective	Senior Standing (taken in summer or winter)	3
	ENGR 492 (Design II)	ENGR 491, ENGR 484, ENGR 444	2
	TOTAL /		128 Credits

- Engineering electives are 300+ engineering courses.
 - Students can interchange/swap PHYS 232 and CHEM 232.

Bachelor of Science in Construction Engineering (discontinued)
 Please refer back to the previous 21-22 academic year catalog

Bachelor of Science in Energy Engineering

Suggested Semester	Course Code & Title	Prerequisites	Credits
1st	ENGR 230 (Engineering Drawing)	No Prerequisites	(2-2-3)
	CIV 101 (Civilization 1- Ancient World)	No Prerequisites	3
	MTH 232 (Calculus I)	No Prerequisites	3
	ENG 101 (Argument)	No Prerequisites	3
	CHEM 232 + CHEML 232 (Chemistry I + Chemistry Lab I)	No Prerequisites	4
2nd	ENGR 231 (Fabrication Shop (Team-based Problem Solving))	ENGR 230	(1-2-2)
	ENG 102 (Critical Reading)	ENG 101	3
	PHYS 232+PHYSL232 (Calculus-Based Physics I + Calculus-Based Physics Lab I)	MTH 232	4
	Core Elective: Humanities, Social Science	See Course Description	3
	CIV 203 (Ancient World: Humanities)	30 Credits and above	3
3rd	ENGR 344 (Mechanics I)	PHYS 232+PHYSL232	3
	MTH 233 (Calculus II)	MTH 232	3
	ENGR 354 (Materials Science)	CHEM 232 + CHEML 232	3
	PHYS 233+PHYSL233 (Calculus-Based Physics II + Calculus-Based Physics Lab II)	PHYS 232+PHYSL232	4
	ENGR 352 (Thermodynamics)	PHYS 232+PHYSL232	3
4th	MTH 332 (Differential Equations)	MTH 233	3
	MTH 331 (Calculus III)	MTH 233	3
	MTH 340 (Linear Algebra)	MTH 233	3
	ENGR 390 (Circuits)	PHYS 233+PHYSL233	4
	ENGR 358 (Mechanics of Materials)	ENGR 344	3
5th	ENGR 356 (Fluids)	ENGR 344, MTH 233	4
	ENGR 366 (Applied Electronics)	ENGR 390	3
	ENG 203 (Research & Project-Writing)	ENG 102	3
	ENGR 244 (Engineering Computing and Numerical Analysis)	MTH 332, MTH 331	3
	ENGR 348 (Mechanics II)	ENGR 344, MTH 340	3
6th	ENGR 420 (Turbomachinery)	ENGR 356, ENGR 352	3
	ENGR 313 (Measurement Laboratory)	ENGR 356, ENGR 390	(1-2-2)
	ENGR 425 (Energy Storage System)	ENGR 354	3
	ENGR 455 (Introduction to Petroleum Engineering)	ENGR 356	3
	STT 342 (Engineering Statistics)	ENGR 244	3
	ENGR 490 (Engineering Internship)	Senior Standing (to be taken alone) taken in summer or winter	3
7th	ENGR 452 (Transport Phenomena)	ENGR 356, MTH 332	3
	ENGR 454 (Process Engineering)	ENGR 455	3
	ENGR 444 (Engineering Project management)	STT 342	3

	ENGR 461 (System Dynamics and Control)	ENGR 348	3
	ENGR 491 (Design I)	ENG 203, ENGR 358, ENGR 231, Senior Standing	3
8 th	Engineering Elective	Senior Standing, (taken in summer or winter)	3
	ENGR 457 (Renewable Energy)	ENGR 461	3
	Engineering Elective	Senior Standing	3
	ENGR 492 (Design II)	ENGR 491, ENGR 366, ENGR 444	2
	Engineering Elective	Senior Standing	3
	ENGR 484 (Engineering Laboratory)	STT 342, ENGR 313	3
	TOTAL /		128 Credits

- Engineering electives are 300+ engineering courses.
- Students can interchange/swap PHYS 232 and CHEM 232.

Bachelor of Science in Mechanical Engineering

Suggested Semester	Course Code & Title	Prerequisites	Credits
1 st	ENGR 230 (Engineering Drawing)	No Prerequisites	(2-2-3)
	CIV 101 (Civilization 1- Ancient World)	No Prerequisites	3
	MTH 232 (Calculus I)	No Prerequisites	3
	ENG 101 (Argument)	No Prerequisites	3
	CHEM 232 + CHEML 232 (Chemistry I + Chemistry Lab I)	No Prerequisites	4
2 nd	ENGR 231 (Fabrication Shop (Team-based Problem Solving))	ENGR 230	(1-2-2)
	ENG 102 (Critical Reading)	ENG 101	3
	PHYS 232+PHYSL232 (Calculus-Based Physics I + Calculus-Based Physics Lab I)	MTH 232	4
	Core Elective: Humanities, Social Science	See Course Description	3
	CIV 203 (Ancient World: Humanities)	30 Credits and above	3
3 rd	ENGR 344 (Mechanics I)	PHYS 232+PHYSL232	3
	MTH 233 (Calculus II)	MTH 232	3
	ENGR 354 (Materials Science)	CHEM 232 + CHEML 232	3
	PHYS 233+PHYSL233 (Calculus-Based Physics II + Calculus-Based Physics Lab II)	PHYS 232+PHYSL232	4
	ENGR 352 (Thermodynamics)	PHYS 232+PHYSL232	3
4 th	MTH 332 (Differential Equations)	MTH 233	3
	MTH 331 (Calculus III)	MTH 233	3
	ENGR 390 (Circuits)	PHYS 233+PHYSL233	4
	MTH 340 (Linear Algebra)	MTH 233	3
	ENGR 358 (Mechanics of Materials)	ENGR 344	3
5 th	ENGR 356 (Fluids)	ENGR 344, MTH 233	4
	ENG 203 (Research & Project-Writing)	ENG 102	3
	ENGR 432 (Component Design)	ENGR 358	3

	ENGR 244 (Engineering Computing and Numerical Analysis)	MTH 332, MTH 331	3
	ENGR 348 (Mechanics II)	ENGR 344, MTH 340	3
6 th	ENGR 413 (Manufacturing Processes)	ENGR 231, ENGR 354	3
	ENGR 313 (Measurements Laboratory)	ENGR 390, ENGR 356	(1-2-2)
	ENGR 453 (Application of Thermodynamics)	ENGR 352	3
	ENGR 433 (Machine Design)	ENGR 432	3
	STT 342 (Engineering Statistics)	ENGR 244	3
		ENGR 452 (Transport Phenomena)	ENGR 356, MTH 332
7 th	ENGR 461 (System Dynamics and Control)	ENGR 348	3
	ENGR 490 (Engineering Internship)	Senior Standing (to be taken alone) taken in summer or winter	3
	ENGR 444 (Engineering Project Management)	STT 342	3
	ENGR 491 (Design I)	ENG 203, Senior Standing	3
	Engineering Elective	Senior Standing	3
		Engineering Elective	Senior Standing (taken in summer or winter)
8 th	ENGR 480 (Engineering Vibration)	ENGR 348	3
	ENGR 483 (Introduction to Robotics)	ENGR 461	3
	ENGR 492 (Design II)	ENGR 413, ENGR 491, ENGR 444	2
	Engineering Elective	Senior Standing	3
	ENGR 484 (Engineering Laboratory)	STT 342, ENGR 313	3
		TOTAL /	

- Engineering electives are 300+ engineering courses.

The Department of English and Translation

The AUIS English Department offers students the opportunity to explore – and participate in the rich tradition of the written word in English. All students learn to approach texts and ideas critically, to consider them thoughtfully, and to write about them clearly. The enhanced fluency in English majors and minors gain will prepare them to compete in the domestic and international job markets for careers in teaching, journalism, government, marketing, communications, publishing, and business as well as for graduate study.

Learning outcomes

English Major

Students who successfully complete the English Major will be able to:

- Write cogent essays with a clear awareness of audience, constructing arguments with appropriate and thoughtfully analyzed evidence.
- Read text critically, engaging with it based on its own context and conventions, and uncovering its assumptions, excluded voices, or subtext.
- Communicate creatively through critical prose, original fiction, poetry, or non-fiction.
- Develop the ability to research using primary and secondary sources, producing scholarly work.
- Practice processes pertaining to invention, revision and organization through multiple drafts, editing, and adjusting for academic purposes.
- Demonstrate general familiarity with both English and world literature, developing broad knowledge of the history and variety of literature in the English language.
- Apply interpretative strategies to literary texts to enrich their understanding of reality, employing these strategies to analyze non-literary narratives and discourses.

English Journalism Major

Upon successful completion of the English-Journalism Major, students will be able to:

- Explore the world with a critical mind, suspending subjective biases and seeking the highest standard of truth; understand the fundamental distinction between facts and opinions.

- Discover newsworthy stories of people, places, events, and issues that have relevance within and beyond the borders of Iraqi society; understand the central role that journalism plays in informing local and global culture, politics, and business.
- Respect every subject equally, regardless of race, religion, or status, and cultivate an experience-based understanding of the ethical responsibility of journalists with regard to their subjects and their audiences.
- Ask thoughtful leading questions that generate new information and add complexity and human perspective to stories.
- Challenge stereotypes and simplistic assumptions about people, places, and issues; use journalistic techniques as tools to disassemble prejudices, flawed logic, and misinformation; promote, raise awareness and defend the “public good.”
- Report well-organized and carefully written and visual stories that present multiple dimensions of stories, and makes a complex set of information, from interviews to primary source documents, accessible to a general audience.

Bachelor of Arts in English Journalism

Students who choose the English-Journalism major will acquire dexterity in traditional and emerging media. All good writers begin as good readers: student-journalists will steep themselves in literature so that they may begin to intuitively understand the standards to which they aspire. Our program emphasizes individual field-work as a primary vehicle, allowing students to cultivate their own interests as they learn all the necessary skills. The English-Journalism Major balances theory with practice.

Required Courses: 30 credits

Category	Code	Title	Credits	Pre-Reqs
Reporting(x2)	JRL 301 + JRL 302	Reporting AND Advanced Reporting	3 each	ENG 102, JRL 301
Language Knowledge	ENG 303	Origins and Structures of English Language	3	ENG 102
Specialized Journalism	JRL 499	Journalism Special Topics	3	JRL 301
Journalism Internship	JRL 398 or JRL 455	On-Campus Journalism Internship OR Off-Campus Journalism Internship	3	JRL 301
Creative Writing	JRL 303 or ENG 350	Creative Non-Fiction OR Creative Writing	3	ENG 102, ENG 101
Research Awareness	POL 310	Research Methods in Social Science	3	30 credits

Literary Foundations	LIT 300 or LIT 310	Traditions and Themes OR Theory and Methods	3	ENG 102
Literature Surveys (1 of 3)	LIT 301 LIT 302, or LIT 304	British Literature, American Literature, and World Literature	3	ENG 102
Thesis	ETW 400	English Thesis Workshop	3	Instructor permission

Multi-discipline Electives: 21 credits

Category	Code	Title	Credits	Pre-Reqs
Literature and Writing Electives (x2)	LIT, ENG, LNG, or TRN (300- or 400-level)	Elective (see course offerings)	3 each	See course description
Social Science Electives (x2)	POL, LGS, HST, REL, or ECO (2, 3,400 level). OR HUM 202 OR HUM 203	Elective (see course offerings), Social Science courses OR Gender, Media, and Society, OR, Introduction to Media	3 each	See course description
Journalism Electives (x2)	JRL (300- or 400- level)	Elective (see course offerings)	3 each	See course description
Open Department Elective	Any level ART, HUM, LIT, JRL, LNG, TRN, or ENG	Electives (see course offerings)	3	See Course Description

Total: 51 credits

Bachelor of Arts in Translation

The BA in Translation equips students with the practical skills and theoretical background to work at a professional level in translation either within Iraq or internationally. Students practice English language proficiency to a high level, gain skills in practical translation and interpreting technique in situations as closely matched to professional conditions as possible, and cover a wide variety of linguistic sources, cultural contexts, and registers of language. The degree allows students to specialize in particular fields of translation by making their own selections of upper-level elective classes.

Mandatory classes: 24 credits

Category	Code	Title	Credits	Pre-Reqs
English Language	ENG 303	Origins and Structures of English Language	3	ENG 102
Linguistics	LNG 305	Concepts, Principles, and Current Debates in Linguistics	3	ENG 102
Translation Theory	TRN 300	Theories of Translation	3	ENG 102
Translation Technique	TRN 310	Beginning Consecutive Translation Technique	3	ENG 102
Translation Technique	TRN 311	Advanced Consecutive Translation Technique	3	TRN 310
Interpreting Technique	TRN 330	Consecutive Interpreting Technique	3	TRN 311
Project	TRN 499	Practical Translation Project	3	TRN 330
Thesis	ETW 400	English Thesis Workshop	3	At least 2 400-level TRN, plus Instructor permission

Constrained Options: 27 credits

Category	Code	Title	Credits	Pre-Reqs
Array of Literary English (2 of 3)	LIT 301 LIT 302 LIT 404	British Literature, American Literature, Shakespeare	3 each	See Course Description
Genres of Translation(2 of 4)	TRN 400 TRN 410 TRN 420 TRN 430	Literary Translation, Medical Translation, Legal Translation, Simultaneous Interpreting	3 each	See course description
Open Language, Linguistics, and Translation Options (x2)	LNG or TRN courses (2/3/400-level)	Electives (see course offerings)	3 each	See Course Description

Advanced Language-Use and Writing Options (x2)	LIT, ENG, or JRL courses (300 or 400 level)	Electives (see course offerings)	3 each	See Course Description
Open Department Elective	Any level ART, HUM, LIT, JRL, LNG, TRN, or ENG	Electives (see course offerings)	3	See Course Description

Total: 51 credits

Bachelor of Arts in English

The Bachelor of Arts in English provides students with an opportunity to read and think deeply about a range of literature written in the English language, not just as critics and theoreticians, but also as educators. Not only will students explore and enjoy various texts, they will develop powerful analytical and theoretical tools that can help prepare them for a variety of careers. Moving out from a foundation in the discipline, students will begin to understand English literature and language through electives, guided in their choices by a designated faculty adviser. The program offers an array of elective courses in creative writing, translation, journalism, and drama, as well as literature. Finally, students will write a senior thesis, which may take the form of an investigation of a critical topic or a creative writing project. All these are approved and directed by a member of the English faculty. English Majors can become publishers, copywriters, critics, editors, authors, and teachers.

Required Courses: 18 credits

Category	Code	Title	Credits	Pre-Reqs
Literary Foundations (x2)	LIT 300 + LIT 310	Traditions and Themes + Theory and Methods	3 each	ENG 102
Literature Surveys (2 of 3)	LIT 301 LIT 302 LIT 304	British Literature, American Literature, and World Literature	3 each	ENG 102
Language Knowledge	ENG 303	Origins and Structures of English Language	3	ENG 102
Thesis	ETW 400	English Thesis Workshop	3	Instructor permission

Constrained Options: 24 credits

Category	Code	Title	Credits	Pre-Reqs
Interdisciplinary One	PDG 300 or POL 310 or HST 301	Pedagogy, Research Methods inSS, OR Research Methods inHistory	3	See course description
Interdisciplinary Two	PDG 300 or POL 303 or Any PHI	Pedagogy, Political Philosophy,OR any philosophy	3	See course description
Literature (x2)	LIT (300- or 400-level)	Elective (see course offerings)	3 each	See course description
Language and Writing (x2)	LNG, TRN, JRL, or ENG(300- or 400-level)	Elective (see course offerings)	3 each	See course description
Upper-level Literature (x2)	400-levelLIT	Electives (see course offerings)	3 each	See course description

Departmental Free Reign: 9 credits

Category	Code	Title	Credits	Pre-Reqs
Department Electives (x2)	LIT, TRN, LNG, JRL, or ENG (300- or 400-level)	Electives (see course offerings)	3 each	See Course Description
Open Department Elective	Any level ART, HUM, LIT, JRL, LNG, TRN, or ENG	Electives (see course offerings)	3	See Course Description

Total: 51 credits
Minor in English Journalism

The English-Journalism Minor provides a condensed version of the major: a foundation in English literature and language, essential coursework in written journalism, and a choice of courses in visual or new-media journalism.

Code	Title	Credits	Pre-Reqs
JRL 301	Reporting	3	ENG 203
ENG 303, LIT 300 or LIT 310	Literary Foundations: Traditions and Themes OR Literary Foundations: Theory and Methods OR Origins and Structures of the English Language	3	ENG 102
JRL 302, JRL 304, or ENG 350	Advanced Reporting OR Creative Nonfiction OR Creative Writing	3	see course description
JRL Elective (300- or 400-level JRL)	Elective: see current course offerings	3	see course description
JRL (elective 400-level)	See current course offerings	3	see course description

Minor in English Literature

The English Minor offers students an opportunity to hone their English language and analytical skills through the study of literature. Coursework combines a foundation in major literary texts and critical approaches with a range of electives in English literature, journalism, and/or creative writing.

Course Code	Course Title	Credit Hours	Prerequisites
LIT 310	Literary Foundations: Theory and Methods	3	ENG 102
LIT 300 or 304	Literary Foundations: Traditions and Themes OR World Literature	3	ENG 102
LIT 301 or LIT 302	British Literature OR American Literature	3	ENG 102
LIT, ENG, TRN, LNG, or JRL (elective 300- or 400-level)	See current course offerings	3	See course description
LIT (elective 400-level)	See current course offerings	3	See course description

Minor in Translation

The Translation Minor equips students with linguistic, literacy, cultural, and technical skills necessary for basic work in translating into and out of English. Students take courses on practical translation skills alongside classes that cultivate linguistic understanding and the ability to read and write complex material on culturally-specific topics.

Category	Code	Title	Credits	Pre-Reqs
Translation Technique	TRN 310	Beginning Consecutive Translation Technique	3	ENG 102
Translation Technique	TRN 311	Advanced Consecutive Translation Technique	3	TRN 310
Linguistic Background	TRN 300 or ENG 303 or any 300- or 400- level LNG	Theories of Translation or Origins and Structures of English Language or (any advanced linguistics class)	3	See Course Description
Advanced Language-Use and Writing Option	Any 300- or 400-level LIT, ENG, or JRL	Elective (see course offerings)	3	See Course Description
Specialized Translation	TRN 300 or TRN 330 or Any 400- level TRN	Theories of Translation or Consecutive Interpreting Technique or (any translation genre/project class)	3	See Course Description

Minor in Gender Studies

The Gender Studies Minor allows students to study issues relating to gender across a variety of fields. Coursework requires students to take courses that approach different fields in which gender is relevant, from both humanistic and social-scientific methodological approaches.

Category	Code	Title	Credits	Pre-Reqs
Introduction to gender (1 of 2)	Either ART 102 or HUM 255	Gender, Media and Society OR Social Justice in Theory and Practice	3	ENG 102
Gender and Cultural Production (1 or 2 eligible humanities classes)	At least one (maximum two) of ART 102, LIT 311 and/or LIT 350	Gender, Media and Society AND/OR Literature of the Oppressed: Race and Gender AND/OR Gendered Representations of Genocide	3 each (up to 6)	See Course Description
Gender in Society (1 or 2 eligible social-science classes)	At least one (maximum two) of SCI 280, REL 422 and/or HST 451	Gender and Health in the Developing World AND/OR Gender and Islam AND/OR Women and Gender in Ancient Greece	3 each (up to 6)	See Course Description
Upper level Theory Requirement	LIT 400	Feminist Criticism and Women's Writing	3	ENG 203 or any 300-level LIT

The Department of Information Technology

Bachelor of Science in Information Technology

The Bachelor of Science degree in Information Technology is a technical degree program that prepares students in the core competencies of the IT discipline, including problem-solving and programming, networking, database systems, internet and web technologies and information security. The IT major is a suitable choice for students interested in future employment in the areas such as software development and application support, network operations, database management, technical liaison and sales and IT services. Students majoring in IT have the flexibility to add a minor in another degree program, such as business administration. Or they may take additional courses in the discipline beyond those required for the major to further broaden their understanding of the discipline.

Kurdistan Regional Government Ministry of Higher Education and Scientific Research requirements for admission into the IT program at AUIS are:

Branch	Required Score
High School- Scientific Branch	60%
Vocational High School- IT or Computer Repair Branch	68%
The "5 Years institutes" –Networking or Web Design or Programming Branch	63%
The "2 years institutes" – IT Branch	58%

IT major graduation requirements are: 48 credits **IT major required courses**, and 12 credits **IT elective courses**. Students can take 15 credits as a minor, concentration, or general elective courses.

Students who successfully complete the IT degree program must demonstrate the following core and advanced learning outcomes, which have been adapted from the Association for Computing Machinery's 2008 Curriculum Guidelines for Undergraduate Degree Programs in Information Technology.

Core Learning Outcomes (Knowledge, Comprehension, Application, Analysis)

- IT Core 1 - Classify a problem and define computing requirements appropriate to its solution. [Knowledge],[Comprehension]
- IT Core 2 - Apply knowledge of current techniques, skills, and tools necessary to support best computing practices within the Information Technology field. [Application]
- IT Core 3 - Define and articulate the ethical, legal, security, and social issues and responsibilities in the context of Information Technology. [Knowledge],[Application]

- IT Core 4 - Identify and recognize user needs in the selection, creation, evaluation and administration of computer-based systems. [Knowledge], [Analysis]

Advanced Learning Outcomes (Synthesis, Evaluation, Affective Domain)

- IT Adv 1 – Appreciate the local and global impact of computing on individuals, organizations, and society. [Affective Domain]
- IT Adv 2 – Recognition and appreciation for the need to engage in continuing professional development. [Analysis],[Affective Domain]
- IT Adv 3 - Collaborate effectively on teams to complete a common goal. [Synthesis]
- IT Adv 4 – Communicate effectively, using verbal and/or written mediums, with a range of audiences. [Synthesis]

Curriculum: IT Major Required Courses

Suggested Semester	Course Code	Course Title	Credit Hours	Prerequisites
3 rd semester	ITE 202	IT Systems	3	CSC 101
4 th semester	ITE 301	Data Communications and Networks	3	ITE 202
	ITE 304	Fundamentals of Web Systems	3	ITE 202
	ITE 306	Computing Platforms	3	ITE 202
5 th semester	ITE 303	Introduction to Programming	3	ITE 202 & MTH 235
	ITE 305	Database Management Systems	3	ITE 202
	ITE 308	IT Project Management	3	ITE 301
6 th or 7 th semester	ITE 401	Advanced Computer Networks	3	ITE 301
	ITE 404	Web Application Programming	3	ITE 303 & ITE 304 & ITE 305
	ITE 406	Professional Ethics and Communications	3	ITE 308
	ITE 408	Interaction Design	3	ITE 304 & ITE 308
6 th or 7 th semester	ITE 403	Information Security	3	ITE 301 & ITE 308
	ITE 407	Advanced Database Management Systems	3	ITE 303 & ITE 305
	ITE 409	Advanced Programming	3	ITE 303
	ITE 411	IT Capstone Project I	3	ITE 306 & ITE 308
8 th semester	ITE 412	IT Capstone Project II	3	Last semester
TOTAL			48 Credits	

Minor in Information Technology

Students in other majors, except for Software Engineering, who are interested in learning fundamentals of Information Technology are encouraged to take the IT minor. Software Engineering major students cannot study IT as a minor.

The table below illustrates the structure of the IT minor. The listed courses are already approved; however, new courses will be added in the future.

Course Code	Course Title	Credit Hours	Prerequisites
Category-1: One 200-level algorithm and problem-solving course			
ITE 202	IT Systems	3	Any core IT course
Category-2: One 300-level Web development course			
ITS 340	Rapid Online Presence	3	ITS 301 or ITE 202
ITE 304	Fundamentals of Web Systems	3	ITE 202
Category-3: One 300-level networks course			
ITS 322	Introduction to Systems Administration	3	ITS 301 or ITE 202
ITE 301	Data Communications and Networks	3	ITE 202
Category-4: Two other (300 or 400-level) IT courses to complete a total of FIVE IT courses. Courses that are not listed above have to have the Department's approval prior to being taken and accepted towards fulfilling the requirements of the IT minor.			

IT elective courses are any courses offered by the Department of IT/SE that are 300-level and above and are not listed as required courses for IT.

Bachelor of Science in Software Engineering

The Bachelor of Science in Software Engineering prepares a generation of students who can develop and solve industrial, governmental, educational, and organizational problems with contemporary programming and designing tools. The AUIS Software Engineering program focuses on engraving engineering principles onto prospective software engineers that can contribute to the public, local and regional sectors in the best possible engineering methods and practices. Not only students are expected to create an impact with the obtained knowledge in the program, but also they discover new findings in their technological, practical and professional endeavor.

Kurdistan Regional Government Ministry of Higher Education and Scientific Research requirements for admission into the Software Engineering program at AUIS are:

Branch	Required Score
High School- Scientific Branch	75%
Vocational High School- IT or Computer Repair Branch	83%
The "5 Years institutes" –Networking or Web Design or Programming Branch	88%
The "2 years institutes" – IT or Communications or Computer Branch	73%

SE major requirements are: 48 credits **SE major required courses**, and 12 credits **SE elective courses**. Students can take 15 credits as a minor, concentration, or general elective courses.

Objectives and Expected Outcomes of Program

The software engineering program prepares graduates for a variety of careers in the information technology domain as well as for graduate study in closely related disciplines.

Within a few years after graduation, graduates are expected to:

- Demonstrate an understanding of engineering principles and an ability to solve unstructured engineering problems through the successful entrance into and advancement in the software engineering profession.
- Demonstrate an appreciation for lifelong learning and for the value of continuing professional development through participation in graduate education, professional education or continuing education opportunities, attainment of professional licensure, or membership in professional societies.
- Demonstrate an understanding of professional and ethical responsibilities to the profession, society and the environment incumbent on an engineering professional.
- Successfully interact with others of different backgrounds, educations, and cultures.
- Demonstrate effective communication skills in their profession.

- The software engineering program enables students to attain, by the time of graduation:
 - an ability to design and conduct experiments, as well as to analyze and interpret data
 - an ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability
 - an ability to function on multidisciplinary teams
 - an ability to identify, formulate, and solve engineering problems
 - an understanding of professional and ethical responsibility
 - an ability to communicate effectively the broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context
 - a recognition of the need for, and an ability to engage in lifelong learning
 - a knowledge of contemporary issues
 - an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.

Curriculum: SE Major Required Courses

For students who started UG in Fall 2022 and newer Fall cohorts:

Suggested Semester	Course Code	Course Title	Credit Hours	Prerequisites
2 nd semester	ITE 202	IT Systems	3	CSC101
	SE 301	Software Engineering Principles	3	ITE202

3 rd semester	SE 311	System Analysis and Design	3	SE301 (co-requisite)
	ITE 303	Introduction to Programming	3	ITE202 & MTH235
4 th semester	SE 421	Software Design and Models	3	SE311 & ITE303
	ITE 301	Data Communications and Networks	3	ITE202
	ITS 350	Introduction to Data Structures and Algorithms	3	ITE303
5 th semester	ITE 305	Database Management Systems	3	ITE202
	ITE 308	IT Project Management	3	ITE301
	SE355	Distributed Computing	3	ITS350 & ITE301
6 th semester	SE 422	Concurrent and Parallel Programming	3	ITE303
	SE 423	Enterprise Software Architecture	3	SE355
	ITE 409	Advanced Programming	3	ITE303
7 th semester	SE 455	Software Testing	3	SE 301 & ITE 303
	SE 490	SE Capstone Project I	3	SE311 & ITE303
8 th semester	SE 491	SE Capstone Project II	3	SE 490
TOTAL:			48 Credits	

For students who started UG in Spring 2023 and newer Spring cohorts:

Suggested Semester	Course Code	Course Title	Credit Hours	Prerequisites
2 nd semester	ITE 202	IT Systems	3	CSC101
3 rd semester	SE 301	Software Engineering Principles	3	ITE202
	SE 311	System Analysis and Design	3	SE301 (corequisite)
	ITE 303	Introduction to Programming	3	ITE202 & MTH235
4 th semester	ITE 301	Data Communications and Networks	3	ITE202
	ITE 305	Database Management Systems	3	ITE202
5 th semester	SE 421	Software Design and Models	3	SE311 & ITE303
	ITE 308	IT Project Management	3	ITE301
	ITE 409	Advanced Programming	3	ITE303

	ITS 350	Introduction to Data Structures and Algorithms	3	ITE303
6 th semester	SE355	Distributed Computing	3	ITS350 & ITE301
	SE 455	Software Testing	3	SE301 & ITE303
	SE 490	SE Capstone Project I	3	SE311 & ITE303
7 th semester	SE 422	Concurrent and Parallel Programming	3	ITE303
	SE 423	Enterprise Software Architecture	3	SE355
8 th semester	SE 491	SE Capstone Project II	3	SE490
TOTAL:			48 Credits	

SE elective courses are any courses offered by the Department of IT/SE that are 300-level and above and are not listed as required courses for SE.

Bachelor of Science in Cybersecurity

Supported by Texas International Education Consortium (TIEC) and the Texas A&M University System RELLIS center, the goal of the AUIS Cybersecurity department is to produce graduates that are proficient in the use of data synthesis techniques and new technologies, and have a solid understanding of the capabilities of virtual environments, artificial intelligence, and computational modeling and analytics.

The program is designed for students interested in developing expertise in the theoretical and practical aspects of cybersecurity and cyber defense. Cybersecurity is an inherently interdisciplinary discipline, dealing with methods, systems, and concepts aimed at ensuring safety, resilience, and recovery of computing infrastructures. Cybersecurity employs theories, methodologies, and tools drawn from many fields, within the broad areas of computer science, information systems, computer engineering, and criminal justice. The methodologies and techniques find application in a variety of domains, encompassing the full range of threat reduction, vulnerability reduction, deterrence, international engagement, incident response, resiliency, and recovery policies and activities, including computer network operations, information assurance, law enforcement, diplomacy, military, and intelligence missions as they relate to the security and stability of the global information and communications infrastructure.

Curriculum: Cybersecurity Major Required Courses

Suggested Semester	Course Code	Course Title	Credit Hours	Prerequisites
2 nd semester	ITE 202	IT Systems	3	CSC101
3 rd semester	ITE 303	Introduction to Programming	3	ITE202 & MTH235
	ITE 305	Database Management Systems	3	ITE202
	ITE 301	Data Communications and Networks	3	ITE202
4 th semester	NEW	Foundations of Cybersecurity	3	ITE303
	NEW	Foundations of Computing	3	ITE303

	ITE 306	Computing Platforms	3	ITE 202
5 th semester	NEW	Principles of Systems Programming	3	ITE306
	NEW	Network Security and Protocols	3	ITE301
	ITS350	Data Structures and Algorithms	3	ITE303
	ITE 308	IT Project Management	3	ITE301
6 th semester	ITE 403	Information Security	3	ITE301 & ITE308
	ITE 407	Advanced Database Management Systems	3	ITE303 & ITE305
	ITE409	Advanced Programming	3	ITE303
7 th semester	NEW	Secure Electronic Commerce	3	ITS350
	NEW	Cybersecurity Capstone I	3	ITE306 & ITE308
8 th semester	ITE 406	Professional Ethics and Communications	3	ITE308
	NEW	Cybersecurity Capstone II	3	Cybersecurity Capstone I
TOTAL			54 Credits	

Cybersecurity major requirements are: 54 credits **Cybersecurity major required courses**, and 6 credits **Cybersecurity elective courses**. Students can take 15 credits as a minor, concentration, or general elective courses.

The Department of Mathematics and Natural Sciences

Majors

A student's major is his or her primary program of study, and it defines the degree earned by each student upon graduation. Each student must declare his or her major degree program in the third semester of the Academic Program. Students must consult with their academic adviser before they can change their major field of study.

Concentrations

A concentration at AUIS is a 5-course program that allows students to explore a subject within their major field of study in more depth. Concentrations are optional, and only students in the major are eligible to take the accompanying concentrations (for example, concentrations in the IT program are only open to IT majors). Students may only declare one concentration, and this may be declared to the Registration and Records Office at any time before graduation from the Academic Program.

Minors

A minor at AUIS is a 5-course program of study in a specific subject that supplements a student's major study. Minors are optional, and a student's minor must be in a subject which is different from his or her major. Students may declare a maximum of two minors, and they may be declared to the Registration and Records Office at any time before graduation from the Academic Program.

Upon admissions to the Academic Program, undergraduate students will be assigned faculty advisers. Each academic student should meet with her or his faculty adviser at least once per semester to discuss their academic plan and to ensure they will fulfill all necessary credits for graduation. Advisers are responsible for maintaining a schedule that allows them to be accessible to their students.

Students must meet with their adviser before they are eligible to register for courses for the following semester.

Although advisers are available for help and guidance, students must assume the ultimate responsibility for the course of their educational careers. Students should become familiar with university policies, procedures, and program requirements; recognize the necessity of getting timely assistance with academic issues; and schedule meetings with their advisers in advance so that both parties have time to prepare.

It is important to note that while students have only one adviser, advisers often have many advisees, in addition to teaching, research, and committee responsibilities.

Math and Science Center

The Math and Science Center (MSC), located in A-B1-45, operates under the Mathematics and Sciences department in coordination with the Student Services Student Employment Program. It offers student-led review sessions and tutoring for all mathematics and science courses. Each semester, students submit applications to work

up to 10 hours a week at the MSC. The center is overseen by a coordinator who also works with MNS faculty to stay up-to-date with current course material and assignments. Tutoring is offered to students on a walk-in basis or by appointment. Schedules and tutoring hours are posted outside the Math and Science Center and on the AUIS website. Apart from tutoring, the MSC also organizes the Math Fest event and recruits and trains the AUIS Math Team. For enquiries, contact mns.center@auis.edu.krd.

The Department of Mathematics and Natural Sciences

In the Mathematics and Natural Sciences Department, we are committed to teaching students the quantitative, scientific, and rational reasoning skills that are integral to a liberal arts education. These skills provide a foundation for further study in various scientific and technological fields. Our courses compose a significant part of the AUIS core curriculum, and we work closely with degree-granting departments to address the quantitative and scientific needs of their students.

Department Goals and Learning Outcomes

- Provide all AUIS students with an education in mathematics and sciences which will serve as part of a foundation for long-life learning of science and math.
- Offer a high-quality course of study in mathematics and the natural sciences that integrate with and responds to the needs of other academic departments.
- Support and engage students in scientific research.
- Increase the students' appreciation of mathematics and sciences, and develop quantitative and scientific reasoning skills.
- Build students' confidence in their abilities to understand and apply mathematics.
- Provide new interdisciplinary programs, and increase the availability of math and science courses for AUIS students.
- Integrate more technology into each and every math and science course taught at AUIS.

Minor in Mathematics

The Mathematics Minor aims at providing students with a wide background in Mathematics and training them on sharp critical thinking skills while giving them a perspective of the general field of Mathematics.

To enroll in the Math Minor, students will need to have taken Calculus II and pass this course with a minimum of grade of C

To complete a minor in Mathematics students are required to take 5 courses:

Discrete Mathematics -- MTH 235	3 credits
Calculus II -- MTH 233	3 credits
Calculus III -- MTH 331	3 credits
Linear Algebra -- MTH 340	3 credits

One of the following two 3-credit courses:

Introduction to Real Analysis – MTH 410 3 credits

Partial Differential Equations – MTH 432 3 credits

The table below illustrates the structure of the Math minor:

Course Code	Course Title	Credit Hours	Prerequisites
MTH 235	Discrete Mathematics	3	MTH 101 or Placement Test in MTH 133
MTH 233	Calculus II	3	MTH 232
MTH 331	Calculus III	3	MTH 233
MTH 340	Linear Algebra	3	30 credits
MTH 410OR MTH 432	Introduction to Real Analysis OR Partial Differential Equations	3	MTH 331OR MTH 331 and MTH 332

The Department of Medical and Health Sciences (MHS)

The Medical and Health Sciences Department is the youngest established academic department at the American University of Iraq-Suleimani (AUIS). Utilizing a U.S.-based curriculum, state of art equipment, and western educated faculty, the department aims to:

- (1) Provide high quality academic education in the field of medical and health sciences,
- (2) Prepare young leaders to lead their community to a better future,
- (3) Improve healthcare sector in KRG and Iraq,
- (4) Provide opportunity to faculty and professionals in the community to address suppressing medical and health issues via research and scholarship.

Currently, the department offers a bachelor degree in Medical Laboratory Science (MLS), opened to students in 2018 and graduating the first group of students in Spring 2022 and a minor in Public Health.

Bachelor of Medical Laboratory Science Mission of the Major

The primary mission of the MLS Program is to educate and equip students with the knowledge, critical thinking, scientific literacy, problem-solving and practical skills that are essential for a professional clinical laboratory scientist. The program aims to train highly competent and socially responsible professionals who contribute to the improvement of public health and well-being, as well as the development of the medical sciences practice and research in Iraq and the Middle Eastern region. Besides preparing students to perform and interpret laboratory results in various physical, chemical, and biological specialties, the AUIS MLS program emphasizes the principles of ethical and pluralistic practices in the medical fields.

Vision of the major

The vision of the AUIS MLS program is to become a local and regional model in medical laboratory education and research. To accomplish this, AUIS has developed and implemented a curriculum of international standards, established modern state-of-the-art laboratory infrastructure, and congregated faculty experts from around the world. It adheres to national and international health and safety standards, seeks international accreditation, and addresses public health problems of high relevance to Iraq and the Middle Eastern region.

Program Learning Objectives (PLOs)

After successful completion of the AUIS MLS Program, graduates will be able to:

- Collect, prepare, store and transport human samples for analysis using appropriate preservation and handling methods.
- Follow prescribed procedures, and with adequate orientation, perform routine testing in chemistry, microbiology, immunology, immunohematology, hematology, hemostasis, and molecular diagnostics.

- Operate and calibrate clinical laboratory instruments or equipment after proper orientation.
- Recognize and correct basic instrument malfunctions. Refer serious instrument problems to a senior laboratorian or a supervisor when necessary.
- Prepare reagents or media from a prescribed procedure, including calculating necessary computations, using an analytical balance, and adjusting the pH if necessary.
- Evaluate media, reagents, and standards according to established criteria.
- Conduct established quality control procedures on analytical tests, equipment, reagents, media, and products; evaluate results of quality control and implement corrective action when indicated.
- Establish basic quality control procedures, confidence limits, and normal ranges for new procedures or methods.
- Perform comparison studies on new or existing procedures and report results according to conventional scientific formats.
- Assess the reliability of laboratory results through correlation of data with common physiological conditions.
- In prescribed instances indicate the need for additional laboratory tests for definitive diagnostic information.
- Provide clinical orientation and supervision for students and new or less skilled laboratory personnel. Lecture or provide class demonstrations.
- Practice established safety measures.
- Inform superiors of activities including unusual patient data or results.
- Recognize and act on the need for continuing education to maintain and grow in professional competencies.
- Present effective in-service continuing education sessions when asked.
- Apply managerial/supervisory skills for completion of projects as assigned.
- Comply with applicable regulatory statutes.
- Practice quality assurance and performance improvement techniques for optimum laboratory analysis.
- Manage laboratory operations and human resources to ensure cost-effective, high-quality laboratory services.
- Communicate effectively with members of the healthcare team, external relations, and patients.
- Evaluate research and published studies to remain informed of new techniques and procedures.
- Utilize information management systems to provide timely and accurate reporting of laboratory data.
- Behave in a professional and ethical manner.
- Maintain focus on the patient to provide quality laboratory services.

Required Core-Program Courses for the MLS Degree:

Category	Required Courses	Required Credits
1 st	CSC 101	3
	ENG 101	3
	CIV 101	3
2 nd	ENG 102	3
	MTH 133	3
3 rd	ENG 203	3
	CIV 203	3
	STT 201	3
4 th	CIV 204	3
	Humanity Core ¹	3
Total		/30 credits

Required Major Courses for the MLS Degree:

Suggested Semester	Course Code	Pre-requisite	Credits
1 st	General Biology I + Lab (BIO 102 + BIOL102)	None	4
	Chemistry I + Lab (CHEM 232 + CHEML 232)	None	4
2 nd	Biology II + Lab (BIO 203 + BIOL 203)	BIO/L 102	4
	Chemistry II + Lab (CHEM 233 + CHEML 233)	CHEM/L 232	4
3 rd	Physics for Life Science + Lab (PHYS 224 + PHYSL 224) PHYS/L 232 can also fulfill this requirement	None	4
	Clinical Laboratory Science Methods & Techniques (HSCI 201)	MLS major Declaration	2
4 th	Organic Chemistry + Lab (CHEM/L 241)	CHEM/L 233	4
	Human Anatomy + Lab (BIO/L 231)	BIO/L 203	4
5 th	Biochemistry + Lab (CHEM/L 351)	BIO/L 203 CHEM/L 241	4
	Human Physiology + Lab (BIO/L 341)	BIO/L 231 CHEM/L 232 PHYS/L 224	4
	Microbiology + Lab (BIO/L 351)	BIO/L 203 CHEM/L 233	4

	Bioethics (BIOE 301)	BIO/L 203	2
6th	Molecular Biology + Lab(BIO 362)	BIO/L 203 CHEM/L 241 STT 201	4
	Medical Microbiology + Lab (MEDS 322)	BIO/L 351 HSCI 201	4
	Immunology + Lab(MEDS 332)	BIO/L 341 BIO/L 351 HSCI 201	4
	Hematology + Lab(MEDS 342)	BIO/L 341 CHEM 241 HSCI 201	4
7th Clinical*	MLS Operation (MEDS 401)	HSCI 201 BIOE 301	2
	Public Health (HSCI 411)	MEDS 322 BIOE 301	3
	Clinical Chemistry (MEDS 422)	BIO 362, CHEM 351, MEDS 332, BIOE 301	3
	Clinical Laboratory Rotation I (CLP 411)		6
	Medical Laboratory Management	MLS Senior Status	3
8th Clinical*	Body Fluids Analysis(MEDS 423)	MES 322, MEDS 422 MEDS 401	2
	Medical Parasitology (MEDS 421)	MEDS 322, MEDS 332 HSCI 411	2
	Transfusion Medicine (MEDS 445)	MEDS 332	3
	Clinical Laboratory Rotation II (CLP 442)	MEDS 342 CLP 411	6
	MLS Capstone Project (MEDS 450)	CLP 411	3
Total			/93 Credits

Minor in Public Health:

The Medical & Health Sciences (MHS) department provide an opportunity to enrolled AUIS students from all departments to gain some background and training in public health that can nicely combine with any other major degree. The Public health sector has exponentially grown over the past couple of years due to its importance and involvement in every part of our modern life. The most recent pandemic just shows how important public health is and crucial to our life. Given the need for public health in our society and the lack of academic programs

in public health, minoring in public health will increase students' employment potential along with their market value. The Medical Sciences department has a plan to offer a major degree in Public Health in the very near future to address the need of such a profession.

Enrolled AUIS Students from all departments and majors are eligible to minor in Public Health. Students will have to take 5 courses (total of 15 credits) to complete the minor.

Below are the list of the core and elective courses:

- Core Courses (students must complete the three below courses)
 - Gender Health in Developing World (SCI 280)
 - Bioethics (BIOE 301)
 - Public Health (HSCI 411)

- Elective courses (students must choose two courses of the below):
 - Introduction to Psychology (PSY 101)
 - History of Medicine (HST 103)
 - Introduction to Disability (PHI 203)
 - Nutrition & Health/ Intro to Food Sciences (SCI 260)
 - Disease Prevention & Health Promotion (To be Offered)

Course Code	Course Title	Credit Hours	Prerequisites
SCI 280	Gender Health in Developing World	3	SCI 101 or BIO 102 + ENG 102
BIOE 301	Bioethics	2	None
HSCI 411	Public Health	3	BIOE 301
PSY 101	Introduction to Psychology	3	None
HST 102	History of Medicine	3	None
PHI 203	Introduction to Disability	3	None
SCI 260	Nutrition & Health/ Intro to Food Sciences	3	None

The Department of Social Sciences and Law

The Department of Social Science offers three majors: International Studies (IS), International Relations (IR), and Law. IS offers a broad education that includes geography, history, philosophy, economics, and politics. International Relations focuses on the intersection of law, economics, and international politics, especially the future relations between the West, the Middle East, and East Asia. The Law program offers university-level Law courses in both English and Arabic, as well as a broad array of courses in the natural and social sciences that are part of the University's Core Curriculum. The legal studies program at AUIS has been in development in collaboration with Stanford Law School. The Social Sciences department also offers four minors - International Relations, International Studies, Political Science, and Law.

Bachelor of Arts in International Relations

Students of International Relations (IR) will take the first step toward becoming career professionals working with government agencies, international organizations, and NGOs to solve pressing issues facing this region. The Department of International Relations actively collaborates with experienced domestic and international advisors to harness the expertise of dozens of universities worldwide. As a result, IR students have the opportunity to study at partner institutions in Italy and Greece with more partnerships in Central Asia and East Asia coming soon. This academic network allows AUIS to design a comprehensive program dedicated to educating the next generation of IR experts who can deliver exceptional service to their companies, their communities, their regions, and the nation.

Students begin with introductory courses in International Political Economy, Comparative Politics, and International Relations. Through elective courses, both practical and theoretical, students acquire more advanced knowledge of:

- Diplomacy and Leadership: the nature of political conflict, and ways to mitigate or resolve conflicts;
- Foreign Policy and International Law: how the international system works and how politicians and diplomats navigate these institutions to promote peace and prosperity;
- Political Economy: the economic challenges of the prevailing petro-economy in the Kurdish region and Iraq as well as ways to promote non-oil industries in the region;
- Europe and East Asia: the politic institutions of two critical regions that will play a prominent role in the future of the Kurdish region and Iraq. Our Korean Studies program is the first recognized program in Iraq with more to come.
- Students will also learn research skills that they will apply to a research project in the International Relations Capstone in their senior year.

Bachelor of Arts in International Studies

The International Studies major offers students humane learning, practically applied. We study culture, politics, government, and development, past and present. Countries, nations and states, peoples and individuals are our subjects, in themselves and as they interact. We think beyond the clash of black and white and explore alternative futures for Iraq and the KRG. We bring

intellectual rigor to what cannot be brought into the pristine environment of the laboratory. Our majors learn how to think and act with respect to human things – in both the public and private sectors.

International Studies majors prepare for a wide range of careers: local and national government, administration, diplomacy, international business, non-governmental organizations, as well as teaching and journalism. They pursue graduate degrees all over the world in fields such as law, business, economics, political science, and history. When they complete their degrees, they receive competitive job offers and do work that makes a difference.

Students begin with general introductory courses in International Studies, Economics and World Geography. Through elective courses, both practical and theoretical, students acquire more advanced knowledge of:

- Political Science: Ways of organizing power locally and nationally understood through an examination of political behavior, culture, and systems;
- History: The examination of continuity, change, and causation in past societies and the use of historical evidence to question, interpret and build arguments about the past;
- Political Philosophy: Persistent questions — who should rule? What is the value of justice?— and traditional strong answers;
- Area Studies: The religion, culture, philosophy, and literature of particular areas of the world.

- Students apply the knowledge and skills acquired in these classes in a research project in the International Studies Capstone in their senior year.

Learning Outcomes Skills

1. Critical Reading: Analyze, interpret, and synthesize different ways of looking at the world including those from traditionally marginalized voices.
2. Critical Thinking: Engage with sources that address fundamental problems in a manner that is informed by reason and evidence and recognizes varieties of bias.
3. Communication: Engage in listening to others and exchanging ideas, and presenting arguments in a logical and empathetic manner in writing and speech.
4. Research: Define and conduct scholarly investigations based on appropriate methods and theories.
5. Contexts: Explore and analyze worldviews and power structures and their consequences on the lives of people from a variety of societies, cultures, circumstances, and time periods.
6. Theory: Reflect on theoretical approaches and compare research strategies from the various social science disciplines.
7. Practice: Integrate theoretical approaches into the analysis of social phenomena and to problems in the contemporary world.

International Relations Required Courses

Code	Title	Prerequisites	Credits
ECO 211	Introduction to the International Political Economy	30 earned credits	3
GEO 303	World Geography	30 earned credits	3
HST 421	Religion in Iraq	45 earned credits	3
IR 301 / POL 302	Introduction to International Relations	30 earned credits	3
IR 302	Introduction to Diplomacy	30 earned credits	3
IR 303	Decolonizing International Relations	30 earned credits	3
IR 420 / POL 420	International Relations of the Middle East	45 earned credits	3
IR 450	International Organizations	45 earned credits	3
LGS 210	Introduction to the Laws of Iraq and Iraqi Kurdistan	None	3
LGS 410	Public International Law	60 earned credits	3
POL 201	Politics and Government	R 100 and W 100 (if student did not directly enter the UG program)	3
POL 301	Comparative Political Systems	30 earned credits	3
POL 303	Political Philosophy	30 earned credits	3
POL 305	Political Economy of Petro-States	30 earned credits	3
POL 310	Research Methods in the Social Sciences	30 earned credits	3
POL 311	Research Design	POL 310	3
POL 350	European Union	30 earned credits	3

POL 351	Politics of East Asia	30 earned credits	3
POL 404	Leaders and Statesmen	45 earned credits	3
POL 405	American Foreign Policy	45 earned credits	3
POL 407	International Tourism Economy	45 earned credits	3
IR 410	International Relations Capstone	75 earned credits	3

Recommended Plan for completing the International Relations Major by Semester:

Suggested Semester	Recommended Courses
2 nd	ENG 102 LGS 210 MTH 112 POL 201 SCI 102
3 rd	CIV 203 ECO 211 ENG 203 GEO 303 IR 301 / POL 302
4 th	CIV 204 POL 301 POL 303 POL 305 A course in a minor or more courses in IR
5 th	IR 302 IR 303 POL 310 POL 350 POL 351
6 th	STT 201 POL 311 POL 404 POL 407 IR 420 / POL 420
7 th	LGS 410 POL 405 A general education course in Math and Science (3 credits) 2 courses towards a minor or more courses in the major
8 th	HST 421 IR 410

	IR 450 2 courses towards a minor or more courses in the major
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Bachelor of Arts in International Studies

The International Studies major offers students humane learning, practically applied. We study culture, politics, government, and development, past and present. Countries, nations and states, peoples and individuals are our subjects, in themselves and as they interact. We think beyond the clash of black and white and explore alternative futures for Iraq and the KRG. We bring intellectual rigor to what cannot be brought into the pristine environment of the laboratory. Our majors learn how to think and act with respect to human things – in both the public and private sectors.

International Studies majors prepare for a wide range of careers: local and national government, administration, diplomacy, international business, non-governmental organizations, as well as teaching and journalism. They pursue graduate degrees all over the world in fields such as law, business, economics, political science, and history. When they complete their degrees, they receive competitive job offers and do work that makes a difference.

Students begin with general introductory courses in International Studies, Economics and World Geography. Through elective courses, both practical and theoretical, students acquire more advanced knowledge of:

- Political Science: Ways of organizing power locally and nationally understood through an examination of political behavior, culture, and systems;
- History: The examination of continuity, change, and causation in past societies and the use of historical evidence to question, interpret and build arguments about the past;
- Political Philosophy: Persistent questions — who should rule? What is the value of justice? — and traditional strong answers;
- Area Studies: The religion, culture, philosophy, and literature of particular areas of the world.

Students apply the knowledge and skills acquired in these classes in a research project in the International Studies Capstone in their senior year.

Requirements: International Studies Major

- Students must complete 15 total courses (45 credits) in the major. This includes:
- Five required courses including the IST 410 Capstone;
- Five 400-level courses including the Capstone and at least one POL/GOV coded course and one non-POL/GOV coded course.
- At least two more 300 or 400 level non-POL/GOV coded courses.
- The student should fill the remaining slots with 300 or 400 level courses from Social Science classes based on their interests.
- We strongly encourage current students to take ECO 211 rather than ECO 210, as it prepares them better for courses in the major.

A sample degree progress form is available on AUIS' website at: [AUIS Degree Progress Forms](#)

International Studies Required Courses

Code	Title	Prerequisites	Credits
ECO 210 or ECO 211	Introduction to Economics OR Introduction to the International Political Economy	15 earned credits or 30 earned credits	3
GEO 303	World Geography	30 earned credits	3
IST 301	An Introduction to International Studies	30 earned credits	3
POL 303	Political Philosophy	30 earned credits	3
POL 310	Research Methods in the Social Sciences	30 earned credits	3
IST 410	International Studies Capstone	75 earned credits	3
5 x 300 / 400 level classes	At least two courses should be coded POL/GOV and at least two courses should not be coded POL/GOV	Varies with a minimum of 30 earned credits	15
4 x 400 level courses	At least one should be coded POL/GOV and at least one should not be coded POL/GOV	Varies with a minimum of 45 earned credits	12

Recommended Plan for completing the International Studies Major by Semester:

Suggested Semester	Recommended Courses
2 nd	ENG 102 MTH 112 SCI 102 2x Social Science or Humanities General Education Credit Course (3 credits each)
3 rd	ECO 211 ENG 203 CIV 203 GEO 303 POL 303
4 th	CIV 204 POL 310 IST 301 STT 201 (or ENGR 442) POL 305

5 th	POL 301 IST 302 HST 421 A Math and Science General Education Credit Course (3 credits) 1x course towards a minor or more courses in the major
6 th	IST 330 HST 441 3 courses towards a minor or more courses in the major
7 th	POL 350 REL 422 3 courses towards a minor or more courses in the major
8 th	IST 410 POL 404

Minor in Political Science

The Political Science minor introduces students to the empirically based study of government and politics. At the same time, it also seeks to engage with theoretical paradigms in the field as well as the normative questions arising from the exercise of political power. This minor is not available to International Studies majors, who can instead complete a track in Political Science. In order to obtain a minor in Political Science, student must meet the following requirements:

Code	Title	Prerequisites	Credits
POL 310	Research Methods in Social Sciences	None	3
POL 303	Political Philosophy	None	3
Any POL/GOV at 300/400 level			3
Any POL/GOV at 300/400 level			3
Any POL/GOV at 400 level			3

Minor in International Relations

Students begin with introductory courses in International Political Economy, Comparative Politics, and International Relations. Through elective courses, both practical and theoretical, students acquire more advanced knowledge of:

- Diplomacy and Leadership: the nature of political conflict, and ways to mitigate or

resolve conflicts;

- Foreign Policy and International Law: how the international system works and how politicians and diplomats navigate these institutions to promote peace and prosperity;
- Political Economy: the economic challenges of the prevailing petro-economy in the Kurdish region and Iraq as well as ways to promote non-oil industries in the region;
- Europe and East Asia: the politic institutions of two critical regions that will play a prominent role in the future of the Kurdish region and Iraq. Our Korean Studies program is the first recognized program in Iraq with more to come.

International Relations Minor:

Students will choose five of the following courses in order to complete a minor in International Relations.

Code	Title	Prerequisites	Credits
ECO 211	An Introduction to the International Political Economy	30 earned credits	3
IR 301	An Introduction to International Relations	30 earned credits	3
POL 305 OR POL 407	Political Economy of Petro-states OR International Political Economy of Tourism	30 earned credits	3
POL 350 / POL 351	European Union OR Politics of East Asia	30 earned credits	3
POL 420	International Relations of the Middle East	45 earned credits	3

Minor in International Studies

This minor is inherently interdisciplinary. Students can study the fundamental concepts of the Social Sciences and then explore a broad range of historical, cultural, and political questions. Students may also take an internship (IST 411) to satisfy their 400-level course requirement.

Type	Code	Title	Prerequisites	Credits
Methodology Requirement	IST 301	An Introduction to International Studies	30 earned credits	3
Methodology Requirement	POL 310 OR HST 301	Research Methods in Social Sciences OR Research Methods in History	30 earned credits	3
Foundation Course	GEO 303	World Geography	30 earned credits	3
Subject Elective	Any GEO/GOV/ HST/IR/IST/LIT/PHI/POL/REL at the 300/400 level			3

Subject Elective	Any GEO/GOV/ HST/IR/IST/LIT/PHI/POL/REL at the 400 level	3
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Minor in Law

Minor in law introduces students to some major aspects of the legal system and topics that are essential for international students. This minor will enhance students' understanding of how politics and law will interact with each other including the influence of both law and politics on each other. Legal problems most of the time have apolitical aspect and vice versa. The role of courts in politics in settling political disputes is also examined in Iraq and other comparative examples.

In order to get the minor in law, students are required to take five of the following classes provided that two of them are three hundred, four hundred, or five hundred level course.

Code	Title	Prerequisites	Credits
LAW 101	Human Rights	None	3
LGS 210	Introduction to the Laws of Iraq and Iraqi Kurdistan I: Public Domestic Law	None	3
LGS 225	Introduction to the Laws of Iraq and Iraqi Kurdistan II: Domestic Commercial Law	45 earned credits	3
LGS 301	Thinking Like a Lawyer and Legal Methods	15 earned credits	3
LGS 320	International Business Transactions	35 earned credits	3
LGS 410	Iraq's Engagement with the World I: Public International Law in Iraq and Iraqi Kurdistan	LGS 210, LGS 225, or 50 earned credits	3
LGS 420	Iraq's Engagement with the World II: Private International Law in Iraq and Iraqi Kurdistan	60 earned credits	3
LGS 230	Introduction to Islamic Law	15 earned credits	3
LGS 510	Legal Internship	Any two law classes and 80 credits completed	3

Social Sciences/ Law Major

The Bachelor of Laws

The law major study focuses on teaching students the foundations of legal systems and where they come from. It covers the relationship between law and morality and law and religion and the influence of each in the process of law-making. It also examines the essential question of why people are required to follow laws. Students learn about the differences of legal systems and compare them to how they deal with a specific legal issue. The role and functions of the government are studied and the relationship between politics and law is also one of the major topics in the study of law. Justice, equality, human rights are crucial elements in the study of law because they affect the lives of individuals everywhere. Rule of law and justice are, especially, quite essential for Iraq to transfer to democracy after many years of dictatorship. Law has a strong relationship with many other academic fields including political science, religious studies, philosophy, and administration.

The law major study prepares students to work in the various legal fields in the future. The study of law allows students to work in the public sector including the judicial system, administrative agencies, and diplomacy. Students can also work independently as lawyers and in the private sector including companies, NGOs, and other institutions. In addition, the study of law well qualifies students to nominate themselves for parliamentary and other secondary elections. In fact, lawyers are more represented in many parliaments around the world than any other professionals.

Students will start the study of law by taking some introductory courses that focus on the structure and source of legal systems and the philosophical questions of where laws come from and what affects them. They study fundamental rights and liberties as essential human rights for individuals. Through various courses, both practical and theoretical, students acquire more advanced knowledge of:

- History of legal systems: functioning legal systems around the world and how they perceive laws and their relationship with morality, religion, and traditions of the society. The comparative approach is an essential tool to achieve exposure of students of such legal systems.
- Political science: the distribution of power distribution between various branches of the government is examined through studying the principles of separation of powers and checks and balances.
- Human rights: awareness of fundamental human rights and liberties is essential of law students not only for their own protection but also for their clients in order to achieve justice.
- Governance and administrative systems: examining how the government functions and what are the guarantees of individuals against the government in case of the latter's unfair exercise of powers is also examined. The balance between individuals and A government with public power is crucial for a sound government. Administrative justice is a mechanism for achieving this balance.
- Philosophy: philosophy heavily influenced the nature and character of laws and the development of legal theories. Positivism, naturalism, modernism, liberalism have

all influenced laws and changed how laws deal with controversial issues like the role of the government in the market.

Learning outcomes

Upon successful completion of law program, student will:

- (1) Be familiar with the fundamental principles of law including the sources of law.
- (2) Understand the relationship between law and morality or law and religion and how they affect each other.
- (3) Demonstrate and identify key concepts in substantive law, legal theories, and procedures.
- (4) Demonstrate to identify major legal questions in complicated cases that involve more than one essential issue.
- (5) Demonstrate communication skills, including oral arguments and negotiation skills.
- (6) Analyze complicated legal texts in order to find a sufficient legal answers for legal issues.
- (7) Demonstrate ethical professionalism including integrity and honesty as crucial lawyering skills.
- (8) Demonstrate the ability to examine factual issues and fitting them into the proper legal contexts.

Requirements: Law Major

Students are required to take 111 credit hours law courses and 30 credit hours as core requirements according to the following Degree Progress Form.

Semester	Course Code	Course Title	Credits	Prerequisites
1	Arabic 201/Lab	Introductory Arabic	4	Law major, OR Translation major + department chair-approval
	Law 101	Human Rights	3	None
2nd	Arabic 202:	Intermediate Arabic	4	Law Major
	LGS 205A	Introduction to Law	3	None
3rd	LGS 220	Legal Terminologies	3	None
	LAW 110A	Constitutional Law	3	15 earned credits
	LAW 120	Fundamentals of the Science of Criminology and Punishment	3	None
	LAW 301	Thinking Like a Lawyer	3	15 earned credits
	LAW 201A	Civil Law: Sources of Obligations	3	35 earned credits
	LAW 240	Administrative Law: General Principles and Administrative Acts	3	LGS 205A or 60 earned credits

4th	LAW 220A	Criminal Law- the General Part	3	35 earned credits
	LAW 210 (POL 303)	Constitutional Law: State Theory	3	45 earned credits
Summer	LAW P1	Practicum	2	55 earned credits
5th	LAW 230	Civil Law: Principles and Contracts	3	LGS 205 or 30 earned credits
	Law 203A	Fundamental of Islamic Jurisprudence	3	25 earned credits
	Law 340	Administrative Law Part II	3	60 earned credits
	Law 355	Labor and Social Securities Law	3	55 earned credits
Summer	LAW P2	Law Practicum	2	TBD
6th	LAW 301A	Civil Law- Execution of Obligations	3	LGS 205 or 60 credits earned
	LAW 303A	Personal Status Law- Marriage and Divorce	3	LGS 205A or 60 earned credits
	LAW 320A	Criminal Law: Specific Part	3	LAW 220A
	LAW 350	Public Finance and Financial Legislations	3	60 earned credits
	LAW 330	Companies Law	3	55 earned credits
7th	LAW 420A	Criminal Procedures Law	3	70 earned credits
	LAW 430	Commercial Papers	3	60 earned credits
	LAW 375A	Civil Law: Civil Contracts	3	60 earned credits
	LAW 399	International Organizations	3	45 earned credits

	LAW 390A	Administrative Justice	3	70 earned credits
8th	LAW 401A	Execution Law	3	TBD
	LGS 410	Public International Law	3	LGS210, LGS 225, or (for law major 55 earned credits)
	LAW 495	Criminal Investigation and Forensic Medicine	3	TBD
	LGS 420	Private International Law	3	45 earned credits
9th	LAW 460A	Civil Law- Real Rights	3	70 earned credits
	LAW 490A	Civil Procedures Law	3	TBD
	LAW 499	Research Method and Graduation Research	3	TBD
	LAW 475	Complementary Laws (Public and Private)	3	60 earned credits
	LAW 470	Personal Status Law- Inheritance and Will	3	50 earned credits
	TOTAL:		111 credits	

College of Dentistry

The College of Dentistry is a newly established college at the American University of Iraq, Sulaimani (AUIS), which provides top-level education in Dental Surgery. The college boasts state-of-the-art dental clinics and laboratories equipped with advanced technology used in diverse branches of dentistry.

A wide range of courses are taught by different local and international academic staff from varying branches of dentistry as well as other scientific branches. The courses offer the latest information and evolutionary advancements in the field.

The teaching quality within our college is supported by a highly qualified and experienced team of academic staff, who have acquired their degrees from dentistry universities in the United States, United Kingdom, and beyond.

Vision:

We aspire to be a leading dental college that prioritizes authentic dental research, fosters the education of future dental professionals, and contributes to the community. Our rigorous 5-year program is designed to equip graduates with the essential skills and knowledge required to serve the community effectively and excel within the dental field. Our aim is to enhance the standards of dental practice in the Kurdistan region of Iraq and the entire country, while also advancing research and addressing the strengths and weaknesses of dentistry in our region to compete on a global scale.

Mission:

Our mission is to educate future dentists who will make a positive impact on oral health through exceptional patient care, academic excellence, research, leadership, and dedication to the communities we serve. We prioritize practical and clinical training to ensure the development of highly skilled and qualified dentists for the future. This is done through our cutting-edge laboratories and dental clinics, and guided by a team of experienced faculty and supervisors. Furthermore, the college of dentistry program places a strong emphasis on integrating ethical principles into dental practice, alongside the acquisition of dental skills and scientific knowledge.

Goals & Objectives:

Our college is committed to improving the quality of dental care in Kurdistan Region of Iraq and Iraq. We strive to achieve this goal by:

- a. Providing an environment for learning clinical and intellectual skills with an emphasis on diagnosing, treatment planning and comprehensive dental care to all patients.
- b. Providing clinical experience in the management of the medically compromised patient.
- c. Promoting Oral health education and awareness in the community.
- d. Providing training experiences in hospital protocol, management of inpatients, patient rounds and interaction with other hospital specialties.

- e. Providing experiences in dealing with and managing acute dental emergencies and problems.
- f. To learn operating room protocol by assisting and performing procedures in the operating room.
- g. Providing clinical experience for a foundation in conscious sedation.
- h. Providing Advanced Cardiac Life Support training and certification.

After the successful completion of the 5 years Dentistry program, graduates will be able to:

- Diagnose and manage common dental problems encountered in general dental practice.
- To demonstrate in control pain and anxiety management during dental work.
- To practice dental work with high professional attitude and work ethics.
- To select the best dental problem treatment option according to the medical and social consideration of the patient.
- To be equipped with professional communication skills with patients and people encountered in their practice.
- To participate in dental researches and education.
- To promote oral health and prevent oral diseases.
- To demonstrate the ability to work as a team member as a part of the oral health care program community.
- To interpret the required investigative procedures for dental problems.
- To manage and prevent the complications occurring during procedures.

Bachelor's degree of Dental Surgery (BDS)

College of Dentistry is currently offering a Bachelor's degree in Dental Surgery (BDS) through ten semesters, including our major subjects and the AUIS core programs during which the first cohort started in spring 2023. The specific knowledge covered at this college includes major subjects from foundational courses and various dental branches. The BDS program is designed to equip students with the skills necessary to excel in both public and private sectors.

Required Core Program for College of Dentistry:

Suggested Semester	Course Code	Course Title	Credit Hours	Prerequisites
1st	R 100	Reading 100	3	None
	W 100	Writing 100	3	None
	CSC 101	Computer Science and IT Applications	3	None
	EDM 101	Ethics and Patients' Rights in Dental Medicine	2	None
	BID 101	Biology + Lab	3	None
2nd	ENG 101	Argument	3	R 100 and W 100 or direct entry
	MPHIS 101	Medical Professions in World History	3	W 100, R 100

3rd	CIV 203	Modern Dental Professional	3	26 Earned Credits
	ENG 102	Critical Reading	3	ENG 101
	BCH 203	Biochemistry + Lab	3	26 Earned Credits
6th	STT 344	Dental Public Health	3	CSC 101
8th	ENG 203	Research & Project - Writing	3	ENG 102
Total Credits			35	

Required Major Courses for College of Dentistry:

Suggested Semester	Course Code	Course Title	Credits Hour	Prerequisites
1st	TER 101	Medical Terminologies	2	None
2nd	DEN 201	Dental Anatomy and Morphology + Lab	4	TER 101
	DEN 202	Head and Neck Human Anatomy + Lab	3	TER 101
	DEN 203	Oral Histology and Embryology +Lab	3	BID 101
3rd	DEN 302	Gross Anatomy + Lab	3	DEN 202
	DEN 303	General Pathology + Lab	2	DEN 203
	DEN 304	Pre-Clinical Prosthodontics I (Complete Denture) + Lab	2	26 Earned Credits
	DEN 305	Pre-Clinical Operative Dentistry I + Lab	2	26 Earned Credits
	DEN 308	Microbiology and Immunology + Lab	3	40 Earned Credits
4th	DEN 314	Pre-Clinical Prosthodontics II (Complete denture)+ Lab	2	DEN 304
	DEN 315	Pre-Clinical Operative Dentistry II + Lab	2	DEN 305
	DEN 309	Physiology + Lab	3	40 Earned Credits
	DEN 310	Cariology	1	40 Earned Credits
	DEN 311	Fundamental Dental Materials + Lab	2	40 Earned Credits
	DEN 312	Evidence Based Dentistry	1	40 Earned Credits
5th	DEN 324	Pre-Clinical Prosthodontics (Partial denture) + Lab	3	DEN 314
	DEN 325	Pre-Clinical Fixed Prosthodontics + Lab	2	55 Earned Credits
	DEN 326	Pre-Clinical Periodontics + Lab	3	55 Earned Credits
	DEN 327	Basics of Oral Surgery + Lab	3	55 Earned Credits
	DEN 321	Applied Dental Materials + Lab	2	DEN 311

	DEN 328	General Surgery + Clinic	2	55 Earned Credits
	DEN 331	Fundamental of Occlusion	1	55 Earned Credits
6th	DEN 340	Pharmacology +Lab	3	BCH 203
	DEN 350	General Medicine + Clinic	2	DEN 328
	DEN 355	Pre-Clinical Orthodontics + Lab	2	71 Earned Credits
	DEN 360	Pre-Clinical Endodontics + Lab	2	71 Earned Credits
	DEN 361	Practice Management + Clinic	2	71 Earned Credits
	DEN 365	Oral Radiology + Clinic	2	71 Earned Credits
7th	DEN 400	Oral and Maxillofacial Radiology + Clinic	2	DEN 365
	DEN 401	Clinical Oral Surgery + Clinic	4	DEN 327
	DEN 415	Clinical Operative Dentistry + Clinic	3	87 Earned Credits
	DEN 420	Oral Pathology I + Lab	2	87 Earned Credits
	DEN 425	Clinical Periodontics + Clinic	4	DEN 326
8th	DEN 455	Clinical Orthodontics + Clinic	4	DEN 355
	DEN 430	Oral Pathology II + Lab	2	DEN 420
	DEN 438	Basics of Endodontics + Clinic	3	DEN 360
	DEN 440	Clinical Prosthetic Dentistry + Clinic	4	DEN 324
	DEN 444	Digital Dentistry + Clinic	2	120 Earned Credits
Summer	DEN 490	Clinical Practice in Dentistry Field	3	120 Earned Credits
9th	DEN 448	Advances in Endodontics + Clinic	3	DEN 438
	DEN 445	Oral Medicine + Clinic	4	DEN 430
	DEN 465	Advances in Orthodontics + Clinic	3	DEN 455
	DEN 475	Periodontics and Implantology + Clinic	4	DEN 425
	DEN 471	Inter-professional Education for Health Care	1	123 Earned Credits
	DEN 491	Graduation Research Project	2	ENG 203
10th	DEN 494	Advances in Prosthodontics + Clinic	4	140 Earned Credits
	DEN 495	Oral and Maxillofacial Surgery + Clinic	4	140 Earned Credits
	DEN 496	Pediatric Dentistry + Clinic	4	140 Earned Credits
	DEN 497	Clinical Fixed Prosthodontics + Clinic	3	140 Earned Credits
	DEN 498	Preventive Dentistry	1	140 Earned Credits
Total Credits			130	

College of Pharmacy

The AUIS – College of Pharmacy was established in 2022 to deliver an outstanding modern pharmacy education and award a bachelor's degree in pharmacy (BSc. Pharmacy). It is anticipated that our graduates will provide the community with high-standard pharmaceutical care and will efficiently contribute to developing healthcare services in the region and country. Besides, our program provides the alumni with the necessary skills to utilize advanced drug design and development technologies.

The college is currently offering a bachelor's degree in pharmacy "(BSc. Pharma.)" Our first cohort will graduate in 2028.

The College Aims to,

- Prepare junior pharmacists as professional leaders in pharmaceutical care services.
- Provide the community with well-prepared pharmacists capable of utilizing modern medical and pharmaceutical techniques and approaches in pharmaceutical care.
- Contribute to the healthcare services' improvement in Kurdistan Region and Iraq by infusing the healthcare system with efficient and problem-solving graduates who can utilize artificial intelligence (AI) programs in clinical Pharmacy and drug development.
- Supply the local pharmaceutical industry with hardworking, well-trained graduates eligible to face the challenges and provide proper solutions for them.
- Prepare critical thinkers with research minds and adequate practical capabilities to solve medical and pharmaceutical problems.
- Currently, the AUIS – College of Pharmacy offers a bachelor's degree in pharmacy (BSc. Pharm.), opened to students in 2022 and graduating the first group in 2028.

The Mission of the Major:

The mission of the Bachelor of Pharmacy (BSc. Pharm.) Program at the American University of Iraq, Sulaimani is rooted in the aspiration to advance the scientific quality and ingenuity inherent in the field of pharmacy. This mission is accomplished through a multipronged approach, encompassing education, research, innovation, and active community engagement.

The program is designed to inspire both faculty and students to engage in a process of continuous discovery and dissemination of knowledge. Central to the realization of this mission is the fostering of an educational environment that underscores competence, creativity, and novelty. The pedagogical approach focuses on problem-based, integrative, and self-directed learning paradigms.

Additionally, the program is bolstered by advanced learning resources, an internationally certified curriculum, and the application of contemporary pharmaceutical techniques. These resources and methodologies provide an assurance of nurturing pharmacists who will contribute significantly to healthcare services.

In summary, the mission of the Bachelor of Pharmacy (BSc. Pharm.) Program at AUIS is to enhance the professional sphere of pharmacy through a holistic education approach, thereby producing knowledgeable and innovative graduates who can serve as leaders in the domain of healthcare services.

The Vision of the Major:

Our vision for the Bachelor of Pharmacy (BSc. Pharm.) Program extends beyond the conventional realms of education. We aspire to position ourselves as leaders in pharmaceutical education on both regional and national stages, making strides towards the development of a vibrant pharmaceutical research platform.

Furthermore, we are committed to fostering an environment of collaboration, extending our accumulated expertise to fellow educational institutes. This commitment to knowledge-sharing enhances not just our program but also contributes to the collective growth of the pharmaceutical education landscape.

In addition, we intend to serve as pioneers in the adoption and integration of modern pharmaceutical technologies within the health system. By doing so, we aim to bridge the gap between academic knowledge and practical application, benefiting both our students and the broader healthcare sector.

Finally, our vision encompasses gaining recognition for our high standards and values. We strive to distinguish ourselves in the competitive educational sector by upholding and promoting a culture of academic excellence and professional ethics. In all these endeavors, we remain true to our core objective: to serve as the gold standard in pharmaceutical education and research.

Program Learning Outcomes (PLOs):

Upon completion of the Bachelor of Pharmacy (BSc. Pharm.) Program at the American University of Iraq, Sulaimani, students will be able to:

- Know how to accurately calculate parameters for a variety of pharmaceutical dosage forms.
- Know how to perform chemical and pharmaceutical tests on medicinal agents, ensuring their quality, safety, and efficacy.
- Know how to prepare various pharmaceutical formulations and dosage forms with a high degree of precision and efficiency.
- Understand how to utilize natural products and supplements, providing scientifically sound advice for their use in patient care.
- Learn how to conduct pharmacokinetic parameter measurements and assessments using state-of-the-art equipment and software, contributing to optimal patient (therapeutic) outcomes.
- Demonstrate proficient medications' handling, which includes their identification, proper storage, and dispensation.
- Demonstrate the ability to read and interpret prescriptions, while providing informed advice on therapeutic management, medication dosage regimens, and usage.
- Show scientific and molecular evidence for drug actions and treatment protocols, strengthening the evidence-based practice of pharmacy.
- Provide evidence-based advice for the safe and effective administration and usage of medications.
- Demonstrate a thorough understanding of the underlying stages of drug development process and application process to regulatory bodies.

- Demonstrate holistic understanding of the global health problems in general and pharmaceutical care problems in particular and being able to give logical solutions for them.
- Effectively utilize computational modelling and molecular docking programs in drug discovery and development, keeping abreast of innovative methodologies in pharmaceutical sciences.
- Perform quality control measurements, applying critical judgment to determine the validity of tested pharmaceutical agents.
- Prepare necessary formulation dilutions for patients in a hospital setting, supporting optimal therapeutic outcomes.
- Estimate medication needs based on robust statistical data analysis, contributing to effective pharmacy management and patient care.
- Conduct research activities in diverse pharmaceutical fields, addressing emerging challenges and contributing to the advancement of the field.
- Deliver high-quality pharmaceutical care services to patients and the community, reflecting the ethics and responsibilities of the profession.
- Recognize the applications of natural products and phytotherapeutic agents in disease management, incorporating complementary therapies into patient care when appropriate.
- Offer appropriate and well-informed advice on medication-related matters to the medical team, fostering interprofessional collaboration in healthcare settings.

Curriculum Development

The assigned dean and advisory board members in collaboration with our international experts have finalized the design of a modern curriculum that melts the latest pharmaceutical education elements and aligns with international pharmacy education standards. Upon passing Ten successful semesters, including Pre-Pharmacy “(Foundation Semester)” one, the graduates will be granted an academic degree of Bachelor of Pharmacy (BSc. Pharmacy).

The adopted program employs integrated learning and practical pharmacy placements and melts the current innovative and critical pharmaceutical technologies, including artificial intelligence, pharmacometrics, pharmacogenomics, biotechnology, and clinical pharmacy, into its curriculum. The program duration is five years of ten semesters, starting with a foundation one. Students will be enrolled in multiple problem-based tasks and clinical attachments during the study courses to improve their practical skills and judgments. In addition, the students will practice in the profession in their early enrollment in the program.

Incorporated AUIS Core Program Subjects into the Pharmacy Curriculum

The following Core program subjects are fused to AUIS Pharmacy Major program to enhance student’s linguistic, capabilities and build independent, confident, self-expressing, and critical thinker individuals who can perform better in the following professional academic semesters and beyond.

Suggested Semester	Course Code	Course Title	Credits Hour	Prerequisites
1st	ENG 101	English 101	3	R 100 and W 100 or direct entry
	CIV 101	The Ancient World History	3	R 100 and W 100 or direct entry
	CSC 101	Computer Science and IT Applications	3	None
	MTH 133	Pre-calculus	3	None
	HPS 101	Healthcare Systems and Soft Pharmacy Skills Development	1	None
	TER 101	Medical Terminology	2	None
2nd	BSTT 101	Biostatistics	2	MTH 133
	CHP 102P	Chemistry for Pharmacy + Lab	3	None
	PHC 102	Pharmaceutical Calculations I	2	MTH 133
	BIO 102P	Human Biology and Histology + Lab	4	None
	PHY 102P	Human Anatomy and Physiology I + Lab	3	12 Earned Credits
3rd	ENG 102	Critical Reading and Writing	3	ENG 101
	ORG 203P	Organic Chemistry I + Lab	3	CHP 102P
	PHY 203	Human Anatomy and Physiology II	3	PHY 102P
	MCR 203P	Pharmaceutical Microbiology I (Bacteriology) + Lab	3	BIO 102P
	PHC 203P	Pharmaceutical Calculations II + Lab	3	PHC 102P
4th	ENG 203	Research & Project - Writing	3	ENG 102
	COM 204	Pharmacy Communication Skills	2	HPS 101
	ORG 204P	Organic Chemistry II + Lab	4	ORG 203P
	BCH 204P	Biochemistry + Lab	3	ORG 203P
	MCR 204	Pharmaceutical Microbiology II (Parasitology and Virology)	2	MCR 203P
	PPE 204P	Pharmacy Practice Experience I (PPE I)	1	45 Earned Credits
	OTC 204P	Self-care and OTC Therapy + Lab	2	45 Earned Credits
5th	DRG 305	Drug Informatics	2	OTC 204P, PPE 204P
	DOS 305P	Dosage Forms I + Lab	4	PHC 203P
	BCH 305	Clinical Biochemistry	3	BCH 204P
	PHA 305P	Pharmaceutical Analysis + Lab	3	ORG 204P
	COL 305	Foundation of Pharmacology	2	PHY 203
	IMM 305	Immunology and Vaccination	2	MCR 204
	PPE 305P	Pharmacy Practice Experience II (PPE II)	1	PPE 204P
6th	DRG 306	Drug Development and Innovation	2	ORG 204P, COL 305
	IPTIA 306	Integrated Pathophysiology, Pharmacology, and Therapeutics IA	4	COL 305
	IPTIB 306	Integrated Pathophysiology, Pharmacology, and Therapeutics IB	4	COL 305
	PHS 306P	Pharmacy Skills I	1	COL 305, PPE 305P
	PPE 306P	Pharmacy Practice Experience III (PPE III)	1	PPE 204P
	DOS 306P	Dosage Forms II + Lab	3	DOS 305P
	PCH 306	Chemical Basis of Drug Action I	3	ORG 204P

7th	IPTIIA 407	Integrated Pathophysiology, Pharmacology, and Therapeutics IIA	4	IPTIA 306, IPTIB 306, PHS 306P
	IPTIIB 407	Integrated, Pathophysiology, Pharmacology, and Therapeutics IIB	4	IPTIA 306, IPTIB 306, PHS 306P
	PHS 407P	Pharmacy Skills II	1	PHS 306P
	PCH 407	Chemical Basis of Drug Action II	2	PCH 306
	PPE 407P	Pharmacy Practice Experience IV (PPE IV)	1	PPE 305P
	DOS 407P	Dosage Forms III + Lab	3	DOS 306P
	COG 407	Pharmacognosy and Plant Poisons	3	ORG 204P, BCH 305, COL 305
Summer	IPP407-AP	Introductory Pharmacy Placement I (IPP I)	1	OTC 204P, DRG 305, PPE 306P
8th	CAM 408	Complementary and Alternative Medicine	2	COG 407
	IPTIII 408	Integrated Pathophysiology, Pharmacology, and Therapeutics III	4	IPTIIA 407, IPTIIB 407, PHS 407P
	PHS 408P	Pharmacy Skills III	1	PHS 407P
	BPH 408	Pharmacokinetics and Biopharmaceutics	4	DOS 407P
	DRD 408	Advanced Drug Delivery Systems	3	PCH 407, DOS 407P
	CIV 203	Civilization III: The Ancient World (Humanities)	3	30 Earned Credits
9th	IPTIV 509	Integrated Pathophysiology, Pharmacology and Therapeutics IV	4	IPTIII 408, PHS 408P
	PHS 509P	Pharmacy Skills IV	1	PHS 408P
	GRP 509P	Graduation Project + Lab	3	Senior Standing
	MAN 509	Pharmacy Management, Ethics, and Law	3	PPE 305P, PPE 407P, IPP407-AP
	IND 509P	Industrial Pharmacy + Lab	4	DOS 407P, DRD 408
	DLE 509	Clinical Drug Literature Evaluation (Research Methodology)	1	DRG 305, COL 305, IPTIII 408, PHS 408P
	IPE 509P	Inter-professional Education	1	PPE 306P, PPE 407P, IPP 407-AP, IPTIV 509
Summer	IPP509-AP	Introductory Pharmacy Placement II (IPP II)	1	IPP 407-AP
10th	GNX 510	Integrated Pharmaceutical Biotechnology, Pharmacogenomics, and Personalized Medicine	3	BIO 102P, COG 407, IPTIV 509
	SIM 510P	Simulation Pharmacy (Practical)	1	PPE 306P, IPP 509-AP, IPTIV 509, PHS 509P
	TOX 510	Toxicology and Drug Poisoning	3	COL 305, IPTIV 509, PHS 509P
	AIP 510P	AI in Pharmaceutical Sciences + Lab	3	CSC 101, PCH 407, PHA 305P, BPH 408, PHS 509P, DRG 305
	CPK 510P	Clinical Pharmacokinetics Skills	1	BPH 408, PHS 509P
	STE 510	Sterile Formulations	2	IND 509P

	COS 510	Cosmetics and Para-pharmaceuticals	2	OTC 204P, IND 509P
Total Credits			165	

Undergraduate Course Descriptions

The Department of Business Administration

ACC 221: Principles of Financial Accounting

This is an introductory course on the basics of accounting principles and practices. It covers the complete accounting cycle from analyzing accounting transactions to preparing and interpreting financial statements.

Prerequisites: MTH 101 (or placement in MTH 133)

Credits: 3

ACC 222: Principles of Managerial Accounting

This course introduces the basic principles of managerial accounting, including manufacturing and cost accounting, budgeting, accounting for management decision-making, the use of accounting information for planning and control, and cash flow and financial statement analysis.

Prerequisites: ACC 221

Credits: 3

ACC 321: Intermediate Accounting I

This course begins a two-course sequence providing an in-depth study of principles and elements associated with financial statements. Includes financial statement analysis, income measurement, valuation of assets and equities, and generally accepted accounting principles.

Prerequisites: ACC 222

Credits: 3

ACC 322: Intermediate Accounting II

Continuation of Intermediate Accounting I; focuses on accounting for the long-term liabilities, stockholder's equity, cash flow analysis and international financial statements.

Prerequisites: ACC 321

Credits: 3

ACC 325: Cost Accounting

Course covers the uses of accounting data for planning control and decision-making. Topics include budgets and cost concepts, techniques and behaviors.

Prerequisites: ACC 222

Credits: 3

ACC 401: Advanced Accounting

This course covers theory and practices of accounting for partnerships, business combinations and consolidated financial statements, and advanced topics in financial accounting.

Prerequisites: ACC 322

Credits: 3

ACC 405: Auditing

Covers auditing theory, generally accepted auditing standards, audit procedures, audit reports and the responsibilities and ethics of the auditing profession. The course includes these topics: risk, evidence, internal controls, sampling, audit testing, subsequent events, professional liability, reporting statutory provisions, compilation and review services, and reporting under government auditing standards.

Prerequisites: ACC 322, ACC 325.

Credits: 3

BUS 202: Introduction to Business

This course is the first step in business learning and covers various business-related topics at an introductory level. The topics covered include entrepreneurship, business ethics, businesses' legal, economic, financial, and global environments, business management and organization, marketing, the role of information technologies, accounting information, and financial management. This course uses an integrated approach to help students appreciate the interrelationships of various business functions and, more generally, the role of business in society.

Prerequisites: 15 credits.

Credits: 3

BLW 301: Business Law

This course examines business legal issues such as legal concepts, philosophy and functions of court systems. It covers a survey of contracts, sales, agents, legal form of business and the regulation of businesses. The course is focused on US law but also considers international and global legal perspectives.

Prerequisites: 45 credits

Credits: 3

BUS 303: Quantitative Business Analysis

This course examines the application of mathematical and statistical techniques for business and management analysis and decision-making. Topics include statistical techniques (building on the content of the core statistics course), project management tools, time series analysis forecasting methods, quality control and decision making techniques in applied settings.

Prerequisites: ECO 220 and STT 201

Credits: 3

BUS 401: Business Ethics

This course provides a comprehensive overview of business ethics in both theory and practice and examines the major ethical issues that challenge business managers in the global marketplace. Business practitioners need to be increasingly knowledgeable and aware of the ethical issues arising in accounting, finance, marketing, human resource management and management generally. The course is intended to teach students to recognize the existence and implications of ethical difficulties in business decision-making, to think independently in this area and to encourage the ability and initiative to develop arguments in support of their own conclusions.

Prerequisites: BLW 301 or LGS 225

Credits: 3

BUS 410: Business Internship

This course is designed for business undergraduate students to gain real work experience before their graduation. It requires students to gain meaningful on-the-job experience in an organization related to business fields such as marketing, accounting, management, business ethics, finance, economics, and entrepreneurship. Enrolled students are expected to have opportunities to experience business communication, presentation, decision making, and problem-solving at the organization that is preapproved by their instructor. This course aims at enabling students to exercise their acquired business knowledge in a real work environment and develop their skills further.

Prerequisites: 90 credits, Business Major Credits: 3

ECO 220: Principles of Microeconomics

This course is the foundational course in economics. It introduces students to the economic way of thinking, the means of understanding systems of social coordination, of understanding phenomenon of human action but not human design. It begins with such concepts as marginal and average, opportunity cost, sunk cost, economic and accounting profit, and tradeoffs. These concepts culminate in the tools of supply and demand curves, and emphasis in this class is placed upon the use of these tools to gain insight into real world examples. The tools and analysis presented in this class will help to illuminate a wide range of social issues, from pollution to the pricing decisions of firms. This class is required for all business students and does not count toward the concentration.

Prerequisite: MTH 101 (or placement in MTH 133)

Credits: 3

ECO 221: Principles of Macroeconomics

This course applies the principles introduced in ECO 220 to examine the performance, structure, and behavior and of the entire economy, be that a national, regional, or the global economy with an emphasis placed upon using micro-foundations to understand macroeconomic behavior. The course introduces concepts of national accounting (GDP, employment rates, etc.) and delves more deeply into what wealth actually is and what government can and cannot do to raise standards of living. This class is required for all business students and does not count toward the concentration.

Prerequisite: ECO 220 or ECO 210

Credits: 3

ECO 320: Intermediate Microeconomics

This course, as an intermediate level study of microeconomics, is designed to extend and build on students' knowledge of basic microeconomic theories & principles. It covers microeconomics topics such as consumer theory, theory of the firm (including production & cost), market structures, and resources markets in depth. Various economic models are developed and analyzed in order to help explain and predict a wide variety of economic phenomena. It teaches how microeconomics models can help one to think about important real world phenomena. Topics include but are not limited to theory of market structures, supply and demand interactions, utility maximization, profit maximization, elasticity, perfect competition, imperfect competition, monopoly power, game theory, and market failures.

Prerequisite: ECO 220

Credits: 3

ECO 321: Intermediate Macroeconomics

This course, as an intermediate macroeconomics course, is designed to enhance and build on students' knowledge on classic macroeconomic topics such as inflation, unemployment, and economic growth as well as appropriate fiscal and monetary policies for achieving macroeconomic goals set by governments. The course will provide analytical / theoretical frameworks, such as the aggregate demand & supply model, to study the behavior of macroeconomic variables such as output measured as real GDP, real GDP growth, price level, employment, consumption, and investment in both short and long runs. Effects of technological progress, productivity, and international economic relations on overall macroeconomic performance, including economic growth and development, will also be examined.

Prerequisite: ECO 221

Credits: 3

ECO 401: Economic Development

Economic development refers to the qualitative and quantitative changes in the economy of a country or a region that lead to a higher standard of living. It is not limited to economic growth, which mainly refers to rise of real GDP due to factors, such as productivity, efficiency, and aggregate supply & demand conditions in the economy. Few regions of the world achieved high standard of living; other regions of the world are either developing or remaining as less developed. This course asks why there are these differences and how can developing and less developed countries also increase their standard of living. Multiple factors - from geography to political stability, from concerted actions of economic policy makers to social and political institutions, from economic system to policies of international organizations, such as the International Monetary Fund, the World Bank, and the UN - affect a country's economic development. This course introduces students to theories of economic development and surveys a wide range of economic development issues.

Prerequisites: ECO 221 or ECO 210

Credits: 3

ECO 404: Public Choice

Public Choice Economics uses economic tools and methods to analyze how politics and government work. The course questions how individuals make collective choices, why do we have a government, how do voters, politicians, and bureaucrats behave in the public sphere. It demonstrates that voters, politicians, and government officials respond to the incentives they face. The course examines how these players' actions, as responses to the incentives that they face, lead to political, economic, and social outcomes in the democratic political process. These outcomes vary depending upon the rule structures and constitutions within which politicians and bureaucrats operate. Therefore, these outcomes and structures are compared with one another and emphasis is placed on real world outcomes. The class covers topics such as difficulties of collective action by large groups, rent-seeking activities of interest groups (or concentrated groups), voters' behavior under different voting systems, collective choice within government, effects of legislative structures on policy outcomes, behavior of bureaucracy, and regulation.

Prerequisites: ECO 221 or ECO 210

Credits: 3

ECO 406: Industrial Organization

Industrial Organization is the branch of economics that analyzes the behavior of firms

under different industrial structures - competitive, monopolistic, and oligopolistic. It is the study of the structure of firms and markets and of their interactions. The course surveys a range of IO topics such as firm costs, cartels, competition, oligopoly, strategic behavior, price discrimination, effects of government policies, regulation or deregulation, antitrust laws, and international trade. It teaches various analytical tools to help students analyze and understand these topics, including transaction cost analysis, game theory, contestability, and information economics. Because the behavior of business directly affects the welfare of a nation, understanding industrial organization is also important for public policy analysis.

Prerequisites: ECO 220

Credits: 3

ECO 499: Special Topics in Economics

This course is intended for economics concentration or minor students and it provides a comprehensive and in-depth treatment of a major topic in economics. Potential topics include but are not limited to industrial organization, oil and economic development, international trade, economic and financial globalization, political economy, money and banking, and financial crises. The subject matter will vary from term to term and be determined by the instructor.

Prerequisites: ECO 221

Credits: 3

FIN 301: Principles of Finance

This course covers the basic concepts of finance including the time value of money, capital budgeting, cost of capital, tradeoffs between risk and return, basic portfolio models, and the capital asset pricing model. Other topics include debt and equity markets, valuation of securities, capital structure, dividend policy, working capital management, and capital restructuring.

Prerequisites: ACC 221 and MTH 121 (or MTH 133)

Credits: 3

FIN 310: Financial Analysis and Forecasting

Provides students with the skills needed to read, analyze, and interpret the information contained in a company's financial statements and related publicly available information, and to develop projection for use in company valuation. Integrates accounting and financial principles and discusses the ethics of both professions.

Pre-requisites: FIN 301

Credits: 3

FIN 320: Money and Banking

The course provides an overview of the banking industry with an emphasis on commercial bank management. Specific topics include the duration and term structure of interest rates, asset/liability management, and risk and credit management.

Pre-requisites: FIN 301 or ECO 221

Credits: 3

FIN 330: Investments

Covers investment objectives, mechanics of buying and selling financial assets, and portfolio management. Focuses on risk versus return in investment theory, but students also construct and manage real-time hypothetical investment portfolios.

Pre-requisites: FIN 301

Credits: 3

FIN 401: International Finance

Covers financing of international trade and investment, foreign exchange markets and exchange rate determination, and balance of payments. Focuses on international financial management within the firm.

Prerequisites: FIN 310

Credits: 3

FIN 410: Case Studies in Corporate Finance

Emphasizes the case study approach to intermediate financial management (corporate finance). Includes the following topics: capital budgeting, corporate governance, mergers, capital structure, dividend policy and short-term financial management.

Prerequisites: FIN 320 and FIN 330

Credits: 3

MIS 301 (formerly ITE 302): Introduction to Management Information Systems

This course is an examination of the integration of computing technologies, systems analysis, system design practices, and management criteria in the design of large-scale information management and decision-support systems, includes case studies and computing lab. This course also examines how managerial and analytic functions in public and private organizations can be performed via various computer-based applications, and provides in-depth coverage of selected decision support package.

Prerequisites: 45 credits

Credits: 3

MGT 201: Principles of Management

This course focuses on the concepts and methods of managing an organization. The overall course objective is to identify, apply, and evaluate techniques for structuring and resolving managerial problems in public and private organizations. Topics include: culture and change; strategic planning and implementation; organization structure; human resource management; groups, teams and motivation; leadership; and operational management.

Prerequisites: 21 credits

Credits: 3

MGT 301: Organizational Behavior

This course takes an in-depth look at human behavior in organizations. Incorporating current management theory and research, the course looks into the factors that influence individual and group performance. Topics may include perception, personality, attitudes, values, motivation, decision making, leaderships, power and politics, conflict and negotiation, groups and culture.

Prerequisites: MGT 201

Credits: 3

MGT 302: Human Resource Management

The purpose of the course is to introduce students to HRM and its key concepts, understanding the main functions and responsibilities of the HR Manager. The course examines and places emphasis on recruitment, selection, training, compensation and evaluation. It also discusses

gender and diversity issues in workplaces. This course is designed to help students understand the organizational view of HRM. Prerequisites: MGT 201

Credits: 3

MGT 360: International Management

This course is an introduction to international management. Building on what students learned in Principles of Management, students will learn how to manage a business within an international setting, coping with the attendant organizational and environmental complexities, and exploiting these for the strategic advantage of the firm. Prerequisite: MGT 201

Credits: 3

MGT 380: Project Management

This course examines the concepts and techniques of managing projects in service and manufacturing settings. Topics may include project selection and evaluation, dynamics, motivation and evaluation of team members, scheduling, budgeting and closure.

Prerequisites: 75 credits, business major/ minor/ concentration Credits: 3

MGT 402: Entrepreneurship

Entrepreneurship focuses on the creation of new ventures: the people, the process and the dynamics. Topics include identifying and evaluating opportunities, success and failure factors, attitudes and characteristics of entrepreneurs, stand-alone and internal corporate ventures, and local and global issues in entrepreneurship. Students can expect to develop a viable business plan in the course.

Prerequisites: 75 credits

Credits: 3

MGT 403: Operations and Supply Chain Management

This course focuses on the theory, tools and techniques associated with the planning, design, control and improvement of business operations. Key overarching themes that are addressed in the course relate to productivity, quality and logistics management. Topics include operations strategy, product and service design, process design, job design and work organization, capacity planning and control, inventory management, supply chain management, lean operations and quality management.

Prerequisites: 75 credits, business major/ minor/ concentration Credits: 3

MGT 404: Strategic Management

This course shall introduce students to the process of strategic thinking and managerial processes through the use of case study analysis and industry evaluations.

Prerequisites: 90 credits, business Major or Minor Credits: 3

MGT 401: Production Operations Management (POM)

This course provides an introduction to the concepts, principles, problems and practices of operations management. Emphasis is on managerial processes for effective operations in both goods-producing and service-rendering organization. Topics include operations strategy, process design, capacity planning, facilities location and design, forecasting, production

scheduling, inventory control, quality assurance, and project management. The topics are integrated using a systems model of the operations for an organization.

Prerequisite: BUS 303 and ACC 222

Credits: 3

MGT 407: Leadership

This course builds on MGT 201 by focusing on the necessary skills and abilities of the successful leader and manager and the appropriate motivational techniques they use to achieve high performance levels. Students are not only introduced to these success factors, but are challenged to both assess and develop their own leadership skills throughout the course.

Prerequisites: 75 credits, business major/ minor/ concentration Credits: 3

MKT 301: Principles of Marketing

This course is an introduction to the concept of marketing and its impact in both society and individual businesses. The course begins with considering marketing from a broad, societal perspective and a focus is put on the concepts of corporate social responsibility and marketing ethics. From there, an organizational focus is stressed and topics include: marketing planning, creating and managing brands, segmentation, product distribution, pricing strategies and an exploration of creating customer value. Also considered is a study of consumer behavior and the factors that influence consumer decisions.

Prerequisites: 30 credits

Credits: 3

MKT 350: Consumer Behavior

This course deals with consumer-buyer decision processes, including models of individual and group aggregate behavior. Emphasis is placed on consumer decision-making, buyer satisfaction, and the influence of perception, learning, and groups. Basic implications are drawn for marketing strategy.

Prerequisites: MKT 301

Credits: 3

Additional Business Elective Courses

ACC 240: Accounting Information Systems

This course is designed to introduce different accounting information systems to business students and all interested students. In today's world, all businesses and organizations use various types of accounting information systems. The course will teach overall accounting/finance related data/information flows and how these computerized accounting systems are used to manage and analyze these data.

Prerequisite: ACC221 Credits: 3

ECO 210: Introduction to Economics

This course is designed as an introductory economics course for students who want to understand the essentials of economics. It aims to teach the basic concepts and analytical tools of economics as well as economic logic in order to help students to understand the economic issues and events occurring around them. The course covers the basics of micro and macroeconomics. By the end of the class, students will gain a basic understanding of the main principles of economics, such as: how companies operate, how markets work, GDP

and economic growth, indicators of economic performance, how government policies affect markets and economic performance, why prices go up and inflation rises, why recession and unemployment occur, and comparative advantage and trade.

Prerequisites: 15 credits

Credits: 3

ENT 302: Creativity and Innovation

This course is designed to introduce students to creativity and innovation in a variety of domains with an emphasis on practical application. Students will develop their own creative and innovative capacities and study the practices of successful innovation leaders and organizations. Additionally, students will learn how to establish structures and processes for others in order to create more innovative environments. Topics include the design thinking methodology, tools for individual and group creativity and problem-solving, analyzing and evaluating trends in innovation across multiple disciplines, and creating an innovative organizational culture.

Prerequisite: 60 credits

Credits: 3

FIN 201: Introduction to Financial Markets

The course aims to develop students' understanding of the basics of finance and workings of financial markets. The course consists of definitions of important financial concepts, valuation of financial assets, and price determination in the financial markets. It utilizes qualitative and quantitative information in introducing financial markets to students. This course aims to develop students' understanding of the basic principles of financial markets and provides an introduction to how assets are valued and traded in those markets. Topics covered may include stocks markets, bonds markets, exchange rate markets, commodities markets, and digital currency markets. The course instructor may cover some of these topics in more detail than other topics according to student interest.

Prerequisites: MTH 101, ENG 102

Credits 3

MGT 299: Small Business Management

This course is open to business and non-business majors. This course provides theoretical and practical knowledge to set up and manage a small business. Key topics include characteristics and forms of small business; the key decisions required of the entrepreneur/manager, opportunity identification, planning, marketing, team building and location decisions. It provides a comprehensive coverage of critical small business issues; numerous real-world examples to help students understand how to apply the business management concepts presented in the text, and incorporate material to help them explore the small business issues in real-world.

Prerequisites: 30 credits

Credits: 3

The Department of Engineering

ENGR 230: Engineering Drawing

This course provides graphical communication as a tool for documenting the results of engineering design. This is achieved through the ability to visualize and understand spatial relationships, and the competence to select and use appropriate graphical methods for representing design concepts. Topics include orthographic projection (multi-view and auxiliary) and pictorial drawing. Students combine the practice of hand sketching along with computer-based solid modeling (AutoCAD) to produce a parametric design.

Prerequisite: None Credits: 3

ENGR 231: Fabrication Shop (Team-based Problem Solving)

This course covers the following: Health and Safety documentation (RAMS), Sustainability and Environment, Work Ethic, Problem definition, Effective teamwork, Effective team management, Concept generation, and reverse engineering, 3D modeling and multi-views, Assembly, dimensioning and tolerance, Design for Manufacturing (DFM), Design for Assembly (DFA) and Design for Environment (DFE). This course is to let the students acquire knowledge to find actual solutions for real design and manufacturing of design-and-build projects in laboratories appropriate to industry requirements. Also, written communications and teamwork are addressed.

Prerequisites: None Credits: 2

ENGR 244: Engineering Computing and Numerical Analysis

This course covers the knowledge and numerical methods required to solve practical and Mathematical problems that are frequently encountered in engineering applications. The course introduces MATLAB programming fundamentals, including data structures, symbolic mathematics, logical functions and selection structure, 2D, 3D and dynamic plotting, user-defined functions, user-controlled inputs and output, and algorithms. The course includes modeling, numerical error analysis, roots of equations, and optimization principles. Methods of numerical differentiation (ordinary and higher order differential equations) and integration along with built-in MATLAB functions are studied. Numerical methods covered include solving single, nonlinear equations, fixed-point iteration, Gaussian elimination, and linear and nonlinear regression analysis in addition to the golden ratio, golden section, and gradients methods. MATLAB software will be introduced in the course and used as a tool to solve problems.

Prerequisite: MTH 331, MTH 332

Credits: 3

ENGR 248: Engineering Geology

The course mainly covers the importance of engineering geology, maps, weathering and soil-forming processes, rock mechanics, soil mechanics, mass wasting, groundwater, fluvial processes, land subsidence, engineering geology of coastal regions, and earthquakes, geophysical techniques, and geological hazards. It also covers the

engineering properties of earth materials and their effects on civil engineering work. Then it includes the geotechnical evaluation of soil and rocks, the mitigation of geological hazards like earthquakes, landslides, and resource evaluation.

Prerequisite: CHEM 232 + CHEML Credits: 3

ENGR 313: Measurements Laboratory

Measurement Laboratory covers measurement fundamentals, the operation principles of various sensors, data collection, processing and analysis, error analysis and estimation, and technical report generation. This class provides an introduction to the interpretation of measurement standards like those from the International Standards Organization (ISO) and the American Society for Testing and Materials (ASTM). Other topics include an introduction to signal flow feedback and control basics, set up and operation of data acquisition systems, temperature, pressure, mass flow rate measurements, stress-strain, and hardness measurements, data acquisition, analog to digital conversion, electromagnetic sensors, and measurements, and mass, density, volumetric and dimensional measurements.

Prerequisites: ENGR 390; ENGR 356

Credits: 2

ENGR 344: Mechanics I – Engineering Statics

The course focuses on the importance of engineering statics and deals with its fundamentals. Topics include forces, moment, and equilibrium of forces in two dimensions, equilibrium of forces in three dimensions, free body diagrams, equilibrium of rigid bodies, and their applications. Analysis of trusses, the centroid of area, internal forces, and area moment of inertia are also included.

Prerequisite: PHYS 232, PHYSL 232

Credits: 3

ENGR 348: Mechanics II – Engineering Dynamics

This course covers the fundamental concepts of kinematics and kinetics with application to the motion of particles and plane motion of rigid bodies. Topics include the rectilinear and curvilinear motion of particles. Newton's second law, impulse and momentum methods; impact dynamics of systems of particles; kinematics of rigid bodies; plane motion of rigid bodies; forces and accelerations; and energy and momentum method.

Prerequisite: ENGR 344, MTH 340

Credits: 3

ENGR 352: Thermodynamics

The course covers an introduction to thermal sciences with an emphasis on the first and second laws of thermodynamics, energy and energy transfer, energy conversion efficiencies, properties of pure substances, real gases and the ideal-gas equation of state, energy analysis of closed systems, conservation of mass, irreversibility, and availability. Moreover, thermodynamic properties and cycles and entropy production, entropy

change of liquid, solid and ideal gas, ideal gas processes, steady state, steady flow processes, power and refrigeration cycles. The Carnot cycle is introduced along with several cyclic devices or systems which include heat engines, refrigerators, heat pumps, and air conditioners.

Prerequisite: PHYS 232, PHYSL 232

Credits: 3

ENGR 354: Materials Science

This course covers the processing, structure, properties, and performance of engineering materials. The effects are investigated of atomic bonding, crystalline structure, imperfections, dislocations, and strengthening of mechanical properties and failure. Phase diagrams, phase transformations, and metal alloying are discussed. The discussions of nonmetallic materials include ceramics, polymers, and composites structure, properties, and applications. Material properties discussed include electrical, thermal, magnetic, optical, and corrosion properties.

Prerequisite: CHEM 232, CHEML 232

Credits: 3

ENGR 356: Fluids

Covers the fundamentals of fluid mechanics, including the following topics: concepts of fluid mechanics, fluid properties (static and dynamic), fluid flow measurements, dimensional analysis, and hydraulic similitude, dynamics of viscous fluid flow in closed pipe, dynamics of fluid flow in open channel flow. In addition to that, the course includes a Laboratory component to illustrate the concepts learned in the course.

Prerequisite: ENGR 344, MTH 233

Credits: 4

ENGR 358: Mechanics of Materials

This course covers normal stress and strain in bars, Hooke's Law for linear elastic materials, linear thermal expansion, Poisson's ratio, safety factor, non-uniform normal stress and strain, static indeterminate normal stress and strain, shear stress and strain in pins and plates, the polar moment of inertia, shear stress and strain in torsional shafts, non-uniform stress and strain in shafts, static indeterminate stress and strain in shafts, stress elements and stress tensor, plane strain, and plane stress conditions, stress transformation equations, principal stresses, Mohr's circle, beam shear and moment diagrams, beam curvature, the moment of inertia (2nd moment of area), beam stress due to bending (flexure formula), beam shear stress, strain and deflection, static indeterminate beams, spherical and cylindrical pressure vessels, column buckling, and combined stresses material.

Prerequisite: ENGR 344

Credits: 3

ENGR 366: Applied Electronics

This course covers basic signal, spectrum, and amplifier concepts for analog electronic circuits. The students will acquire the knowledge to perform DC and AC analyses of

electronic devices in addition to learning the principles of PN junction, diodes (including Zener diode, light-emitting diode, etc.), and transistors. It includes large and small signal analysis of bipolar junction transistors (BJT) and field-effect transistor (FET), the frequency response of the amplifiers, constant current sources, differential amplifier, power amplifiers, feedback amplifiers, inverting and non-inverting operational amplifiers (Op-AMP), and its applications (linear and non-linear applications), Active filters, oscillators, and multivibrators circuits, in addition to studying and practicing computer simulations of electric circuits. Moreover, case studies and applications of electronics are provided and discussed.

Prerequisite: ENGR 390

Credits: 3

ENGR 370: Surveying

The course includes measurement of distances and angles, theory of errors, the study of leveling, traversing, road surveying, earthwork computation, and boundary surveys. It also involves practicing the usage of tapes, levels, theodolites, total stations, and PC-based methodologies.

Prerequisites: MTH 233

Credits: 2

ENGR 372: Transportation Engineering and Design

Highway functions, design controls and criteria, elements of design, cross-section elements, local roads and streets, at-grade intersections, grade separation and interchanges, highway capacity analysis, and introduction to pavement management.

Prerequisites: Junior Standing. Credits: 3

ENGR 373: Materials of Construction

The course focuses on three main parts and these are: introduction to materials engineering, characteristics of materials used in civil and construction engineering, and laboratory methods for the evaluation of materials such as tensile, compressive and toughness tests. It presents the characteristics of the primary material types used in civil and construction engineering such as steel, aluminum, concrete, aggregate, asphalt, wood/timber and composites. Furthermore, construction estimating, projects planning and critical path methods for successful work planning schedule and achieve the qualified level of construction within the allocated time is also included. Finally, an overview of various test procedures used with each construction material based on standards organizations such as the American Society for Testing and Materials (ASTM) and the American Association of State Highway and Transportation Officials (AASHTO) is also included.

Prerequisites CHEM 232, CHEML 232

Credits: 4

ENGR 390: Circuits

This course covers the fundamental principles of circuit theory commonly used in engineering research and science applications. Techniques and principles of electrical circuit analysis include basic concepts such as voltage, current, resistance, conductance, impedance, power, energy, etc., along with Ohm's, and Kirchhoff's laws. Furthermore, the taught circuit analysis techniques include Nodal and Mesh Analysis, superposition, and source transformation, Thevenin and Norton's Theorems, and maximum power transfer. Also, basic electric circuit analysis techniques for series, parallel, series-parallel for resistive circuits, transient and steady-state responses of RLC circuits; circuits with DC and sinusoidal sources, steady-state power, and operational amplifiers, balanced and unbalanced three phase circuits, single phase and three phase transformers. The AC part of the course includes sinusoids and phasor analysis, elements of AC circuits, impedance and admittance, analysis of AC circuits, and power calculation in AC circuits.

Prerequisite: PHYS 233, PHYSL 233

Credits: 4

ENGR 411: Computer-aided Design and Fabrication

This course extends the concepts learned in Engineering Drawing. Topics introduced include 3-D design and automated fabrication including computer-controlled machining. Students complete a design project that requires rapid prototyping.

Prerequisite: ENGR 230

Credits: 3

ENGR 413: Manufacturing Systems

This course introduces the fundamentals of manufacturing processes including manufacturing of metals, plastics, ceramics, and composites, casting, forming, forging, rolling, extrusion, drawing, machining, and cutting tools, abrasive machining, computerized numerical control (CNC) machining, fusion welding, solid state welding, brazing, soldering, adhesive bonding, surface treatment, finishing, and additive manufacturing. Other topics include assembly and joining processes, assembly of integrated electronic circuits, quality control, and manufacturing process selection.

Prerequisites: ENGR 231, ENGR 354

Credits: 3

ENGR 414: Numerical Methods

Covers basic concepts of computational methods; errors, accuracy, and precision; numerical solutions of nonlinear equations; direct and iterative methods for solving systems of linear algebraic equations; numerical differentiation and integration; interpolation, approximation, and curve fitting; numerical solution of ordinary and partial differential equations; and applications of computational methods using computers.

Prerequisites: ENGR 244 and MTH 332

Credits: 3

ENGR 420: Turbomachinery

This course covers the basic equations of fluid mechanics, Euler's theory, working principles, definition and classification of turbomachines, basic components of turbomachines, compressors, pumps and fans, turbines, axial and radial turbomachines, compressible fluids, performance measurement, dynamic similitude, wind turbines, thrust gas turbines, special pumps, and turbines.

Prerequisites: ENGR 352, ENGR 356

Credits: 3

ENGR 425: Energy Storage Systems

This course provides the students with an introduction to the concepts and scientific principles of energy storage systems and provides a broad understanding of the operation of such systems. The course expands across multidisciplinary concepts of thermodynamics, heat transfer, and circuit theory. Techniques and methods of assessing the efficiency and design of energy storage systems are introduced. Both utility-scale and small-scale energy storage are discussed and compared in terms of addressing the intermittency of renewable energy components of modern electricity networks. Topics covered include electrical, chemical, thermal, mechanical, electrochemical, thermochemical, and thermomechanical energy storage systems as well as grid integration issues. A broad range of systems are introduced, discussed, and compared such as capacitive and super-capacitive systems, superconductive magnetic energy storage systems (SMES), hydrogen fuel cell and electrolyzer, compressed air (CAES), flywheel (FES), pumped hydro (PHS), heat pump, flow batteries, lead acid, and lithium-ion. Moreover, the course covers topics such as technology demand and costs and advanced energy storage concepts.

Prerequisites: ENGR 354

Credits: 3

ENGR 430: Engineering Hydrology

Students apply prior knowledge and knowledge gained in this course to investigate water resources, hydrologic cycle, water use, and water budget components in watershed systems. Students will study the laws governing the occurrence and movement of water flux. Students will characterize the hydrological conditions, and interpret and divide the flow system. This course covers the hydrologic cycle and the water budget components such as precipitation, infiltration, evaporation, transpiration, and surface runoff. In addition, this course covers the hydrological processes of groundwater flow, open-channel flow, streamflow hydrograph analysis, streamflow routing, water supply and sewerage, and the design of water distribution systems.

Prerequisites: ENGR 356

Credits: 3

ENGR 432: Component Design

This course covers deflection and stiffness of beams, press and shrink-fits, static failure theories, fatigue in metals, stress-life method, fatigue failure criteria, screws and threaded fasteners, bolts and gasketed joints, shafts and shaft components, and design of welded joints.

Prerequisites: ENGR 358

Credits: 3

ENGR 433: Machine Design

This course covers mechanical springs, design of clutches, brakes and couplings, power transmission equipment (shafts, axles, and spindles); flexible mechanical elements (flat and V-belts, wire ropes, and chains); rolling and journal bearings; spur, helical, bevel and worm gears; and utilization of commercial computer-aided design software. A term project is required.

Prerequisites: ENGR 432

Credits: 3

ENGR 444: Engineering Project management

This course provides engineering students with a comprehensive understanding of engineering economics and efficiently managing projects in terms of planning, optimizing, and management to produce services, products, or development projects. This course also includes the key economic concepts associated with the justification and evaluation of engineering projects. Students will gain an understanding of essential principles associated with engineering economics and project management and how to effectively apply these principles in engineering projects and business. The engineering project management course will prepare students to successfully manage, plan, lead, develop engineering projects, and they will practice and gain experience in analyzing real-life examples, and case studies. This course includes cost management, interest rate and rate of return analysis, breakeven, sensitivity, and payback analysis, effects of inflation, developing the work breakdown structure, feasibility study, engineering estimation and costing, tendering and bill of quantities, creating a schedule, budget, and project plan, introduction to risk, and Microsoft Project.

Prerequisite: STT 342

Credits: 3

ENGR 452: Transport Phenomena

The course covers the concepts and principles of transport phenomena and focuses on heat transfer. The modes of heat transfer are studied in detail which are conduction, convection, and radiation. The course starts with steady-state conduction in cartesian and cylindrical coordinates and then the numerical solution for transient states. In conduction, the students learn the analytical equations of heat conduction, 1-D spatial variation Fourier-Biot equation, 1-D spatial variation, thermal circuits, 2-D spatial variation problems (steady state), and lumped problems – transient and spatial variations

– transient - analytical approximations. In addition to heat transfer in extended surfaces and fins. Also, numerical heat transfer models are solved using MATLAB. Convection principles discussed include analytical models for external and internal flow, laminar, turbulent, and mixed regions, in addition to free and forced convection along with the external flow over flat plates and cylinders and internal flow through pipes. Radiation principles are introduced (such as terminology, gray surface approximation, blackbody, and gray surface exchange), in addition to view factors and thermal circuits. The course

also provides an introduction to the principles, design, and maintenance of heat exchangers, and also introduces mass transfer and overall heat transfer coefficients.

Prerequisite: ENGR 356, MTH332Credits: 3

ENGR 453: Application of Thermodynamics

This course covers the following topics: Otto cycle, Diesel cycle, Brayton cycle with regeneration, intercooling and reheating, Rankine cycle, Rankine cycle with reheating, regeneration i.e. feed water heaters, refrigeration cycles: vapor compression and absorption cycles, heating with humidification, dehumidification by cooling, and combustion.

Prerequisites: ENGR 352

Credits: 3

ENGR 454: Process Engineering

This course will discuss in detail the various processes used to treat raw natural gas and clean them for midstream delivery. It will first introduce natural gas processing and discusses the compression, sweetening, and dehydration plants. Furthermore, this course will cover petroleum refinery processes and operations required to convert crude oil into valuable products. Finally, emphasis will be placed on developing a basic understanding of petroleum chemistry with applications to process design & ramp; analysis of typical refinery operations.

Prerequisites: ENGR 455

Credits: 3

ENGR 455: Introduction to Petroleum Engineering

This is an introductory course to petroleum engineering, which covers exploration and production. Topics include drilling, nature of oil and gas reservoirs, reservoir mechanics, formation evaluation, transportation and refining, marketing, and improved oil recovery.

Prerequisite: ENGR 356

Credits: 3

ENGR 456: Refrigeration Technology

This course discusses refrigeration processes, including vapor-compression refrigeration, absorption refrigeration, cryogenic processes, and heat pumps, as well as air conditioning processes, with a focus on capturing the thermodynamic characteristics of these processes and their efficiency based on ton formulation of the second law of thermodynamics in terms of exergy. The required thermodynamic concepts, concerning exergy and the thermodynamic properties of mixtures, in particular of moist air, are recapitulated and further developed.

Prerequisites: ENGR 352 and ENGR 356

Credits: 3

ENGR 457: Renewable Energy

This course covers the following topics: renewable energy resources, solar energy: PV and thermal, hydropower systems, wind power systems, biomass energy, geothermal energy, hybrid systems, and fuel cell.

Prerequisites: ENGR 461

Credits: 3

ENGR 459: Molecular Engineering

Introduction to the molecular theory of fluids oriented toward applications in energy and mechanical engineering. The major aspects of molecular methods are discussed, with a focus on molecular modeling (intermolecular interactions and effective pair potentials), molecular dynamics and Monte Carlo simulation, and molecular equations of state (from the virial equation to the SAFT family of equations of state). Basics of statistical mechanics are included as a theoretical foundation, relating microscopic phenomena, at the molecular level, to macroscopic properties from phenomenological thermodynamics including vapor-liquid equilibrium data.

Prerequisites: ENGR 352.

Credits: 3

ENGR 461: System Dynamics and Control

This course covers the knowledge and methods of modeling and controlling linear, time-invariant systems. The modeling will be carried out through differential equations, which are solved through Laplace Transform (and inverse Laplace transform), and frequency domain approaches. Also, block diagram representation, action techniques, and state space representation are introduced. The concepts taught in this course introduce students to the time response of first and second-order systems, stability analysis, feedback systems, time domain response characteristics, root locus techniques, and controlled design via root locus. Moreover, numerical simulations using MATLAB Simulink along with lab experiments and demonstrations are provided. The students are introduced to control specifications and PID control.

Prerequisites: ENGR 348

Credits: 3

ENGR 473: Structural Analysis

This course introduces the students to the basic techniques for analyzing common structural elements, including beams, trusses, and frames, determination of internal forces, illustration of shear and moment diagrams, and calculation of deflection and influence lines. The course covers methods to analyze both statically determinate and indeterminate structural systems including force and displacement methods. Prerequisites: ENGR 358, ENGR 348

Credits: 3

ENGR 474: Steel Design

This course provides an understanding of fundamental concepts in the analysis and design of steel structural members and systems according to the Steel Construction

Manual. Topics include tension members, compression members, steel building frames, continuous structures, beams, bolted connections, and welded connections.

Prerequisites: ENGR 473

Credits: 3

ENGR 475: Soil Mechanics

The course mainly covers the importance of engineering geology, maps, weathering and soil-forming processes, rock mechanics, soil mechanics, mass wasting, groundwater, fluvial processes, land subsidence, engineering geology of coastal regions, and earthquakes, geophysical techniques, and geological hazards. It covers the engineering properties of earth materials and their effects on civil engineering work. Then it covers the geotechnical evaluation of soil and rocks, the mitigation of geological hazards like earthquakes, and landslides, and resource evaluation. Finally, it covers the field trip and lab visits to explain the physical and chemical properties, which help identify the mineral. Prerequisites: ENGR 248

Credits: 3

ENGR 476: Concrete Design I

This course provides an understanding of fundamental concepts in the analysis, design, and detailing of reinforced concrete structural members and systems according to the ACI Building Code Requirements. Topics include the behavior of reinforcing steel and concrete; the design for ultimate limit states under flexure, shear, and combined flexure and axial load, considering serviceability (cracking and deflections), economy, and constructability. Applications include beams, slabs, columns, walls, and retaining walls. Topics include concrete composition/mixture and mechanical properties of hardened concrete/steel reinforcement as necessary to explore the behavior and design of various members (e.g. single, T-beams, slab floor systems) using the ACI Building Code.

Prerequisites: ENGR 475, ENGR 373

Credits: 3

ENGR 477: Foundation Design

This course focuses on the application of the basic principles of soil mechanics to the design of foundations and earth retaining structures. Shallow footings, combined foundations, mat foundations, pile foundations, and drilled shaft foundations are included. Determination and understanding of the bearing capacity of the soil are included for shallow foundations. A significant set of examples supported by useful information on soil settlement and bearing capacity calculations are considered to select the right type of foundation.

Prerequisites: ENGR 476

Credits: 3

ENGR 478: Fuel Cell Technology

Fuel cell technology is an emerging technology for electric power generation for stationary, mobile, and portable power applications. A fuel cell, the heart of this technology, is an electrochemical device in which hydrogen and oxygen react in the presence of a catalyst and produce electricity, heat, and water. The major advantages of

fuel cell systems are higher energy conversion efficiencies, low emissions, and negligible noise. In this course, after fuel cell technology basics and operating principles, fuel cell performance will be briefly described from energy and thermodynamic viewpoints. Subsequently, the following major types of fuel cells will be discussed: polymer electrolyte membrane fuel cell (PEMFC), direct methanol Fuel Cells (DMFC), Alkaline Fuel Cells (AFC), phosphoric acid fuel cell (PAFC), molten carbonate fuel cell (MCFC) and solid oxide fuel cell (SOFC). The emphasis will be the performance behavior, analysis, and modeling. Subsequently, the balance of the fuel cell power plant, thermal system design, and analysis will be discussed as well as its effect on power generation. Finally, the components needed, issues related, and pertinent analysis will be covered to deliver electric power generated from the fuel cell.

Prerequisites: ENGR 352

Credits: 3

ENGR 479: Electromechanical Conversion

This course covers the operating principle of DC generators, self-excited shunt, three-phase alternators, single-phase transformers, three-phase transformers, and instrument transformers.

Prerequisites: ENGR 352 and ENGR 390.

Credits: 3

ENGR 480: Engineering Vibration

This course covers systems with single and multiple degrees of freedom, damped and undamped free vibrations, and forced vibration response due to harmonic inputs. It includes modeling of multi-degree-of-freedom mechanical systems via Lagrange's equations, modal summation method for response predictions, vibration isolation, and vibration measuring instruments, tuned mass vibration absorber, viscous, Coulomb, and hysteresis damping, and vibration of continuous systems. The course introduces experimental modal analysis.

Prerequisites: ENGR 348

Credits: 3

ENGR 481: Power Electronics

This course covers: Switch realization, switching losses, controlled rectifiers, DC converters, output filter design, design of diode rectifier, design of converters and chopper circuits, and control and analysis of choppers.

Prerequisites: ENGR 352 and ENGR 390.

Credits: 3

ENGR 482: Power Systems Engineering

This course covers the mechanical design of overhead lines and underground cables, the performance of transmission lines, power system stability, power distribution systems, steam power plants, gas turbine power plants, and nuclear power plants.

Prerequisites: ENGR 352 and ENGR 390.

Credits: 3

ENGR 483: Introduction to Robotics

This course provides the students with introductory knowledge of robotics, robot coordinate systems, and direct and inverse kinematics. Introduces manipulator dynamics and force control and compliance. Includes robot sensory devices and control strategies, analog to digital and digital to analog signal conversion, and the requirement of digital control. The course involves a term project that involves the design and possible fabrication of a basic robot with two or three degrees of freedom.

Prerequisites: ENGR 461

Credits: 3

ENGR 484: Engineering Laboratory (Civil)

This course is an engineering laboratory course that introduces the plan fundamentals for students in order to work in teams using knowledge acquired in earlier courses to solve real design, manufacturing, and operational problems relevant to the industry including a design-and-build project. Oral and written communications with participating companies as well as teamwork are also addressed. Other topics include patents, standards, product liability, safety, ethics, and design for manufacturing and testing also will be introduced in the course and used as tools to understand the real properties of various types of materials (focus more on construction materials). It focuses on construction materials, such as soils, rocks, concrete, mortar, cement, clay brick, and concrete blocks, some mechanical testing experiments will be introduced also in this course. Students will conduct laboratory experiments such as soil classifications, soil compaction tests, soil permeability, consolidation test, setting-times of cement, compression test for cement mortar, slump tests, compression test, tensile test, and flexural strength of concrete.

Prerequisite: STT 342

Credits: 3

ENGR 484: Engineering Laboratory (Mechanical/Energy)

In this laboratory course students use knowledge acquired in earlier courses to solve real design, manufacturing, and operational problems relevant to industry including a design-and-build project. Oral and written communications as-well-as teamwork are addressed. The course covers the following topics through lectures and experiments: health and safety, energy loss in pipes and fitting, flow measurements, flow of a uniform current around different shapes, heat transfer, analysis of experimental data, flow systems in water channel, tensile, hardness and heat treatment, and flow, temperature and pressure sensors.

Prerequisite: ENGR 313, STT 342

Credits: 3

ENGR 485: Hydraulic Structures

Hydraulic structures are structures in contact with water. Hydraulic structures are required in all aspects of water engineering such as flood control, water management, irrigation and drainage, water supply, environmental use, hydropower, water-quality management, and transportation navigation. To ensure that a hydraulic structure

functions as required, equations of continuity, momentum, and energy principles are applied to the design. The hydraulic structure design is a useful principle to describe the mechanical behavior of construction materials such as concrete, steel, and soils. Students will learn Dam Engineering (Embankment dam engineering, Seepage analysis, Stability, and stress), Concrete dam engineering, Gravity dam analysis, Dam outlet works (Freeboard, Sedimentation in reservoirs, Spillways, Bottom outlets), Energy dissipation (Energy dissipation on spillways, Stilling basins, Energy dissipation at bottom outlets),

Gates

and valves, Culverts, Weirs, hydraulic jumps, bridges and dips, Hydroelectric energy, Turbine, Pumping stations, and Hydraulic models.

Prerequisite: ENGR 430

Credit: 3

ENGR 486: Concrete Design II

The Concrete Design course is a continuation of Concrete Design 1 which introduces the other more advanced chapters of the assigned textbook. This course covers the fundamentals of structural concrete design. The topics included in this course include the design of building frames and continuous structures, two-way slabs, short columns subjected to both axial and bending loading, slender columns, concrete structures subjected to torsion, reinforced concrete masonry, girders, bond, and development lengths.

Prerequisite: ENGR 476

Credit: 3

ENGR 488: Special Problems

Individual solutions to selected problems in engineering are conducted under the direct supervision of a faculty member.

Prerequisite: senior standing. Credit: 3

ENGR 489: Selected Topics

Explores a theoretical or practical topic proposed by the faculty beyond what is offered in existing courses. Can be repeated for credit.

Prerequisite: Senior standing. Credit: 3

ENGR 490: Internship in Engineering

Students are assigned to a variety of operating companies where they will work on short-duration projects allowing them to apply the acquired knowledge from the University, gain practical experience, and become acquainted with the industry's working environment. Each student is required to submit a written report and deliver a presentation on his work assignment.

Prerequisite: Senior standing (to be taken alone). Credit: 3

ENGR 491: Design I (Energy/Mechanical)

This course is the first part of a two-course capstone design project for engineering students in Bachelor of Mechanical or Energy programs. Design I is the first part of the Engineering Capstone project, followed by Design II. Students apply their theoretical and practical knowledge from their science engineering courses to solve a relevant, real-world problem in the field of Mechanical or Energy Engineering. The student design process is enabled as they walk through the steps covered by the following topics of the course content: design process overview, problem definition and identification project concept statement, design objectives and constraints, teamwork, project planning, design concept generation, design concept selection, Pugh chart, Gantt chart, quad chart, design for X (DFX, where X could stand for functionality, safety, reliability, serviceability, environment, manufacturing, cost, quality, etc.), manufacturing process and material selection, failure mode and effects analysis (FMEA), engineering ethical considerations, intellectual property and patents, and entrepreneurship. Alternative design concepts are evaluated and analyzed, and the preferred concept is fully defined with assembly and component drawings and a bill of materials. In addition, the course helps the students to develop their teamwork and individual skills in writing discussions, public speaking, and presentation techniques.

Prerequisites: Energy (ENG 203, ENGR 358, ENGR 231, Senior Standing), Mechanical (ENG 203, Senior Standing)

Credits: 3

ENGR 491: Design I (Civil/Construction)

This course covers the first design course for engineering students in the Bachelor of Civil and Construction Engineering programs. It is the introductory part for Design II, the Engineering Capstone project. It combines students' theoretical and practical knowledge gained in advanced engineering and basic science courses to study, analyze and understand design techniques and approaches used in proven and published research in the field of Civil/Construction Engineering. This course helps students develop a broad engineering foundation in their field. Students work in groups to select and work on a recently published research topic which they will use and build upon for their Design II. In addition, the course helps the students to develop their teamwork and individual skills in writing discussions, public speaking, and presentation techniques.

Prerequisites: ENG 203, Senior Standing, ENGR 231 Credits: 3

ENGR 492: Design II (Energy/Mechanical)

In this course students refine their embodiment design from Design I into a detailed design, then they fabricate and test their prototype. The topics covered to facilitate the detailed design and fabrication include the following: an overview of the systematic process of engineering design, design case studies, CAE analysis tool, global, societal, sustainability, environmental, and ethical aspects/issues, design communication, product liability, engineering ethical considerations, intellectual property, patents, entrepreneurship, cost evaluation, and estimates. In addition, students communicate their progress and final achievements through oral presentations and written reports.

Prerequisites: Energy (ENGR 491, ENGR 366, ENGR 444), Mechanical (ENGR 413, ENGR 491, ENGR 444)

Credits: 2

ENGR 492: Design II (Civil/Construction)

This is the second part of a two-course capstone design project for engineering students in Bachelor of Civil or Construction programs. It combines students' theoretical and practical knowledge and skills gained in Design I and advanced engineering courses in a practical application. Students continue their research topic from Design I, applying their understanding and theoretical knowledge of it to design and simulate the real-world issues of the engineering projects. Building on the results from Design I, students complete the following steps: refinement of simulated issues, design optimization, fabrication, testing, and evaluation. The final project includes scientific research, an oral presentation, and a written capstone dissertation.

Prerequisites: ENGR 491, ENGR 484, ENGR 444

Credits: 2

ENGR 493: Highway Engineering and Design

Lectures in this course are delivered with the use of both a whiteboard and the material of each chapter of the textbook shown on a screen. The lectures will be uploaded to Moodle and/or Google classroom. Students are expected to print the slides which will serve as the backbone for their course notes. Example problems will be solved during the lectures and students are expected to participate in the solution process. To facilitate the learning process, students are expected to bring their textbooks to lectures as they contain relevant data tables, plots, and equations. Homework problems will be assigned and posted on the blackboard with corresponding solutions. Students are expected to practice solving problems out of the textbook on their own.

Prerequisites: ENGR 370

Credits: 3

The Department of English

Core Requirements

ENG 101: Argumentation

In this course, students will develop their ability to recognize, analyze, invent, and present arguments. As students read and respond to texts, they will come to understand, in their own writing and thinking, avoid logical fallacies. Students will also learn and develop the fundamentals of public speaking, including clear annunciation, debate, pacing, and posture, among others. Through this course students will receive an introduction to academic citation and formatting. Each of the requisite composition courses, through written and oral assessments, measures each student's continued progress as an academic writer and thinker.

Prerequisite: R 100 and W 100 or direct entry

Credits: 3

ENG 102: Critical Reading and Writing

This course aims to equip students with the ability to read and write from a critical stance. Using their understanding of argumentation, students will begin to see logical fallacies as tools they can control, not just as argumentative shortcomings. They will continue developing their skills of literary analysis, becoming readers of what resides between the lines of a text. Each of the requisite composition courses also gives additional focus to each student's continued progress with oral and written expression of ideas.

Prerequisite: ENG 101

Credits: 3

ENG 203: Research & Project-Writing

This course will develop students' skills in writing papers of length that incorporate and showcase research. Students will learn to conduct, assess, and document their research. This will enable students to sustain an argument, using multiple sources, over an extensive number of pages. Finally, students will develop skills requisite to present research in various situations. Each of the requisite composition courses also gives additional focus to each student's continued progress with oral and written expression of ideas.

Prerequisites: ENG 102

Credits: 3

Humanities Core Options and Lower-level Electives

ART 102: Love Poetry

This course is a survey of poetry that focuses on various aspects/twists of love. Examining the literary aspects of each poem, the course engages us to rely on our experience, ethical positions, and literary judgment in determining whether specific persona is indeed in love, whether they should continue their relationship, whether they need more commitment or less, etc. Love Poetry nurtures your intellectual capabilities to think critically, to understand diverse contexts, to engage with other learners, and to apply knowledge and skills learned through reflection. More specifically, Love Poetry aims to deepen your understanding of "how texts work" — particularly poetical texts — and of how different contexts, audiences,

and interpretive approaches can change "how texts work."

Prerequisite: ENG 102

Credits: 3

ART 104: Drama

This course introduces students to the study and performance of theatrical texts. Students will read a selection of plays, learn about the history of different performance traditions, and develop skills in acting and basic stagecraft. This course may be taken as a Humanities Core Option.

Prerequisite: ENG 101

Credits: 3

ART 105: Art History

An introduction to the history of art, and to ways of studying art and its aesthetic qualities, social significance, and historical development.

Prerequisite: ENG 101

Credits: 3

ART 106: Photography

An introduction to the practice of photography, including camera skills, composing and presenting images, and photographic analysis. May be taken as a Humanities Core Option.

Prerequisite: None Credits: 3

ART 107: Film

This course introduces students to the history of motion pictures from the silent era to the digital present. Students will learn a critical vocabulary and viewing techniques essential to the analysis of film. May be taken as a Humanities Core Option.

Prerequisite: ENG 101

Credits: 3

ART 108: Arabic Calligraphy

The main goal of the course is to teach the basic elements of Arabic calligraphy by mastering the "Ruka, a رُكَاة" style. Students who do not know Arabic will also learn how to write and pronounce the Arabic alphabet.

Prerequisites: None Credits: 3

ART 203: Prose Fiction

In this course, students will investigate what makes prose fiction a distinctive medium of art. We will see how popular discussion of novels and short stories tends to assess them by the standards of other narrative media, like film or television. By contrast, we'll read a number of prose fictions that deliberately aim—through exploiting their verbal medium—to do things that those other media cannot. In the process, we'll address complex philosophical questions like the difference between possible worlds and fictional worlds, whether it makes sense to think of fictional characters as human beings, whether a pun creates two fictional universes or one that contains a contradiction, whether a verbal description of a scene gives us sensory access to the colors of that scene, and so on. Students will use their understanding of these questions to generate arguments about how the medium of prose fiction influences what novels and short stories can do for their readers that other narrative media cannot.

Prerequisite: ENG 102

Credits: 3

LNG 220: Introduction to Language

This course defines language and how it works. Leads students to examine their own beliefs and attitudes about language and provides them with techniques of language analysis. Topics covered include: grammar and appropriate usage, oral vs. written language, formal vs. informal language, standard vs. non-standard languages, language universals, and language typology.

Prerequisites: ENG 101

Credits: 3

ENG 250: Public Speaking

ENG 250 builds on the writing skills acquired in ENG 101, 102, and 203. It strengthens students' reasoning skills and understanding of the various rhetorical strategies available to them in both the writing process and in public speaking. Students are required to practice ethical integration and documentation of sources into speeches. ENG 250 is designed to introduce students to extemporaneous and both planned and documented types of speaking. To this end, students will be required to do research papers and give oral presentations to the class based on their research. This course strongly reinforces the connection between writing and speaking. ENG 250 is designed to help students in all majors become better communicators.

Prerequisites: ENG 101

Credits: 3

HUM 102: Romanticism in the Arts

Romanticism was a phenomenon that transformed the arts - and Western society as a whole - between the late 18th century and the middle of the 19th. Not an organized movement so much as a "current" or "spirit" that infused the culture and society, Romanticism was an attempt to break free from the traditional and classical forms that had dominated art for centuries, and, at the same time a rejection of the rationality of the Enlightenment. In the first half of this course, we will look at the literature, music, and visual art of this period, understanding its formal innovations as well as its often-extravagant subject matter. In the second half we will study the influence of this period on art, music, and literature since that time, looking for modern-day echoes of the "romantic."

Prerequisites: ENG 102

Credits: 3

HUM 201: Narrative and Society

The course looks at how the rise of modernity in Europe and the Middle East starting in the eighteenth century onward, brought with it new ways of understanding and narrating "modern" experiences. The new form of narrative emphasizes logic, order, and the "mundane" realities of daily existence away from earlier forms whose emphasis was on the mythic and the extraordinary. The course examines a variety of literary, political and intellectual texts written in this rising narrative form to shed light on the basic features of the emerging realism associated with it.

Prerequisite: ENG 102

Credits: 3

HUM 202: Gender, Media and Society

Gender, Media and Society is a course intended to appeal to a broad range of students regardless of their major who have a desire to explore, question, challenge and engage themselves and their surroundings. It is an exploration of gender issues in society with a particular focus on the media. It aims to give students a broad understanding of gender, social construction, media representations of men and women (media- articles/literature, photographs, movies, documentaries, advertisements) and the consequences of these representations within the wider society. Students will learn how perceptions of gender and gender roles are socially constructed including beauty, body image and relationships. Students will be encouraged to apply the tools of analysis in their own written assignments and presentations, resisting gender stereotypes and working for change.

Prerequisite: ENG 102

Credits: 3

HUM 203: Introduction to Media

Media is a form of public service whose main focus is to inform the general public about issues of concern or interest to it. This course will cover the essentials of journalism. It will help you identify issues and people of interest to society and develop your ability to write about them in an engaging manner. You will learn how to research issues not only through written material, but also through interviewing people and asking them probing questions. This course is not heavy in terms of the amount of writing you will have to do, but it is demanding in terms of the research that goes into writing solid, and credible journalistic pieces.

Prerequisite: ENG 101

Credits: 3

HUM 255: Social Justice in Theory and Practice

HUM 255 is a service learning course which intends to appeal to students of all majors who are interested in applying theoretical knowledge to community service. In this course students will learn about gender, race, disability, and class. The focus is on the social construction of these concepts in the context of KRG, how these constructions normalize exploitative relations, and how to counteract these acts of exploitation. The theoretical part will be followed by a focused research project where students collect data about a particular issue that they want to explore. After identifying the problem students will then engage in community based service activities related to their research topic. As students engage in the field they will be writing introspective papers to reflect on their own social position in relations to others and to identify obstacles faced while trying to make a difference. This course encourages ethics of service and responsible citizenship.

Prerequisite: ENG 102

Credits: 3

Upper-Level Literature Classes**LIT 300: Literary Foundations: Traditions and Themes**

"If I have seen further it is by standing on the shoulders of giants."—Isaac Newton

"A poem is best read in the light of all the poems ever written."—Robert Frost

This course exposes students to certain texts of the Western canon, whose marks on the contemporary world are pervasive—indeed seemingly ubiquitous—and indelible. Our

attempts to understand modern texts (written, oral, and visual), which often abound with allusions—intentional and unintentional, explicit and implicit—to earlier poems, plays, and prose, can fall short without awareness of their origins. Familiarity with these works will enable students to expand their capacity for understanding (Frost) and to enrich their own contributions to ongoing conversations (Newton).

Prerequisites: ENG 102

Credits: 3

LIT 301: British Literature

This course offers an introduction to the history, culture, and literature of Great Britain and the British Empire. Students will read texts from a range of genres, historical periods, and cultural contexts. They will learn to write critically about literature through its formal patterns; its aesthetic, political, and philosophical agendas; and its relationship to its social and historical contexts. Students will become familiar with major authors, periods, and movements from Shakespeare's time to our own.

Prerequisites: ENG 102

Credits: 3

LIT 302: American Literature

This course gives students an overview of the whole history of US Literature, from the puritan settlers to the twenty-first century. Covering various genres—poetry, drama, fiction, nonfiction writing—various ideas of Americanness, and various groups of Americans, the course allows students to consider the various ways in which this national literature does or does not comprise a coherent tradition. Studying the texts both as linguistic literary constructions and as products of a developing historical and political context, students will write multiple original papers that explore the national literature in its consistencies, evolution, and departures.

Prerequisites: ENG 102

Credits: 3

LIT 304: World Literature

This course introduces students to major works of world literature from antiquity to the present and will emphasize critical reading and discussion of literature across time periods and cultures. We will engage questions of tradition and translation, asking how stories, poetry, and plays change their meanings over time and as they are shared between cultures.

Prerequisites: ENG 102

Credits: 3

LIT 310: Literary Foundations: Theory and Methods

This course equips students to engage with literature at a theoretical level, analyzing the nature of literature as a whole category beyond dealings with individual texts alone. Students will both engage with the dominant theories and theoretical questions in the current field, and develop theoretical understanding and perspectives of their own about the fundamental principles of reading and writing creative language. From the ancients to recently published research, students will learn to apply and critique other people's theories both in the abstract and by application to specific texts. By the end of the semester, students will create, develop, apply, and test the limits of some premises-to-implications literary-theoretical claims of their own, equipping them for fundamental inquiry in their future literary study.

Prerequisites: ENG 203 or Any 300-level LIT class

Credits: 3

LIT 311: Literature of the Oppressed: Race and Gender

This course introduces students to literature by writers from marginalized racial and gender groups. The literary texts will be supplemented by theoretical essays that will help us analyze them. The course will address how intersectionality—the overlapping of race and gender oppression—bears on our understanding of, and resistance to, oppression. Our readings will focus on the meaning of oppression, the ways in which it constructs social reality, and how these issues are represented in literature, particularly when approached through racial and gender lenses. The course will also deal with how literature becomes a site for resisting and revising racial and gender stereotypes, and considering our moral responsibility to challenge oppressive realities.

Prerequisites: ENG 102

Credits: 3

LIT 350: Gendered Representations of Genocide

Starting with theoretical and legal understandings of genocide and studying different examples of it, this course will move into addressing how the experiences of genocide, as well as its literary and cultural representations, are gendered. Through various literary and theoretical readings, the course will look at the ways in which gendered analysis of genocide has developed, moving away from essentialism which represents women as passive victims of men's brutality, and becoming more inclusive by addressing women's role as perpetrators of genocide as well as men's victimization. It will also analyze how this gendered analysis plays out in the public sphere through literature, commemorations, monuments, and museums. Gendered representations of genocide gets students to take part in deconstructing the dominant gender narratives in genocidal contexts. It includes two mandatory field trips visiting monuments and museums about the Anfal genocide.

Prerequisites: ENG 102

Credits: 3

LIT 360: Children's Literature

This course provides an introduction to children's literature, from pre-school nursery rhymes and picture books that are read to children, to the stories, myths, and legends. Among the topics the course addresses are: origins and development of literature for children (historical background); major works, writers, and illustrators; distinctive genres and their characteristics; nature and function of illustrations; social issues addressed in children's literature today; contemporary children's literature; critical approaches to children's literature; and uses of children's literature in school's curriculum, and bibliotherapy.

Prerequisites: ENG 102

Credits: 3

LIT 400 Feminist Criticism and Women's Writing

LIT 400 deals with women's literature that deconstructs patriarchal forms of representation. It highlights theoretical debates initiated by feminists to understand the dynamics of women's subordination, challenge the masculine symbolic order, counter gender stereotypes, and reclaim agency. The course introduces students to the history of women's writing, the anxieties around finding their own voice, writing as an act of resistance, and the intersection between feminism, on the one hand, and psychoanalysis and postcolonial theory on the other. It

examines the ways women writers have been excluded from the androcentric literary canon, the challenges they have faced while reclaiming the right to write and be recognized, and some of the theoretical approaches they have used to counter women's subjugation. In the final section of the course students will read an example of feminist literary writing of the 20th century which outlines women's struggle for freedom in a patriarchal society.

Prerequisites: ENG 203 or any 300-level LIT class

Credits: 3

LIT/POL 401: The Literature of What-If?

What if the losing side had won? What if today were the last day on earth? What if things were...different? This course traces the modern form of the "what-if" question back to European Enlightenment political and moral philosophy and the subsequent blossoming of so-called "conjecture" into a distinct literary genre in Britain between 1760 and 1820. From sordid tragedies that were banned from the stage, to wildly speculative post-apocalyptic texts, conjectural literature argues that the present is neither as inevitable nor as settled as it might at first appear. The course begins and ends in the 20th and 21st centuries with conjectural literature's modern-day inheritor, speculative fiction. Along the way, we will ask how it is that the "what-if" question manages consistently to unsettle narratives that had seemed fixed, and worlds that had appeared closed.

Prerequisites: ENG 203 or any 300-level LIT class

Credits: 3

LIT/POL 403: Literature and Politics

In this course, students will examine selected literary texts that illuminate the significant questions of political and social life. The course focuses on great artists and writers who have explored the nature of human beings as it relates to the key questions, problems, and realities of politics.

Prerequisites: ENG 203 or any 300-level LIT class

Credits: 3

LIT 404: Shakespeare

As one of the greatest writers in English, Shakespeare merits exclusive study. Students will look at his plays and his poetry, analyzing his work both in its historical context and in our contemporary context. Students will also look at how these texts have contributed to the modern and contemporary canon, helping writers who have derived their characters, plots, and figures of speech from Shakespeare. Students will read these texts for the pleasure of the language and to understand how they have served as a matrix for the literature that followed.

Prerequisites: ENG 203 or any 300-level LIT class

Credits: 3

LIT 405 / PSY 305: Literature and Psychology

Literature is almost unique among the arts for its ability to represent the internal workings of the mind. In this course, students will learn about the evolution of literary techniques for conveying mental experience, from the medieval period to today; they will examine the ways in which literature responds to new psychological theories and discoveries; they will appraise contemporary interdisciplinary research on the mental processes involved in

reading literature; they will investigate literature's capacity to represent impaired, extreme, or inhuman minds and mental experiences; and they will address whether there are mental phenomena that literature as a verbal art-form can't accurately address. Above all, they will work on substantial writing projects that combine research, psychological knowledge, and literary analysis to examine what the combined study of literature and psychology can contribute to both fields.

Prerequisites: ENG 203 or any 300-level LIT or ENG course

Credits: 3

LIT 407: The Modern Short Story

This course will introduce advanced students to the modern tradition of the short story from Balzac to the present with an emphasis on craft and student writing. Students will develop an appreciation for different critical understandings of the short story and explore the historical evolution of its conventions. All instruction will be accompanied by a workshop component where students will apply their developing knowledge of craft. The emphasis of written work will be on understanding and employing specific techniques in producing short fiction as well as revision based on editorial guidance.

Prerequisites: ENG 203 or any 300-level LIT class

Credits: 3

LIT/POL 470: The Literature of Imperialism and of its Aftermath

This course explores the experience of imperialism, decolonization, and globalization in the so-called "Islamic World" through the lens of literature. In addition to a selection of writers from across the Middle East, North Africa, and Asia, we will examine how European and American perceptions of Islamic societies have changed, and failed to change, over the same period.

Prerequisites: ENG 203 or any 300-level LIT class

Credits: 3

LIT 471: Travel Literature

This course introduces students to literature of travel produced by various writers through time and across lands and seas. What we encounter in terms of texts differs according to who is traveling, whom the traveler seems to be speaking to, where they travel, when they travel, how they travel, and with whom they travel—to name just a few of the ways that context informs travel literature.

Prerequisites: ENG 203 or any 300-level LIT class

Credits: 3

LIT 472: Modernity in Ruins: the Literary Fragment

The trope of literary fragmentation fills Western literature and occurs in a number of ways: Romantic ruins and hauntings; collection, re-collection, and memory; trauma and the fragmentation of the self; quotation and allusion. This course will examine some of the major thematic and structural roles that the literary fragment has played. The course will be arranged in a roughly chronological way and will study major movements including Petrarchism, the Metaphysical poets, European Romanticism, Anglo-British Modernism, and postmodernism.

Prerequisites: ENG 203 or any 300-level LIT class,

Credits: 3

LIT 473: Literature and the Psychology of Trauma

Trauma, physical as well as emotional, plays a central role in literature. This role occurs thematically, certainly, but also in terms of authors' motivations for writing as well as in potential therapeutic uses for literature. This course will focus on several closely related aspects of the traumatic in literature. First and foremost, students will read, analyze, and discuss works of literature in which trauma or a traumatic experience plays a major part. At the same time, we will study some important theoretical works that discuss the role of trauma studies in the process of interpreting literature. Finally, we will examine ways in which literature itself can serve as a psychologically useful activity, from being a potential medium for working through trauma to just simply serving as a healthy method of intellectual and emotional expression. To this end, there will be a creative aspect to the class as well, as students will have the chance to do some writing of their own.

Prerequisites: ENG 203 or any 300-level LIT class, Credits: 3

LIT 474: Encountering the Western Other: Contact in Modern Arabic Literature

This course focuses on the notion of "contact," a genre of literary writing that sheds light on how different cultures, through their representative individuals, institutions or ideas, come to experience one another. "Contact literature" investigates the kind of changes that the experience of contact (un)evenly sets in motion in the involved cultures. In particular, by engaging Arabic fictional texts dealing with different experience of "contact" in the 19th and 20th centuries, the course will focus on recapturing a sense of the Arab experience of encountering Western modernity, re-establishing some of the larger cultural contexts within which this experience has occurred and made its effects felt.

Prerequisites: ENG 203 or any 300-level LIT class

Credits: 3

Upper-level Writing Classes

ENG 303: Origins and Structures of the English Language

This course focuses on two aspects of the development of the English language. First, we'll examine structural linguistic issues: grammar, syntax, phonology, and morphology. What is the correct way to use English? Is there a single correct way? Next, we will study the story of English itself, tracing its development from Old English to Middle English and now to Modern English. How are scholars able to re-create how English used to sound (and be used)? How did modern English pronunciation and spelling become so unusual and idiosyncratic? Attention will also be given to the many varieties of contemporary English and how English may continue to change in the future. Prerequisites: ENG 102

Credits: 3

ENG 340: A Literary History of the English Language

This course introduces students to the historical development of the English language, tracing it back to its distant roots in the Indo-European family of languages. Where did English come from, and how did it grow to become the world's lingua franca? From what other languages does it draw its vocabulary? What is unique about its structure, and why is it so hard to spell? Along the way, we'll explore major works of English literature at each stage of the language's history, from Old English (Beowulf), to Middle English (the Canterbury Tales), to modern English as it emerged in the age of Shakespeare and evolved into its current form. The last section of the course looks at the rapid spread of English as a global language and asks what the next stage of English's evolution might look like.

Prerequisites: ENG 102

Credits: 3

ENG 350: Creative Writing

This is a course for creative writers of fiction and poetry to read and critique each other's work. Students will focus on generating and revising material as they work toward their final portfolio and reading. Readings assigned as deemed necessary.

Prerequisites: ENG 101

Credits: 3

ENG 400: Literary Translation

In this seminar, students will experiment as translators moving advanced level creative texts from Kurdish, Arabic, Turkish, and/or Farsi into English. They will move away from transliteration into translation, using English fluently and gracefully. Each student after studying certain texts as a class, will design his or her own project to complete during the remainder of the semester. Students will, as a class, finish the semester in workshop, revising material to incorporate in the final portfolios, class anthology, and reading.

Prerequisites: ENG 102

Credits: 3

ENG 408: Poetry Writing Workshop

This course offers students the opportunity to focus on the craft of writing poetry, with relevant readings in the genre. Students will generate and revise work in constructive conversation with their fellow students and professor. The semester will culminate in the compilation of a final portfolio and a public reading.

Prerequisites: ENG 203 or any 300-level LIT class

Credits: 3

Language, Linguistics, and Translation Classes

LNG/ARA 101: Introductory Language - Arabic

This class introduces students to the basics of Arabic, presuming no prior knowledge of the language. Students will become familiar with common phrases, with a simple practical vocabulary on common topics, and with the simple past, present, and future tenses. The course will cover all the skills of listening, reading, speaking, and writing, with a focus on reading for the benefit of students who may intend to use Arabic for academic purposes in their degrees. The course materials will draw both on textbook training material and on authentic real-life examples of written and spoken Arabic. The course comes with a weekly lab component alternating between conversational and reading-comprehension practice.

Prerequisites: none

Credits: 3

LNG/ARA 102: Intermediate Language - Arabic

This course develops students' Arabic skills to an intermediate level, extending their linguistic, grammatical, and vocabulary knowledge to a point where they can begin to use language creatively and critically on civic, academic, and humanistic topics. The course will cover all the skills of listening, reading, speaking, and writing, with a focus on reading for the benefit of students who may intend to use standard Arabic for academic purposes in their degrees. The course materials will draw both on textbook training material and on authentic real-life examples of written and spoken Arabic, with particular emphasis on

developing reading skills through word by word collaborative reading of a book in idiomatic Arabic, and on developing practical academic language skills by taking part in conversations and arguments on academic topics related to the course material. The course comes with a weekly lab component alternating between conversational and reading-comprehension practice.

Prerequisites: none

Credits: 3

LNG 320: Pragmatics and the Use of the English Language

Pragmatics is the study of language in-use (as opposed to language formation, history of language, or acquisition theory). The study of what different groups call pragmatics has roots in philosophy, psychology, sociology, and linguistics. For this class, the study of pragmatics centers on how meaning is made through the use of a code of linguistic symbols together with contextual information. The course first gives an overview of different theoretical and analytical concepts in pragmatics. The second part of the course explores different registers that are commonly used in English around the world, and the third part of the course uses data from talk-in-interaction and the classroom to expand and test these theories and concepts. This expansion brings us into the realm of cross-cultural and interlanguage pragmatics that can be applied in various fields, including translation, intercultural studies, journalism, and business.

Prerequisites: ENG 102

Credits: 3

LNG 350: Sociolinguistics

This course is an introduction to sociolinguistics, the study of the relationship between language and society. We will look at social factors like gender, ethnicity, culture, and class, and connect the variation found in everyday speech to the larger forces that drive languages to change over time and space. We will explore attitudes and ideologies about varieties of language while considering some of the educational, political, and social repercussions of these sociolinguistic data. The course will feature a hands-on research component in the form of field projects; you'll learn how to collect data on how people use language in real life and analyze the data you collect, gaining useful quantitative and qualitative skills that can be transferred to other fields.

Prerequisites: ENG 102

Credits: 3

TRN 300: Theories of Translation

This course is an introduction to the various approaches and theories of translation. It focuses on the fundamentals of translation theory to facilitate the comprehension of translation's multidisciplinary nature, and the variety of theoretical approaches that can be taken to the underlying principles and to work in the field. It also focuses on the use of theory in text analysis before and after translation, the metalanguage elements, the role of the translator's decision-making process, and techniques/strategies that students might employ to tackle recurring translation problems.

Prerequisites: ENG 102

Credits: 3

TRN 310: Beginning Consecutive Translation Technique

This course introduces the basic techniques of written translation for short texts between English and either Kurdish or Arabic. Students will learn and practice memory techniques,

paraphrasing, how to make decisions about salience and importance, and how to retain important connotations and associations. They will learn how to best employ technological aids and how to coordinate and standardize group translation. Students will also expand their English language skills through practice with complex grammar and advanced vocabulary. Assessment will be through regular practical translation exercises into and out of L1 and L2 in a variety of registers, under timed and untimed conditions, as well as summative exams.

Prerequisites: ENG 101

Credits: 3

TRN 311: Advanced Consecutive Translation Technique

This course trains students who are already familiar with the basic techniques of written translation (between English and either Kurdish or Arabic) in the strategies, tools, and theoretical underpinnings necessary to work with more complex, specialized, or extended material. Students will learn how to work with a variety of techniques and strategies for translating at more complex levels of equivalence than the word-to-word level. They will learn to avoid common problems of equivalence, and practice translating at a higher level of equivalence and idiomaticity through extended revision practices. They will learn how to best employ technological aids and how to coordinate and standardize group translation. Students will also expand their English language skills through practice with complex grammar and advanced vocabulary. Assessment will be through regular practical translation exercises into and out of L1 and L2 in a variety of registers, under timed and untimed conditions, as well as a summative exam and a translation project.

Prerequisites: TRN 310

Credits: 3

TRN 410: Medical Translation

This course will teach the variety of theoretical approaches, strategies and procedures which have been practiced and developed within the field of medical translation and of the solution driven mind of a translator in a specialized field to determine the best approach and strategy/ procedure dependent on the target readership. It will explore the definition of bilingual healthcare, which involves healthcare services provided in intercultural contexts, in which providers and patients need to communicate with each other through differences in languages, cultures, illness ideologies, socioeconomic statuses, and educational backgrounds. This course is designed to address and highlight the increasing needs of a linguistically diverse population accessing healthcare, along with the increasing numbers of issues faced by societies trying to accommodate these important changes to meet the needs of their diverse members.

Prerequisites: TRN 310 or BIO 203

Credits: 3

TRN 420: Legal Translation

This course will teach the variety of theoretical approaches, strategies and procedures which have been practiced and developed within the field of medical translation and of the solution driven mind of a translator in a specialized field to determine the best approach and strategy/ procedure dependent on the target readership. It will explore the definition of bilingual healthcare, which involves healthcare services provided in intercultural contexts, in which providers and patients need to communicate with each other through differences in languages, cultures, illness ideologies, socioeconomic statuses, and educational backgrounds. This course is designed to address and highlight the increasing

needs of a linguistically diverse population accessing healthcare, along with the increasing numbers of issues faced by societies trying to accommodate these important changes to meet the needs of their diverse members.

Prerequisites: TRN 310 or LGS 205A

Credits: 3

Upper-level Journalism Courses

JRL 301: Reporting

Media is a form of public service whose main focus is to inform the general public about issues of concern or interest to it. This course will cover the essentials of journalism, both as a genre of writing and as a practice of research and discovery. In particular, students in this course will learn the structures, terminology, process of basic news-writing, and how to identify bias – their own and others’ – in order to guard against it in their presentation of the news. Students will also learn how to research issues not only through written materials, but also through interviewing people, going to where events occur, and asking probing and productive questions. Students will learn how to identify stories of genuine interest to real audiences, and will research and write reports on matters of active interest both on campus and in the local community. As in every writing course, students will read as writers, deriving a practical understanding of news-writing precepts. The focus will be not on volume of finished writing, but on creating a small professional-standard portfolio of reports in distinct genres like spot reporting, features, investigative reports, and editorial opinion.

Prerequisites: ENG 102

Credits: 3

JRL 302: Advanced Reporting

In this course, students will draw on their studies of world-class newswriting to design their own independent reporting project. Students will move out into the world, each pursuing a single pointed question through interviews and research. Drawing on their understanding of creative non-fiction and basic reporting techniques, this course will provide students an opportunity to apply literary tools to feature-length news stories. Given the current environment for reporters in Iraq, students will inevitably face questions revolving around what investigative journalism is and how to conduct it.

Prerequisites: JRL 301

Credits: 3

JRL 303: Media Coverage of International Crisis

This course examines how the international broadcast, print, online and social news media cover conflict and other international humanitarian crises. Through readings, class discussion, films, lecture, case studies, and individual research and analyses, students will construct an understanding of the shifting business and culture of global news organizations, and of the dynamic interaction in crises among news producers, relief organizations, policymakers, the public and those directly affected by crises

Prerequisite: ENG 102

Credits: 3

JRL 304: Creative Non-Fiction

This course will introduce students to the genre of creative non-fiction. Students will consider the responsibilities and freedoms of writing non-fiction with a creative lens.

Critically reading various writers, students will study and develop dexterity with certain tools – figurative language, narrative structures, and sensory detail – that support the creative aspect of non-fiction.

Prerequisites: ENG 102

Credits: 3

JRL 310: Introduction to International Journalism

The Introduction to International Journalism course is meant to provide students with a way of thinking critically about the environment in which they report while finding the connections to other geographical places. What are the implications and consequences of those connections? What is globalization and how does it have an impact on the “ground,” in the local area? For example, how does a textile boom in China affect the livelihood of workers in South Africa? How are cell phone users around the world connected to the war in the Democratic Republic of Congo? How does European taste for the Nile Perch contribute to growing proliferation of violence against children in certain parts of the world? What role do heavy metals play in the slow death of local agriculture and growing dependence on imported foods?

Prerequisites: JRL 301, Credits: 3

JRL 330: Photo-Journalism

Students will move between study and practice, examining what makes a good photograph, what makes a good photo-essay, and how to blend the utilitarian with the aesthetic. Students will also look to historical and contemporary sources to structure their thinking about their own photographic projects.

Prerequisites: ENG 102

Credits: 3

JRL 331: Audio-Journalism

Students will move between study and practice, listening to and analyzing examples of recorded journalism. What makes a particular recording compelling? What kinds of projects translate well to this medium? Why? Looking to these examples, students will pursue our own recording projects, trying to accomplish in their work the success they have recognized in the work of others.

Prerequisites: ENG 102

Credits: 3

JRL 332: Using and Editing New Media

Having gathered an understanding of various types of media, having generated significant amounts of original material, students will begin to synthesize various pieces into whole multimedia presentations. As the reporting world becomes increasingly digital, students must be ready, as intellectuals and professionals, to move amongst media without sacrificing conceptual unity.

Prerequisites: JRL 301, JRL 330, and JRL 331

Credits: 3

JRL / LIT 375: Arts-Writing for Publication

Aimed equally at literature and journalism students, this course trains students in the genres of writing about the arts that can lead to local or international publication, with a goal of each student taking at least one of the documents they create during the semester through

the full process from pitch to publication in a non-campus venue. We will examine the conditions of the current field and market of arts writing, locally and internationally, online and in print, and analyze the requirements of a number of different genres of arts-writing, from reviews of single artworks, to interviews with artists, to guides to an exhibition.

Students will read and write about a variety of art media, from literature to music, film, and computer games, with students encouraged to pursue projects in the arts that most interest them. Guest speakers will give students opportunities to learn from professional writers and editors, and students will frequently put themselves in the editor's shoes when workshopping classmates' writing. By the end of the semester each student will assemble a portfolio of arts-writing written to professional specifications.

By default a JRL course, students can list this as a LIT class if their final portfolio contains no more than 1 document written about a non-literature art form.

Prerequisites: ENG 102

Credits: 3

JRL 398: On-Campus Journalism Internship

This course, designed to be run as a directed study, provides an on-campus opportunity for students to practice journalistic, reporting, and writing work in a practical professional environment. Specific locations for the internship may vary, from editorial roles on the AUIS Voice to work for the Communications department or research centers. Students will agree on a project and workload before the end of the first week of the semester and then spend the rest of the semester doing weekly tracked hours of internship work, as well as regularly meeting with the course's faculty supervisor to discuss their work and its relation to their journalistic skills and training. The course grade will be assessed on the basis of a combination of documented work hours, quality of work produced, and metacognitive reflection on the contribution the internship is making to the student's professional skills.

Prerequisites: JRL 301 and instructor approval

Credits: 3

JRL 400: Journalism Ethics, Practice, and Law

In a region of emerging laws concerning freedom of speech, libel, and copyright, any journalist will need to consider the rule of law, culture, and professional ethics. In this course, students will review particular cases both from the region and abroad that highlight collisions of law, culture, and ethics. Students will approach these cases as professionals asking what they might have done in a similar situation, exercising their critical skills in light of professional responsibility toward the subjects and people they cover, the news outlets that support them, and the culture to which they contribute.

Prerequisites: JRL 301

Credits: 3

JRL 499: Special Topics

In this course, students will undertake an in-depth study in one of the subfields of journalism.

Prerequisites: Junior or senior standing in the Journalism major and the permission of the instructor. Credits: 3

Miscellaneous English Department Courses

CAR 101: Introduction to Career Development

This three-credit course will holistically prepare students to plan for their careers with intention and agency. It will give students a toolkit to answer questions about who they are, what their career goals are, and how to achieve them. Along with building practical job-search skills, the course will develop professional behavior and goal-setting skills. Students will explore their personalities, values, strengths, and roles as citizens, and use these insights to plan for meaningful and satisfying careers in a pluralistic and global society.

Prerequisite: None Credits: 3

PDG 300 Pedagogy

This course will introduce students to theories of pedagogy: what is education? What is learning and how can the classroom foster its processes? What is the role of the student? The educator? Students will become familiar with the central questions in pedagogy and the individuals articulating the various opinions.

Prerequisites: ENG 203

Credits: 3

ETW 400 English Thesis Workshop

This course offers English and English-Journalism majors a capstone experience that synthesizes the specific skills and interests they have developed over the course of their studies. Students will read deeply in the theory and practice of professional research in their field (literature or journalism), leading to a detailed proposal, approved and supervised by the instructor, for the project they will carry out in the second part. English and English-Journalism students will be enrolled in a single tutorial in order to take advantage of the shared and complementary skills of these two disciplines.

Prerequisites: Instructor Permission Required

Credits: 3

The Department of Information Technology

ITE 202: IT Systems

This course introduces students to the basic components of IT systems, including networking, web systems, databases, scripting, system administration and maintenance, and system integration, with both theories and practical experience. This course is designed in such a way that helps students to make decisions regarding their major and minor selection based on realistic experience with the discipline and level of expectations. Therefore, this course works as an entry, rigorous, and filtering course to all other IT courses and as a prerequisite to all other IT courses.

Prerequisites: CSC 101

Credits: 3

ITE 301: Data Communications and Networks

This course introduces the fundamental building blocks that form a modern network, such as protocols, topologies, hardware, and network operating systems. It then provides in-depth coverage of the most important concepts in contemporary networking, such as TCP/IP, Ethernet, wireless transmission, and security. The course will prepare you to select the best network design, hardware, and software for your environment. You will also have the skills to build a network from scratch and maintain, upgrade, and troubleshoot an existing network.

Prerequisites: ITE 202

Credits: 3

ITE 303: Introduction to Programming

The purpose of this course is to introduce students to a disciplined approach to computer programming and problem solving, utilizing a high level programming language, with an emphasis on procedural abstraction and good programming style. Syntax, overall program design, testing and debugging will be intensively examined. Basic programming techniques and topics will be emphasized including the use of variables, functions, conditionals, loops, and arrays. The practical part of the course focuses on programming and developing application programs that emphasize the concepts and the tools covered in the course.

Prerequisites: ITE 202 & MTH 235

Credits: 3

ITE 304: Fundamentals of Web Systems

The main purpose of this course is to introduce students to the fundamentals of Web systems and technologies. The course covers the design, implementation and testing of Web based applications including related software, interfaces, and digital media. It also touches on the social, ethical, and security issues arising from Web based software. Students will be introduced to different Web system components using HTML, XHTML, CSS, JavaScript, and CMS. The course uses simple conventional text editors to put the students into hard coding using the above tagging and scripting languages. The practical part of the course focuses on programming and developing Web pages and applications that emphasize the concepts and the tools covered in the course.

Prerequisites: ITE 202

Credits: 3

ITE 305: Database Management Systems

This course provides students with an introduction to the core concepts in data and information management. It is centered around the core skills of identifying organizational information requirements, modeling them using conceptual data modeling techniques, converting the conceptual data models into relational data models, verifying the relational data models' structural characteristics with normalization techniques, and implementing and utilizing a relational database using a personal database management system. The course will also include coverage of basic database administration tasks.

Prerequisites: ITE 202

Credits: 3

ITE 306: Computing Platforms

Principles of computer hardware and low-level software, including logic circuits, assembly language, I/O, storage, program execution, basic of computer operating systems, including configuration, file systems, security, administration, interfacing, multitasking, and performance analysis. This course better prepares the IT students to computing platforms and different computing environments and give students competency in working with operating systems and file management.

Prerequisites: ITE 202

Credits: 3

ITE 308: IT Project Management

Project Management is now a key concern of many major companies particularly those that operate under a project oriented structure. This course provides the student with the skills expected of a Project Manager. The course pays particular attention to the skills relevant to IT projects but is general in nature.

Prerequisites: ITE 301

Credits: 3

ITE 401: Advanced Computer Networks

This course prepares students with the knowledge and skills required to install, operate, and troubleshoot a small to medium size enterprise network. The topics include WAN technologies, network security; media (wired and wireless), and routing and switching fundamentals. The TCP/IP and OSI models are covered extensively and IP addressing, operating and configuring IOS devices including VLANs emphasized. IP routes, managing IP traffic with access lists, and establishing point-to-point connections are covered as well.

Prerequisites: ITE 301

Credits: 3

ITE 403: Information Security

The course emphasizes the need for good Information systems security management. Its aims are to identify the problems associated with Information security management and to demonstrate how those problems are resolved. Therefore, Information security requires an understanding of relevant technological issues and of the social/organizational issues. This leads to the development of a security policy based on a security model. Over the last decade, many security-related standards have been produced by international standards bodies. This module examines some of the most important of these standards in detail. In doing so it illustrates how international standards now cover many aspects of the analysis and design of secure systems.

Prerequisites: ITE 301 & ITE 308

Credits: 3

ITE 404: Web Applications Programming

This course builds on ITE304: Fundamentals of Web Systems to introduce the students to deeper understandings of dynamic Web applications. Detailed coverage of concepts and tools such as server-side scripting languages and database driven Web sites is the main core of the course.

Prerequisites: ITE 303 & ITE 304 & ITE305 Credits: 3

ITE 406: Professional Ethics and Communications

This course introduces students to written and oral, technical and professional communication, including proposals, reports, presentations, formal papers and software documentations. It also covers all areas of ethics in the computing profession. This course is necessary to improve the students' bank of technical vocabulary related to the discipline and educate the students to work ethically with sensitive information and data. Prerequisites: ITE 308

Credits: 3

ITE 407: Advanced Database Management Systems

While still centered around the core database skills using a personal database system introduced in ITE 304, this course expands its coverage to the capabilities of an industrial-strength database management system. In addition to developing database applications, the course helps the students understand how large-scale packaged systems are highly dependent on the use of DBMSs. Building on the transactional database understanding, the course also provides an introduction to data and information management technologies that provide decision support capabilities under the broad business intelligence umbrella.

Prerequisites: ITE 303 & ITE 305

Credits: 3

ITE 408: Interaction Design

This course introduces students to the basic concepts of human-computer interaction (HCI), including human factors, performance analysis, cognitive processing, usability studies, environment, and training. It covers the basics of human factors, HCI aspects of application domains, human-centered evaluation, developing effective interfaces, emerging technologies, human-centered software, and accessibility.

Prerequisites: ITE 304 & ITE 308

Credits: 3

ITE 409: Advanced Programming

The main purpose of this course is to introduce students to the object-oriented programming (OOP) paradigm building on the procedural programming paradigm covered in their previous programming courses. A pure object-oriented programming language such as Java or C# is going to be used in the course. Problem analysis, solution design, debugging, and decision making all are well covered as part of this course using an OOP paradigm.

Students also experiment building graphical-user interface (GUI) applications. The practical part of the course focuses on programming and developing application programs that emphasize the concepts and the tools covered in the course.

Prerequisites: ITE 303

Credits: 3

ITE 411: IT Capstone Project I

The capstone module offers students the opportunity to develop their analytical and critical skills in an IT project based on a topic, selected by the student, which will be approved and supervised by a member of the teaching team. This is the first part of a two-course capstone project experience in information technology. This course covers problem definition, System requirements, formulate project objectives and aims, and write a proposal.

Prerequisites: ITE306 & ITE 308 Credits: 3

ITE 412: IT Capstone Project II

The capstone module offers students the opportunity to develop their analytical and critical skills in an IT project based on a topic, selected by the student, which will be approved and supervised by a member of the teaching team. Project implementation requires the student to implement their design and make any justified modification to their chosen project using suitable tools and techniques.

Prerequisites: Last Semester Credits: 3

IT/SE Elective Courses

ITS 301: Creative Coding and Computing

This course introduces students to one of the most modern tools used in the creation of contemporary arts: creative coding and computing. It teaches creative coding and computer programming as a form of expression rather than a form of solution. It uses computing as a powerful and flexible tool to stimulate creativity and the creation of arts. It also covers how computer programming and its ease-of-use have changed the face of contemporary art in the modern world and pushes the boundaries of creativity. Using the right blend of art, science, and technology it expands students understanding of computing applications, with a specific focus on the creation of digital arts. Using a hands-on, exploratory approach, this course is designed for students with no particular background in computing, except basic computer literacy at the level of operating a computer for personal daily use and some interest in the arts.

Prerequisites: ITE 202

Credits: 3

ITS 310: Physical Computing and Robotics

This course introduces students to the fundamentals of sensing and controlling the physical world with computers. It covers aspects of embedded programming and automation systems, microcontrollers and electronic circuit boards, and robotics. It expands the students' understandings to go beyond the common stereotype of computers. It is mainly a practical oriented course with loads of hands on exercises and practical projects, supported by necessary theoretic knowledge.

Prerequisites: ITS 301 or ITE 303

Credits: 3

ITS 320: Computer Forensics

The overall goal of this course is to enable students to gain an understanding of what computer forensics is, how it is carried out and what technical tools can be used under constraints imposed by legal considerations. To this end, students analyze various scenarios choose tools relevant to the investigations, and practically carry out forensics tests. The structure of different operating and file systems and their impact on the choice of forensics procedures is an integral part of the course.

Prerequisites: ITS301 or ITE202 Credits: 3

ITS 322: Introduction to Systems Administration

System Administration encourages management of networked servers of at least two different Network Operating Systems managing an equally varied client Operating System environment. This course will equip students with knowledge and skill on how servers are set up, how networks with different Operating systems negotiate multiprotocol connectivity and function. Virtual Machine knowledge will be introduced to emphasize the concept of cloud computing, Hardware as a Service (HaaS) and Software as a Service (SaaS) and application software management.

Prerequisites: ITS301 or ITE202 Credits: 3

ITS 330: Introduction to GUI and Graphics Programming

Graphical user interfaces are the primary method of interaction between a computing system and its users. Through these interfaces users enter information, analyze data, search information, etc. This course will explore concepts behind user interfaces and how to implement common interface elements that are used in a computing system. Various GUI components and integration of these components into a usable system will be covered.

Prerequisites: ITE 303

Credits: 3

ITS 340: Rapid Online Presence

This course gives students understanding of the concepts behind web content management systems, and experience with installing and customizing WCMS-based websites. Although large-scale websites still require considerable development effort, web content management systems and their plug-ins facilitate the establishment of a web presence using tools aimed at non-programmers. The course starts with a brief introduction into the basics of the Web, HTML, CSS, and WCMSs, after which a WCMS implementation will be examined in detail and used to create a showcase website. The course will also cover website backup, restore, maintenance, SEO techniques, and online hosting details.

Prerequisites: ITS301 or ITE202 Credits: 3

ITS 350: Introduction to Algorithm and Data Structures

This course introduces fundamentals of data structures and algorithms. Main topics include data structures such as lists, stacks, queues, arrays, trees, and other advanced data structures used in high level programming languages. Students will also engage in study of algorithmic techniques for hashing, sorting and searching, and the preliminary analysis of such algorithms to determine their complexity and efficiency.

Prerequisites: ITE 303

Credits: 3

ITS 355: Parallel Coding and Programming

This course is an introduction to collaborative coding and parallel programming. We firstly motivate a version control system as a powerful tool to facilitate distributed, collaborative software development at scale. This course, then, introduces the basic constructs for building parallel computing, in which multiple compute resources are used simultaneously to solve a computational problem. The main topics include concurrency, collaborative coding, synchronization, message passing, and parallel and distributed programming.

Prerequisites: ITE 303

Credits: 3

ITS 410: Mobile Application Development

This course covers the fundamental principles of developing mobile applications and Android will be used as the target platform. Students will explore design, development, testing and deployment of mobile applications using Eclipse IDE and Android SDK. Topics include Android SDK, design principles, application structure and styles, UI (user interface), content storage and its management. Several core Android API will be covered.

Prerequisites: ITE 409

Credits: 3

ITS 420: Web Development Using ASP.NET and C#

The purpose of this course is to introduce students to server-side web development using ASP.NET, utilizing a popular high level programming language such as C#. ASP.NET execution model, page life-cycle, server controls, data sources, and data bindings will be explained. The practical part of the course focuses on developing Web applications that emphasize the concepts and the tools covered in the course.

Prerequisites: ITE 304

Credits: 3

ITW 401: Front-end Web Development

This course will provide students with hands-on experience of developing dynamic and interactive websites that combine graphics, audio, and video; and focuses on user centric software design and development. Technologies like HTML5, CSS3, jQuery/JavaScript, and frameworks like Twitter Bootstrap, will be introduced to design, and create dynamic and responsive websites that are cross-browser compatible on desktops, tablets, and mobile phones.

Prerequisites: ITE 304

Credits: 3

ITW 404: Web Application Security

This course examines issues associated with making web applications secure. It covers network and web security broadly from the network to the application layer. The emphasis of the course is on the underlying principles and techniques, with examples of how they are applied in practice.

Prerequisites: ITE 404 & ITW 401

Credits: 3

ITW 405: Advanced Web Technologies

This course would cover some additional technologies for producing Web applications of various types, for example Ruby on Rails and one of the popular languages for CGI. Some Web search techniques, SEO, writing spiders and scrappers, design and management, and security issues may also be covered in this course.

Prerequisites: ITE 404 & ITW 401

Credits: 3

SE301: Software Engineering Principles

This course covers the fundamentals of constructing robust and usable software systems mainly using the object-oriented approach. The principles of requirements engineering, software design and development are discussed thoroughly. The course also provides an introduction to software quality assurance, software testing and project management. Students will learn valuable skills necessary for software engineering practices, including creating project plans, soliciting requirements, creating design models, and practicing software validation and verification activities. In addition, students will gain hands-on experience in engineering a software system that meets desired needs and constraints and practically go through the main steps of software engineering process.

Prerequisites: ITE202

Credits: 3

SE311: System Analysis & Design

This course gives an understanding of how to address business problems by specifying what an information system should do and how its components should be organized to address the problem. The main emphasis here is on System Analysis and Design (SAD) and the approaches and techniques essential for system analysts and designers. The course teaches a methodical approach to analyze business problems, identify, and model system requirements. The course then explores how to systematically design possible solutions and choose between the design alternatives. The covered topics are requirement gathering and specification, component analysis and design, as well as data and process modelling.

Co-requisites: SE301

Credits: 3

SE355 (formerly SE450): Distributed Computing

This course aims to cover the challenges faced in the development of large-scale distributed systems. The emphasis is on developing an infrastructure in which different networked computers can work together to solve pending computational problems. Through coursework, students will gain practical experience in designing and testing distributed systems. Students will also learn how to reason the performance of distributed procedures. The core topics of this course include distributed computation problems, distributed programming, synchrony, logical timing, fault tolerance and leader election

strategies.

Prerequisites: ITS350 and ITE301

Credits: 3

SE421: Software Designs and Models

This course covers the key concepts and techniques necessary to solve commonly occurring problems in software design. Students will be introduced to the notion of having design notations in structure and behavioral descriptions. Well-known software design patterns are thoroughly presented as a means of reusing design models that are considered best practices. The course provides an overview of various, yet commonly used, software architectural structures and styles. Through examples, practical methods for customizing software design structures are well covered to allow students to systematically balance among various software quality attributes. Students will also gain experience in designing software components that are not only testable, but also elastic to code refactoring.

Prerequisites: SE311 and ITE303

Credits: 3

SE422: Concurrent and Parallel Programming

This course introduces the fundamentals of concurrency and parallelism in software systems. The emphasis here is on the design and implementation of concurrent, soft real-time applications. This course covers parallel programming, which provides a powerful model to make applications run faster by utilizing multiple processors simultaneously. Optimally mediate the use of shared resources in such applications is discussed thoroughly. The core topics include multi-thread programming, coroutines, logical timing, atomic operations, inter-process communication, deadlock detection, mutual exclusion, and semaphores. The course requires a number of programming assignments to give opportunities for students to gain hands-on experience in structuring, implementing, and debugging concurrent programs.

Prerequisites: ITE303

Credits: 3

SE423: Enterprise Software Architecture

This course will explore the concepts, principles, and methods in enterprise software architectures, including architectural styles and architecture description languages (ADL). Technologies such as Web Services and cloud computing provide platforms for building such systems, and architectures such as service-oriented architecture, event-driven architecture and REST are idioms for structuring such systems. This course will focus on analysis, design and partial implementation of enterprise software systems. A basic introduction to enterprise software architecture quality evaluation metrics and approaches will also be provided in the course. For implementation purposes, the course will cover a basic foundation of Web Service technologies such as WSDL, UDDI and SOAP as well as various cloud services and frameworks.

Prerequisites: SE355 & SE421

Credits: 3

SE455: Software Testing

This course exposes students to the fundamental principles and processes of software testing. The aim is to increase the student's productivity as software engineers, and improve the reliability of the code they produce. The course starts by introducing how to examine testability of system requirements. The course then concentrates on code testability, which is essential to ensure automated regression testing. Students will actively

learn a variety of strategies to systematically find software bugs and defects. The most recently developed techniques for automated testing, static analysis and passive monitoring are thoroughly covered in this course.

Prerequisites: SE301 and ITE303

Credits: 3

SE490: SE Capstone Project I

The SE Capstone I module offers students the opportunity to develop their analytical and critical skills in developing a software system based on a topic, selected by the student, which will be approved and supervised by a member of the teaching team. This is the first part of a two-course capstone project experience in software development and information technology. This course covers problem definition, applied use-case analysis, system requirements, formulation of project objectives and aims, writing proposal and presentation.

Prerequisites: SE311 and ITE303

Credits: 3

SE491: SE Capstone Project II

The capstone module offers students the opportunity to develop their analytical and critical skills in an IT project based on a topic, selected by the student, which will be approved and supervised by a member of the teaching team. Project implementation requires the student to implement their design and make any justified modification to their chosen project using suitable tools and techniques.

Prerequisites: SE490

Credits: 3

Foundations of Cybersecurity

Cybersecurity terminology, principles, and technologies; introduces students to security issues related to hardware, software, cryptography, and policy to make better, safer decisions. Topics include cyber threats and vulnerabilities, information security frameworks and policies, cryptography, penetration testing, and defense in depth. Many of the techniques are demonstrated and practiced using a modern programming language. The goal is to develop a foundation for further study in cybersecurity.

Prerequisites: ITE303

Credits: 3

Foundations of Computing

Conceptual and formal models, efficiency and levels of abstraction as used in the field of computing, big-Oh notation, combinatorics and conditional probability, basic operations of sets, functions, relations, trees and graphs, regular expressions, deterministic finite automata and non-deterministic finite automata to describe patterns in strings.

Prerequisites: ITE303

Credits: 3

Principles of Systems Programming

Introduction to the design and operation of systems software. Analysis is made of current system software technology, including operating systems, language translation systems and file systems.

Prerequisites: ITE306

Credits: 3

Secure Electronic Commerce

Electronic commerce technology, models and issues, with emphasis on security issues. Supporting technology such as cryptography, digital signatures, certificates and public key infrastructure (PKI). Security-conscious programming for web-based applications. Exposure to interaction between technical issues and business, legal and ethical issues.

Prerequisites: ITS350

Credits: 3

The Department of Mathematics and Natural Sciences

CHEM 232: Chemistry I

This course is an introductory course for students with a background in chemistry. It will emphasize the fundamental concepts of general inorganic chemistry including formula naming, atomic structure, stoichiometry, gas laws, solutions, equilibria, redox, acid-base theory and Thermochemistry. Chem 232 is required for the Engineering majors.

Prerequisites: None, Credits: 3

CHEML 232: Chemistry I Lab

The course covers the laboratory techniques, skills and concepts used to study chemistry. This includes measurements, uncertainty, significant figures, separation of mixture, stoichiometry, chemical reactions, titrations, chemical equilibrium, thermochemistry, Lewis dot structure and the VSEPR theory. Two hours of laboratory per week.

Co-requisite: CHEM 232,

Credits: 1

CHEM 233: Chemistry II

This course is an introductory course for students with a background in chemistry. It will emphasize the fundamental concepts of general inorganic chemistry including thermodynamics, chemical equilibrium, acid-base theory, acid-base equilibrium, solubility and complex ion equilibrium, electrochemistry and nuclear chemistry.

Prerequisites: CHEM 232, CHEML 232

Credits: 3

CHEML 233: Chemistry II Lab

The course covers the chemistry laboratory techniques, skills and concepts used to study diffusion, intermolecular forces between molecules, reaction rates, colligative properties, chemical equilibrium, chemical equilibrium constant, buffer solutions, spontaneity of chemical processes and electrochemical cells. Two hours of laboratory per week.

Prerequisites: CHEML 232

Co-requisite: CHEM 233

Credits: 1

CHEM 241: Organic Chemistry

This course is an introductory organic chemistry course for students with a good background in chemistry. It will emphasize the fundamental concepts of organic chemistry including Structure, nomenclature, functional groups, bonding, isomerism, stereochemistry and properties of organic compounds. This course will discuss synthesis and reactions of alkanes, alkenes, alkynes, alcohols, ethers, alkyl halides and aromatics. Mechanism of addition, elimination, substitution, radical and electrophilic aromatic substitution reactions will be covered in this course. There is a required, weekly lab for the course, in addition to lectures.

Co-requisite: CHEM 233

Credits: 3

ENV 202: Introduction to Earth Science

Earth Science is an interdisciplinary field that involves life sciences, physical sciences, engineering, social sciences, and policy. The primary goal of this course is to survey (a) the core fields, theories, and issues that make up Earth Science; and (b) the applications of Ecological Science to global issues such as biodiversity conservation, energy and food production, climate change, pollution, and human health. We will use both textbook and real world examples from the scientific literature. The secondary goal of this course is to introduce you to creative inquiry, scientific research, and the ways in which science is translated for the public.

Prerequisites: SCI 102

Credits: 3

GEOL 232: Introduction to Geology

Geology imparts a uniquely broad perspective that incorporates science with history and development of civilization and culture. Geology uses the scientific method to explain natural aspects of the Earth – for example how mountains are formed or why oil resources are concentrated in some rocks and not in others. This course gives a general survey of basic processes involved in the formation of mountains and rivers. Hence one gets to know the Earth that we live on a bit better and also understand the environmental concerns that also enables students to understand the mother Earth, a little bit better: Origin of the Earth-Wegener's theory of Plate tectonics, matter and minerals, magma igneous rock, volcanoes, weathering, river, streams, sedimentary rock, lithification, metamorphic rock, earthquakes, tsunamis, types of soil, hydrocarbon and its prospecting, satellite and Radar maps, analyzing and understanding maps, and climate change - its impact on the environment. There will be supplemental field trips to augment the understanding and identification of rocks and their physical and chemical properties.

Prerequisites: SC1 102

Credits: 3

GEOL 248: Physical Geology

Origin of the Earth-Wegener's theory of Plate tectonics, Matter and Minerals, Magma, Igneous rock, Volcanoes, Weathering, river, streams, sedimentary rock, lithification, metamorphic rock Earthquakes, Tsunami, rock and soil mechanics, land subsidence and ground water as well as more appropriately hydrocarbons and its prospecting. The course will also discuss the engineering properties of Earth materials affect the geological processes and civil works, Geotechnical evaluation of soils, rocks, and the mitigation of geological hazards like Earthquakes, landslides, and resource evaluation. There will be supplemental labs to explain the physical and chemical properties, which helps in the identification of the mineral.

Prerequisites: PHYS 232, PHYSL 232

Credits: 3

GEOL 432: Special Topics in Geological Sciences: Energy, Environment, and Climate Change

The course gives an insight into population growth (7 billion +) and energy consumption, fossil based energy and renewable energy. The current consumption of energy and the increasing demand for more energy makes an impact on the environment. The effective use of natural resources requires some clear understanding of the physical principles that are connected with all other available sources of energy like wind, solar and nuclear. The course analyzes emissions of anthropogenic gases and global warming and the current global environmental policy (Kyoto and Durban summit). A clean inexhaustible energy source is needed for a more sustainable development.

Prerequisites: GEOL 232

Credits: 3

MTH 101: College Algebra

This course studies the behavior and characteristics of functions from graphic, numeric, analytic and applied perspectives, including general polynomial, rational, exponential, and logarithmic functions. Focus is also on systems of linear equations and/or inequalities in several variables with an emphasis in matrix solutions.

Prerequisite: None

Credits: 3

MTH 112: Mathematical Concepts

Mathematical Concepts is a course designed to appeal to the philosopher of math, as well as the doer of math. The course opens with the specific instance of Pascal's Triangle and looks at its universal application. Main topics in the course include: Number Theory, Logic, Geometry, Finance, and Probability. MTH112 focuses not only on the "how" of the math, but also the "why" - why does math work?

Prerequisite: MTH 101

Credits: 3

MTH 121: Business Math

This course extends and applies mathematics skills in algebra and introductory calculus to applications in finance, economics and business. Topics include graphs, business vocabulary, the use of spreadsheets, calculating markups and markdowns, supply and demand, interest and investments, payroll and depreciation, applications of linear programming, elasticity of demand and marginal analysis.

Prerequisite: MTH 101

Credits: 3

MTH 133: Pre-Calculus

Pre-calculus continues the study of functions begun in College Algebra. The first part of the course will focus on the applications of previously studied functions: polynomial, rational, exponential, and logarithmic. Then, the course will turn toward the study of Trigonometry. This will include basic trigonometric relationships, the characteristics and properties of trigonometric functions, their inverses, trigonometric identities, and solving trigonometric equations. Conic sections and an introduction to the difference quotient will round out the

course.

Prerequisite: MTH 101, or placement in MTH 133

Credits: 3

MTH 232: Calculus I

This is the first of a three-semester series in Calculus for Engineers, Scientists, and Applied Mathematics. This course covers topics from differential calculus with an introduction to integration. The course studies limit and continuity of functions, the Intermediate Value Theorem, derivatives, differentiation rules, Rolle's Theorem and the Mean Value Theorem, applications of differentiation, antiderivatives, definite integrals, and the Fundamental Theorem of Calculus. Applications of derivatives to physical problems, related rates, maximum-minimum word problems and curve sketching are considered.

Prerequisite: MTH 133,

Credits: 3

MTH 233: Calculus II

This is the second of a three-semester series in Calculus for Engineers, Scientists, and Applied Mathematics. Course topics include: inverse functions, technique and applications of integrations, polar coordinates, sequences and series. By the end of the course students will have firmed up their proficiency at basic differentiation and integration, be able to solve simple differential equations, be able to apply integration to find curve lengths, areas and volumes, will have learned more sophisticated integration techniques, gained an elementary understanding of series, and be able to solve problems involving conics.

Prerequisite: MTH 232

Credits: 3

MTH 331: Calculus III

The final course in the three-semester introductory calculus sequence, MTH331 focuses on geometry of functions of several variables, partial differentiation, multiple integrals, vector algebra and calculus (including Theorems of Green, Gauss and Stokes), and applications. Upon successful completion of this course, students will have a solid foundation for the further study of engineering, science, and mathematics.

Prerequisite: MTH 233

Credits: 3

MTH 235: Discrete Mathematics

This course equips students with critical thinking skills and prepares them on abstraction in Mathematics directly related to information technology and computer science. It covers the following topics: Logic, relations, functions, basic set theory, accountability and unaccountability, mathematical induction and recursion, combinatorial and discrete probability, graph theory, and mathematical proof techniques.

Prerequisite: MTH 101 or placement test in MTH 133

Credits: 3

MTH 332: Ordinary Differential Equations

This is a course on Ordinary Differential Equations (abbreviated ODE) which introduces the fundamental concepts and techniques for solving ordinary differential equations. It prepares students to solve several types of differential equations appearing in the study of engineering, science, and mathematics. Topics include: exact ODE, separable ODE, linear ODE, constant coefficients ODE, undetermined coefficients method, variations of parameters method, and series solutions method. In addition, this course includes The Laplace Transform and its applications to solving differential equations.

Prerequisite: MTH 233

Credits: 3

MTH 340: Linear Algebra

This course introduces the main ideas and techniques in linear algebra together with their main applications to Engineering and applied sciences. It starts with linear systems and develops the concepts of a row space, column space, and null space of a matrix. Matrix algebra is studied in details together with determinants of square matrices. Then the general notion of a vector space is introduced together with the concepts of linear dependence and independence, basis, and dimension. The course culminates with the introduction of linear transformations between Vector spaces together with their matrix representation and properties.

Prerequisite: 30 credits

Credits: 3

MTH 410: Introduction to Mathematical Analysis

This course is designed to introduce students to real analysis and give the background needed for advance real mathematical analysis. Topics covered in this course include: The real numbers, completeness, sequences, some basic topology of the real line, compact sets, Heine-Borel theorem, continuous functions, intermediate value theorem, uniform continuity, extreme values, differentiation, mean-value theorem, and Taylor's theorem.

Prerequisite: MTH 331

Credits: 3

MTH 432: Partial Differential Equations

This is an introductory course to Partial Differential Equations with emphasis in finding explicit solutions of linear Partial Differential Equations. The course focuses on analytical methods used to obtain such explicit solutions such as the separation of variables, Fourier transforms, Green's functions, the method of characteristics and symmetry arguments. This course is strongly oriented toward applications to different areas of human activity, but mostly related to the physical sciences. Occasionally the course may touch upon the existence and uniqueness of solutions of partial differential equations and some other important theoretical issues. The course uses repeatedly specific examples of partial differential equations, such as Laplace's and Poisson's equations, the heat/diffusion equation, and the wave equation.

Prerequisite: MTH 331, MTH 332

Credits: 3

PHYS 122: Descriptive Physics

PHYS 122 introduces students to the current state of science especially Physics. The course starts by discussing the historical development of science and physics from the Archaic Period and aims to finish with the current state of science and technological development as well as the anticipated future directions of science. The course also discusses modern issues related to science such as the ethics of science, pseudoscience and the denial of science and scientific methods. This course is mainly descriptive as such mathematics and calculations are kept at minimum, therefore only simple algebra is required.

Pre-requisite: None

Credits: 3

PHYS 224: Physics for the Life Sciences

PHYS 244 is the lecture component of an integrated lecture-laboratory course on introductory physics for the life sciences. This course is a one semester Algebra-based introduction to Physics. The topics covered will be particularly beneficial to students of Biological or Health Sciences. However, the course is open to anyone who fulfills the pre-requisites. Topics covered focus on concepts of importance for the understanding of living systems. These include: Solids and Fluids, Vibrations, Waves and Sound, Electromagnetic Waves and Optics, aspects of Thermal Physics, Quantum and Nuclear Physics. This course is not intended nor should it qualify for credit for Engineering majors, who should instead take the Calculus-based sequence PHYS 232 and PHYS 233. Pre-requisites: SCI 102, MTH 133

Co-requisite: None

Credits: 3

PHYS 224L, Physics for the Life Sciences Laboratory

PHYSL 244 is the lab component of an integrated lecture-laboratory course on introductory physics for the life sciences. The lecture component of the course, PHYS 244, is a co-requisite for this laboratory course and should be registered separately. This course offers a set of laboratory experiments that allow the students to apply the concepts covered in the PHYS 224 course. Each experiment is designed to incorporate new elements on measurement, data collection, error calculation and graphical analysis in illustrating basic physical concepts of relevance to the understanding of living systems. These include fluids, thermodynamics, and optics.

Pre-requisites: None

Co-requisite: PHYS 224

Credits: 1

PHYS 232: Calculus-Based Physics I

This course is an (calculus-based) introduction to Newtonian Mechanics. The course topics include introductory kinematics, dynamics, elasticity, Newtonian gravitation, fluids, vibrations and waves, and classical thermodynamics. PHY 232 is also the first in a two-semester sequence required for all Engineering majors. There is a required weekly lab course which has to be taken in conjunction with this course.

Prerequisite: MTH 232

Credits: 3

PHYSL 232: Calculus-Based Physics I Lab

The course is designed to introduce students to perform experiments in mechanics, which will reinforce the physical laws and principles inherent in the study of mechanics taught in its

companion course. Each experiment is designed to incorporate new lessons on measurement, data collection, error calculation or graphical analysis in addition to illustrating the physical principles. Topics include motion, force, acceleration, energy and waves.

Prerequisite: MTH 232

Co-requisite: PHYS 232

Credits: 1

PHYS 233: Calculus Based Physics II

This course aims to provide a firm understanding of the basic principles of electricity, magnetism and electrodynamics. The main emphasis is on electromagnetism as it is the underlying theory for modern physics. A secondary emphasis is on applications of electricity and magnetism and its role in circuits, electronics and laboratory instruments. At the conclusion of the course the student should be comfortable with the use of Maxwell's equations in integral form, and be aware of the differential equation form. The physical phenomena connected with producing electricity should be thoroughly understood. The associated laboratory will demonstrate some of the material covered in the lectures, familiarize the student with electrical measurements, techniques and introduce new materials.

Prerequisite: PHYS 232, PHYSL 232, MTH 232

Credits: 3

PHYSL 233: Calculus Based Physics II Lab

This second course of Physics experiments is designed to introduce students to perform experiments in Electricity, Magnetism, Electromagnetism and Optics. It intends to reinforce the physical laws and principles inherent in the study of Electromagnetism taught in its companion course. Each experiment is designed to incorporate new lessons on measurement, data collection, error calculation or graphical analysis in addition to illustrate the physical principles.

Prerequisite: PHYS 232, PHYSL 232

Co-requisite: PHYS 233

Credits: 1

SCI 102: Physical Science

The purpose of this course is to introduce students to fundamental concepts of physical sciences: Physics, Chemistry, Earth Science and Astronomy. This course is intended to develop the knowledge and skills necessary for students who wish to continue their studies in engineering, the sciences, and applied mathematics. The course builds on those mathematical and scientific method skills the students already gained in previous courses.

Prerequisites: MTH 101 or placement in MTH 133

Credits: 3

SCI 203: Astronomy

The study of astronomy can be both awe inspiring and humbling. In this course, we are sure to experience both emotions, as we investigate some of the earliest thoughts on the structure and order of the universe up till modern times. The course will begin with a study of the cosmologies of Plato and Aristotle. Then we will look at two contrary theories posed by Ptolemy and Copernicus. It is at this point, the meaning of "Copernican Revolution" will begin develop; further insight into this will be developed as we study the works of Kepler,

Galileo, and Newton. From this point, the course transitions to modern astronomy. We will work our through a workbook which will develop the knowledge and skills necessary to understand the current theories about our universe and where it is going. Finally, the course concludes with two great thinkers of the 20th century: Stephen Hawking and Albert Einstein.

Prerequisites: SCI 102

Credits: 3

SCI 204: Impact of Materials on Society

This course will examine the mechanical, physical, chemical, and manufacturing properties of different materials and then investigate how these properties intersect with cultural variables like gender, race, power/authority, religious beliefs, values, and financial and political systems to shape human civilization. It will explore the connections between the discovery of new materials, from clay to silicon, to social transformations worldwide. To see these connections, the course will fuse basic concepts in materials science and engineering with perspectives and methods from anthropology, history, literature, and sociology. By connecting lessons from the past to the inventions of cutting-edge materials, we will discuss the future social impacts of new materials in medicine, construction, transportation, clean energy, sports, and other areas. This course will explore how materials-based technologies and materials failures shape our society, as well as how society shapes engineering innovations.

Prerequisites: SCI 102, ENG 101

Credits: 3

SCI 208: Water in Iraq: Past, Present and Future

This course will introduce students to water resources in Iraq. Through case studies and selected primary readings, we will examine how water resources of the Tigris, Euphrates, and Shatt el Arab rivers have been used in the past, how they are used now, and how current management practices and climate change could impact their availability in the future. The course will include comparative case studies on the physical and environmental characteristics of the world's major river basins and how they compare to the Tigris/Euphrates. We also will discuss the roles of science in negotiation and decision-making within the context of water resources and diplomacy.

Prerequisites: SCI 101, SCIL 101

Credits: 3

SCI 213: Selected Topics: Genetic Ancestry & Human Migrations

Who are we and where did we come from? Historians, archaeologists, philosophers, linguists, theologians and classicists have been asking and answering this basic question for centuries. But only since the model for DNA was published in 1953 have geneticists been able to seriously delve into the mysteries of human ancestry, migration, and domestication. This Core Option will allow students who have studied Life Science and Human Civilization to cross the boundaries between these two fields to learn how the DNA molecules inside every human cell tell stories of human ancestry and migration from Africa to the farthest reaches of the globe. In this course we will learn what DNA can, and cannot, teach us about who we are, where we came from, and which plants and animals we brought with us on our journeys. And finally we will learn how to think about human societal groups that define themselves by genetics, culture, language, and philosophy.

Prerequisites: SCI 101, SCIL 101 and CIV 101

Credits: 3

SCI 240: Physical and Ecological Processes

This course will provide a theoretical and hands-on introduction to ecological concepts using the interactions between local flora and fauna and the abiotic environment along environmental gradients. Students will be introduced to current ecological thinking through readings and discussion, including primary literature. They will also participate in laboratory exercises to introduce them to local flora and fauna and the habitats (terrestrial, lakes and riverine) in which they are found.

Prerequisites: SCI 102

Credits: 3

SCI 301: Water: Science, Policy, and Health

This course will examine the processes by which scholarly research is used to create and improve water policy, with the ultimate goal of improving human health. Effective policy must be grounded in robust research, so the course will begin with a review of water science and toxicology. Later, emphasis will shift to developing critical skills for analyzing regimes of water legislation and regulation. Attention may also be given to the emergence of international environmental standards and agreements. Lessons learned will be applied to the national context: what policies may work in Iraq and the KRG?

Prerequisites: SCI 101, SCIL 101, and at least one of the following: POS 305 or SCI 208 or Instructor Permission.

Credits: 3

SCI 323: Freshwater Science

This course focuses on the biological, chemical, and physical components of freshwater ecosystems. Through lectures, laboratories and field trips, students will learn techniques and technologies for studying freshwater ecosystems and how these ecosystems are altered by human activity. Through weekly field trips and lab exercises, students will collect, identify and classify aquatic organisms; measure water chemistry; and, characterize physical features of streams, rivers and reservoirs. They also will learn about applied research techniques, such as biotic inventories, assessments of water quality, wetlands delineation, and stream restoration.

Prerequisites: SCI 102

Credits: 3

STT 201: Statistics

This course studies the fundamentals of statistics, including probability, the laws of chance, statistical measures (mean, mode, median, scatter, standard deviation, skewness) and descriptive statistics (with attention to frequency distributions, and the use and interpretation of tables, graphs and charts), statistical distributions (Binomial, Poisson, Normal), statistical analysis (with attention to correlation analysis and statistical significance), and statistical inference (with attention to sampling techniques, confidence levels and sample size). Students will be introduced to the differing uses of statistics: how natural and social scientists, businesses and governments use statistics in their own ways, for their own purposes.

Prerequisite: MTH 101

Credits: 3

STT 342 Engineering Statistics

Statistics for Engineers introduces the student to the use of basic discrete and continuous probability models, simple functions of random variables, statistical inference, construction of statistical models, and basic experimental design techniques including the use of modern statistical computational tools. This course is an introduction to the probabilistic and statistical methods that are part of the modern engineer's toolbox.

Prerequisite: MTH 331

Credits: 3

The Department of Social Sciences

CIV 101: Civilization I: The Ancient World (History)

This course introduces students to the chronological scope of human history from the agricultural revolution to 1450. Students will examine the social, cultural, technical, economic, and political transformations that have shaped world civilizations. The course emphasizes the development of necessary university-level skills such as critical thinking and clarity of expression. Students will be introduced to critical reading of primary texts.

Prerequisites: R 100 and W 100 (or direct entry into UG)

None Credits: 3

CIV 203: Civilization III: The Ancient World (Humanities)

This seminar offers students a selective introduction to the aesthetic, intellectual, social, and cultural developments of world civilization before 1450 through a series of in-depth encounters with primary texts. The course will include readings from a variety of humanistic disciplines with an emphasis on global reach and cross-cultural comparison. Students will develop skills in critical reading and will write short papers.

Prerequisites: 30 earned credits

Credits: 3

CIV 204: Civilization IV: The Modern World (Humanities)

This seminar offers students a selective introduction to the aesthetic, intellectual, social, and cultural developments of world civilization since 1450 through a series of in-depth encounters with primary texts. The course will include readings from a variety of humanistic disciplines with an emphasis on global reach and cross-cultural comparison. Students will apply their skills in critical reading and argumentative writing to the composition of a final paper.

Prerequisites: CIV 203

Credits: 3

ECO 201: Principles and History of Economics

This course is an introduction to the fundamental concepts necessary for understanding spontaneous orders and phenomenon of human action but not human design. This course takes the form of a survey of selected important thinkers in economics, including such individuals as Smith, Mill, Malthus, Marx, Keynes, Friedman, Hayek, and Buchanan. The evolution of broad trends in economic thinking is thus taught sequentially, with reference to original texts and historical figures. It focuses on major trends in the field and foundational concepts like gains from trade and specialization, trade-offs and opportunity costs, and the importance of incentives. This course counts as a social science general education course.

Prerequisites: R 100 and W 100 (or direct entry into the UG program)

Credits: 3

ECO 210: Introduction to Economics

This course is designed as an introductory economics course for students who want to understand the essentials of economics. It aims to teach the basic concepts and analytical tools of economics as well as economic logic in order to help students to understand the economic issues and events occurring around them. The course covers the basics of micro and macroeconomics, but focuses more on macroeconomic topics. By the end of the class, students will gain a basic understanding of the main principles of economics, such as: how companies operate, how markets work, GDP and economic growth, indicators of economic performance, how government policies affect markets and economic performance, why prices go up and

inflation rises, why recession and unemployment occur, and comparative advantage and trade.

Prerequisites: None

None Credits: 3

ECO 211: Introduction to the International Political Economy

"Global" is an adjective currently associated with nearly every possible field of knowledge or industrial sector, as well as with policy and governance. What exactly do we mean when we talk of "Global economy", or "global governance"? The answer lies in the analysis of historical trajectories and results of political decisions that shape our society, ways of production, economic welfare, healthcare and education in very specific ways. This introductory course proposes a multidisciplinary perspective on the evolution of the international political economy and mutually constitutive relation with national politics. Based on insights from political science, sociology, anthropology, economics and history, we will study what may appear as rather technical issues in macroeconomics. We will cross the boundaries between economics and politics and move from the national to the international arena and back. Students will gain familiarity with social science theory and economic frameworks on some of the most fundamental tensions in the global economy, in particular from the developing field of international political economy.

Prerequisites: 30 earned credits

Credits: 3

ECO 403: International Political Economy

This course surveys the important and contemporary issues and institutions of international trade and finance, and discusses the effects of economic / financial globalization from the International Political Economy (IPE) standpoint without going into the details of economic theories. It illustrates how international trade and financial matters are political as well as economic and financial in nature, and how trade and finance policies as outcomes of political competition create winners and losers. The range of topics covered include the WTO and the world trade system, trade politics and trade blocks, trade and development, politics of multinational corporations, the international monetary system and IMF, effects of foreign exchange rate policies on trade and finance, as well as financial crises. The class also teaches IPE analytical tools and theoretical explanations that help to analyze and explain international trade and economic relations. This course counts as an international studies major course.

Prerequisites: ECO 221 or ECO 210,

Credits: 3

GEO 303: World Geography

This course will provide a broad overview of the major regions of the world with emphasis on the increasing interconnectedness of people and places due to the influence of globalization on world trade, travel, communication, culture, and the natural environment. It will cover the distributions, traits, and processes of the Earth's peoples and landscapes through the perspective of the spatial relationships of natural environments and human societies.

Prerequisites: 30 earned credits

Credits: 3

GOV 399: Special Topics in Government.

Special topics in Government. Course content varies. Chair approval may be needed if this course code is used for study abroad programs

Prerequisites: 30 earned credits (or chair's approval)

Credits: 3

GOV 401: Policy Analysis

This course in public (or government) policy analysis and decision-making provides the basic frameworks and tools for policy design and development. In particular, we will follow a process for policy analysis to enable you to: identify policy problems and/or issues, identify data sources, establish criteria to analyze a policy, assess alternative policies, select among policy alternatives and, finally, communicate the policy solution.

Prerequisites: 45 earned credits

Credits: 3

GOV 402: Corruption

Corruption is seen as undermining national and global development and the legitimacy of governments and businesses. Corruption could also be a main obstacle for a country's transition to democracy. This course will focus on defining corruption and identifying its causes, types and consequences, as well as approaches and policies of combating corruption.

Prerequisites: 45 earned credits

Credits: 3

HST 103: History of Medicine

This course explores the development of medicine in the West from the ancient world through to the 21st century. Over the course of the semester, the following topics will be examined: the history of the evolution of the concepts of health, illness, and disease causation in the West over the past three millennium; the historical development of Western biomedicine and the modern medical sciences; the development of public health from the Roman empire through to the twentieth century; the histories of various forms of medical (healthcare) practitioners including physicians, surgeons, apothecaries (pharmacists), midwives, nurses, and dentists; and the histories of medical institutions over the past millennium focusing on hospitals and asylums. This course serves as a Social Science general education course.

Prerequisites: R 100 and W 100 (or direct entry into the UG program)

Credits: 3

HST 104: History of Science

This course explores the history and historiography (writings by historians and other scholars) of science from the ancient world through to the twentieth century. Over the course of the semester, the following topics will be examined: the history of the evolution of the sciences of astronomy, mathematics, cartography, navigation, along with engineering and construction, in the West and Middle East over the past three millennium; the historical development of Western cosmology; the complex historical relationships between astrology and astronomy, and alchemy and chemistry; the importance of the Greco-Roman worlds in laying the foundations for Western science and mathematics; the crucial roles played by scientists, physicians, philosophers, and scholars in the Islamic world in preserving the knowledge of the ancient world and building upon it during the medieval period; the continuation of science during the Middle Ages and the role played by the Church and universities; the impact of the Renaissance on the development of science in Europe; the histories of the Scientific Revolution, the Chemical Revolution, and the Darwinian Revolution; and the efforts to recalculate the age of the earth and the birth of modern geology in the eighteenth and nineteenth centuries. This course serves as a Social Science general education course.

Prerequisites: R 100 and W 100 (or direct entry into the UG program)

Credits: 3

HST 201: History of the World since 1300

This course takes you on a voyage into the past. Like many of the explorers you will meet

along the way, you will travel across time from when Chinggis Khan's armies conquered Beijing and Baghdad in the 13th century and the Black Death scoured the Eurasian world to the global nomads and pandemics of our day. Do earlier modes of globalization help us to understand our own age? How can we understand old and new global divides? The dynamics of combinations, differences, and divisions are many: spiritual, economic, environmental, ideological, military, and political. The aim of this course is to understand the big forces that pull the world's parts together as well as those that drive them apart.

This course is unique not just in its scale and scope. We learn global history globally. This course connects you to students elsewhere in the world. Across 28 locations around the world, between Vietnam and Lebanon, between France and Nigeria, between Argentina to Afghanistan, students are taking the same course simultaneously and posting and sharing their ideas on the course Gallery site. This course serves as a Social Science general education course. Prerequisites: R 100 and W 100 (or direct entry into the UG program), as well as Chair's Approval if the student hasn't completed CIV 101
Credits: 3

HST 202: American History

This course provides a broad and chronological introduction to the study of American History from earliest times (discovery, conquest, colonization, Revolution, Constitutional Crisis) through the nation's formative years (Civil War, Reconstruction, westward expansion, embrace of imperialism) and age of global expansion and social and diplomatic conflict (both world wars, the Civil Rights Movement, Cold War, response to global terrorism). This course counts as a Social Science general education course.

Prerequisites: R 100 and W 100 (or direct entry into the UG program)
Credits: 3

HST 240: Introduction to Archaeology

Mesopotamia is one of the oldest civilizations of the world. Because of its strong emphasis on oral traditions, there are many historical gaps in our knowledge from written sources alone. This course will consider the major trends in Mesopotamian prehistory and history through a wide variety of primary sources, including texts, art objects, monuments, and cities. This course counts as a Social Science general education course.

Prerequisites: R 100 and W 100 (or direct entry into the UG program)
Credits: 3

HST 320: History of the Middle East

This course is a survey of the development of social, cultural, and political life in the Middle East from the beginning of Islam to the present. The class will examine key problems in Middle Eastern history, investigate a wide variety of primary sources, examine works of art and architecture, and discuss critical issues in the history of the Middle East. Topics include: the Middle East before Islam, the development of Islamic societies and cultures, science and learning, daily life in the medieval and Ottoman periods, Ottoman hegemony, imperialism and revolution, World War I and the peace settlement, state formation, and the rise of nationalism and religious fundamentalism.

Prerequisites: Freshman 2 (15 earned credits)
Credits: 3

HST 321: Islamic Religious Traditions

In this course we will study the faith and practice of Islam: its historical emergence, its doctrinal developments, and its interactions with various world cultures. The course is

organized roughly chronologically, beginning with pre-Islamic Arabia, the Prophet, the early community, the spread of Islam, philosophical and pedagogic achievements, colonialism, and nationalism. Towards the end of the course, we will examine more contemporary questions regarding gender, minorities, media and finally, Islam in the West. The rationale for this course is to expose students to the diversity which exists within the Islamic tradition. The course emphasizes the role of interpretation, culture, and historical influences on popular practices and political ideas.

Prerequisites: 30 earned credits

Credits: 3

HST 399: Topics in History and Area Studies

Special topics in History and Area Studies. Course content varies. This course counts as an international studies major course, and for compatible minors.

Prerequisites: 30 earned credits

Credits: 3

HST 421: Religion in Iraq

This course offers a comparative overview of Iraq's religious history. It is organized roughly chronologically and discusses all the major religious groups including ancient Mesopotamian religions, Judaism, Christianity, Sunnism, Shi'ism, Sufism, Yezidism, Ahl al-Haqq, and the Shabak. It concludes by discussing religion in 20th century Iraq and the roots and effects of contemporary sectarianism. The course will cover religious laws, rituals, doctrines, and gender issues. After having taken this course, students will be able to think critically about religious fundamentalism and sectarianism in Iraq and Iraqi Kurdistan today.

Prerequisites: 45 earned credits

Credits: 3

HST 441: Anthropology of Empires

This class will evaluate different approaches to study of politics as the foundation for a cross-cultural comparative study of empires. The class will begin with approaches to the study of authority more generally, and then consider the different models of ancient states. In the second phase, the class will approach the daily operations of empire from the perspective of economy and subjectivity. In the final phase, the class will consider potential limits to authority in the ancient and modern world.

Prerequisites: 45 earned credits

Credits:

HST 451: Women in Ancient Greece

The study of women's roles and daily lives in ancient societies not only deepens our understanding of social history, but also focuses our attention on the categories of analysis we use for all aspects of historical inquiry. Asking about women's roles in the military history of Archaic Greece, for example, expands the investigation from the battlefield to the wider socio-economic framework of the region. Considering women in the economic nexus of the Greek Hellenistic era draws our attention to gendered crafts such as weaving; in Classical Corinth, the role of female temple prostitutes illuminates the political-religious system. After having taken this course, students will be able to think critically about women and gender as a historical force in the ancient world. The framework of this course is the traditional historical survey with an emphasis on gender as a useful category of historical inquiry. Within each historical period, issues of gender shape the narration. This is not an "add-and-stir" history of women (i.e., simply inserting females unreflectively into categories of political and military history), but a gendered historiographic view of ancient Greek society.

Prerequisites: 45 earned credits

Credits: 3

HST 499: Topics in History and Area Studies

Special topics in History and Area Studies. Course content varies.

Prerequisites: 45 earned credits

Credits: 3

IR 301 / POL 302: Introduction to International Relations

This course is an analysis of the relations among sovereign political communities. The relationship between war and diplomacy, along with the objectives, strategies, and instruments of foreign policy are examined. The course deals with issues such as the causes and justification of war and considers concepts such as the balance of power, collective security, treaty organizations, and regional organizations. Case studies will be employed to analyze and compare the foreign policies of contemporary regional and major powers.

Prerequisites: 30 earned credits

Credits: 3

IR 302: Introduction to Diplomacy

This course will introduce students to the foundational concepts of diplomacy as well as recent trends in the field.

Prerequisites: 30 earned credits

Credits: 3

IR 303: Decolonizing International Relations

Conventional international relations theory derives its core concepts primarily from Western political thought. Political relations in most of the world, however, are based on ways of imagining and acting that are constituted through different and multiple languages of political, economic and social thought. Texts (classical as well as contemporary) and political issues from other parts of the world offer us a different entry point into worlds shaped by diverse imaginations of justice, power, authority and order. This seminar seeks to rely on a close reading some contemporary texts and some current political problems to rethink and rewrite global politics.

Prerequisites: 30 earned credits

Credits: 3

IR 420 / POL 420: International Relations of the Middle East

The objective of this course is to introduce students to the international relations of the states of the Middle East from the perspectives of the International Relations Theory and International Political Economy disciplines. The course will survey Middle Eastern history, with a special emphasis on the post-WWII period, as well as demographic, economic, and political facts. It will focus on the region's interrelations with the outside world as well as on analytical approaches in order to gain a deeper understanding of the nature and content of Middle East international relations.

Prerequisites: 45 earned credits

Credits: 3

IR 450: International Organizations

Students should consult LAW 399 for details about this course.

IST 301: An Introduction to International Studies

This course introduces students to the key concepts in the field of international studies. This course is required for all international studies majors as well as those seeking to obtain a minor

in international studies.

Prerequisites: 30 earned credits

Credits: 3

IST 330: Kurdish Diaspora

What constitutes national identity? And how does (national) identity form itself in diaspora? What happens when both forced and voluntary migration relocates local inhabitants to countries across the globe, and how does it transform and re-creates identity, cultural practices, and social relations? What power dynamics are at play, both in country of origin and host country, and how do they interact with each other? Zooming in on narratives of Kurdish communities both locally and globally, how does national identity intersect with religious identity, and how do experiences of trauma, migration, or exile affect these identities? In this course, students will engage with different aspects of identity formation, and critically study and analyze the effects of (forced) movement and violent histories upon those identities. It aims to give students both the lenses through which (national) identity formation can be understood and analyzed, and the tools through which students can apply their knowledge in written assignments.

Prerequisites: 30 earned credits

Credits: 3

IST 410: International Studies Capstone

This course is a seminar devoted to the careful study of democratic theory which ties together the various disciplines learned throughout the International Studies major: history, political philosophy, ancient and modern politics, and economic theory and practice. Students bring these matters to bear to gain a fuller understanding of democratic theory and the philosophy of liberty. A thesis that discusses some aspect of these issues and their relevance for an emerging free, prosperous and democratic Iraq will be required. This course is required for all international studies majors.

Prerequisites: 75 earned credits

Credits: 3

IST 411: Social Sciences Internship

This course is designed for major and minor students in International Studies to gain real work experience before their graduation. An IR student can apply for an internship, but they must demonstrate that their internship relates to their major, so chair's approval is needed.

An internship allows students to gain meaningful on-the-job experience in an organization related to international studies including non-governmental organizations, political organizations, media, international organizations, and non-profit businesses.

Enrolled students are expected to have opportunities to experience a realistic working environment where they work with an organization under the supervision of an external mentor. The internship should directly relate to the potential career of IS graduates (IR with chair's approval).

Prerequisites: 75 earned credits

Credits: 3

LIT 403: Literature and Politics

This course is an examination of selected works of literature that illuminate the significant questions of political and social life. The course focuses on great artists and writers who have explored the nature of human beings as it relates to the key questions, problems, and realities of politics. This course counts as an international studies major course.

Prerequisites: ENG 203

Credits: 3

LAW 101: Human Rights

This course covers the fundamental principles that govern the international human rights law system. It covers the origins and development of the concept of human rights from the ancient civilizations to the contemporary human rights law. It examines the major instruments and initiatives that contributed to the development of human rights after the First and Second World Wars. It also covers the role of international and regional organizations in the protection of human rights including the United Nations, the African Union and the European Community. It examines the responsibility of states towards such rights and monitoring them in case of violation with the aim of rectifying any such violation. Further, it covers how the Iraqi Constitution examined the issue of rights and liberties and comparing it to the recognized international standards. Finally, it covers the role of Iraqi institutions designed to strengthen the status of human rights in Iraq including the Independent Commission of Human Rights.

Prerequisites: None

Credits: 3

LGS 210: Introduction to the Laws of Iraq and Iraqi Kurdistan

This course provides an overview of the law and legal system of Iraq, providing theoretical and practical insights into the nature and function of law. This course will analyze the role of law in a social, economic, political and historical context, providing students with not only knowledge of legal rules but also a critical understanding of the operation of rules in society. This is a required course for the Minor in Law. For international studies majors not taking a minor in law, this course counts as a political science IS major course.

Prerequisites: None

Credits: 3

LGS 225: Introduction to the Commercial Laws of Iraq and Iraqi Kurdistan

This course provides an overview of commercial law, according to the legal systems of Iraqi Kurdistan, and of the Republic of Iraq. It analyzes how the context—social, political, and historical—affects commercial law, and considers how commercial law shapes the economy. Among the topics we will cover are commercial law, labor law, corporate law, contracts, and other legal instruments essential to conducting business in Iraq. Students taking the Minor in Law take either this course or LGS 220. Students may not receive credit for both LGS 220 and LGS 225. For international studies majors not taking a minor in law, this course counts as a political science IS major course.

Prerequisites: 45 earned credits

Credits: 3

LGS 230: Islamic Law

This course provides an overview of the basics of traditional Islamic law supported with a critical approach. It provides students with basic knowledge of the law-making process under the Islamic law. It covers each major sources of law including Quran and Hadith and other sources like Ijtihad and Qiyas. It also covers contemporary problems associated with the sources of law in modern times and the responses offered by mainstream Islamic institutions and scholars. In addition, the course analyzes the historical background of how these sources evolved in the early Islamic history and how political, cultural, and tribal norms affected the law-making process.

Prerequisites: 15 earned credits

Credits: 3

LGS 301: Thinking Like a Lawyer and Legal Outcomes

This course will provide an introduction into skills required to analyze materials from a legal perspective. It will focus on critical reasoning, legal terminology, legal writing, and supporting an argument.

Co-requisites: 15 earned credits (Law 30 earned credits)

Credits: 3

LGS 320: International Business Transactions

This course covers business transactions that are conducted between parties from different countries. For instance, it covers international sale transactions, foreign direct investment, and other business issues that concern international business. It also covers legal barriers to international business including enforcement of court decisions in different countries.

Prerequisite: 35 earned credits

Credits: 3

LGS 410: Iraq's Engagement with the World I: Public International Law in Iraq and Iraqi Kurdistan

This course provides an overview of the law and legal system of Iraq, with a focus on public international law. The course provides theoretical and practical insights into the nature and function of law. It will analyze the role of law in a social, economic, political and historical context, providing students with not only knowledge of legal rules but also a critical understanding of the operation of rules in society. Topics include: Statehood and Sovereignty, International Treaties and Organizations, Iraq and the KRG and International Criminal Law, Iraq and the KRG and International Human Rights, Iraq and the KRG and International Migration and Refugee Law. This course is a required course for the Minor in Law

Prerequisites: LGS 210, LGS 225, or 50 earned credits

Credits: 3

LGS 420: Iraq's Engagement with the World II: Private International Law in Iraq and Iraqi Kurdistan

This course provides an overview of the law and legal system of Iraq, with a focus on international commercial law. The course provides theoretical and practical insights into the nature and function of law. It will analyze the role of law in a social, economic, political and historical context, providing students with not only knowledge of legal rules but also a critical understanding of the operation of rules in society. Topics include: International Trade Law, International Commercial Arbitration, Oil and Gas in the International Sphere, Transnational Crime, International Contract and Choice of Law. This course is a required course for the Minor in Law

Prerequisites: 60 earned credits

Credits: 3

LGS 510: Legal Internship

This course will provide an exposure to the professional legal environment in Iraq. By working with local practitioners, the student will further develop the skills required to analyze materials from a legal perspective. The student will gain insight into what is required to practice law in Iraq and/or Iraqi Kurdistan.

Prerequisites: Any two law classes and 80 credits completed

Credits: 3

PHI 202: Philosophy and Ethics

This course is a survey of ethical thinking, including various theories, outlooks, and approaches.

The course places a strong emphasis on the question of what makes a good human being and good citizen. This course counts as a humanities general education course.

Prerequisite: R 100 and W 100 (or direct entry into the UG program)

Credits: 3

PHI 203: Introduction to Disability Studies

Disability is a human condition; disability is normal. At least 15% of the world's population is disabled, whether the impairment is physical, sensory, psychiatric, or cognitive; disabilities, furthermore, are often multiple. The meaning of any given impairment shifts from one context to the next, and varies depending on space and on time. Even in the same culture, the lived experience of disability depends on a host of factors such as one's gender, class, ethnicity, and so on. This class begins with an overview of the concepts of disability, then explores theory and lived experience in various contexts. This course counts as a Social Science general education course.

Prerequisite: R 100 and W 100 (or direct entry into the UG program)

Credits: 3

PHI 215: Medieval Islamic Philosophy

This course studies a collection of seminal texts in medieval Islamic philosophy. Our intent will be to emphasize the noun 'philosophy' rather than the qualifying adjectives. One may fairly claim that, when these authors were alive, philosophy was more alive among them than anywhere else in the world. The texts make a coherent conversation. The problems under dispute are examples of problems that, sooner or later, perplex any reflective thinker. This course counts as a humanities general education course.

Prerequisite: R 100 and W 100 (or direct entry into the UG program)

Credits: 3

PHI 216: Love and Friendship

This course will study philosophic and literary explorations of the nature of love and friendship through a close and careful study of an ancient text (e.g., Plato's Symposium) and a modern novel (e.g., Jane Austen's Pride and Prejudice). This course counts as a humanities **general** education course.

Prerequisites: R 100 and W 100 (or direct entry into the UG program)

Credits: 3

PHI 310: Disability Beyond the Classroom

This service-learning course consists of three parts. First, students learn the basics of critical disability studies: disability as a normal human experience that is shaped by any given culture; presently, disability, especially as it interests with gender, is a marginalized identity. In this first part, they also learn the skills of oral history documentation, including the ethical and technical aspects. Second, using the knowledge and skills they have learned, students engage with the OPDs (Organizations of People with Disabilities) in the community and conduct formal oral history interviews, which they then transcribe, translate, and edit. Third, the students present their work to the class and to the interview subjects. Students will develop research and critical thinking skills as well as a wider awareness of the community and of the factors that go into the oppression of people with disabilities, especially from an intersectional perspective, with an emphasis on sexism and ableism.

Prerequisites: 30 earned credits; PHI 203 is recommended.

Credits: 3

POL 201: Politics and Government

This course is a survey of various political ideas (liberalism, socialism, Marxism), political forms (democracy, authoritarianism, totalitarianism), and political institutions (presidential and parliamentary systems; federal and unitary systems). Some attention may also be given to questions related to leadership, political parties, interest groups, and media in politics. This course counts as a social science general education course.

Prerequisites: R 100 and W 100 (or direct entry into the UG program)

Credits: 3

POL 301: Comparative Political Systems

The course examines major political systems including those of a democratic, authoritarian, and totalitarian nature. Comparative politics is both a subject and a method in that the subject is the study of countries other than one's own while the method is to compare and contrast the politics of those countries in order to identify similarities and explain differences. This process often includes a study of the nature of political systems and thought with a historical focus and its attendant impact on the modern world. The course examines both the developed as well as the developing world while seeking to expand the student's understanding of modern political systems through comparison of political systems in selected countries.

Prerequisites: 30 earned credits

Credits: 3

POL 303: Political Philosophy

This course is a survey of the ideas of major ancient and modern political philosophers. Emphasis is placed on close reading and critical interpretation of selected primary texts. This course counts as an international studies major course. It is required for all International Studies students.

Prerequisites: 30 earned credits

Credits: 3

POL 305: The Political Economy of Petro-States

Oil is the single most valuable commodity traded in global markets. Oil revenues make up 75% of Iraq's GDP and more than 90% of the government revenues. This course introduces students to the petroleum industry and the political economy of countries endowed with petroleum resources. The class explores political and economic development in petro-states and the diverse experience of different countries around the world. Moreover, it analyses the structure and behavior of countries and governments whose economies depend on petroleum exports. The course also focuses on how and why oil wealth might be a curse, and what policy options are available to turn oil into a blessing. Special attention will be given to the Iraqi and KRG petroleum policies and industries.

Prerequisites: 30 earned credits

Credits: 3

POL 310: Research Methods in Social Science

This is an introduction to the techniques social scientists use to answer empirical questions. Students are introduced to the basic concepts and techniques that are used in political science research. This course will introduce students to the approaches to social inquiry, and descriptive and causal styles of research. The course is divided into three sections, which cover political scientific inquiry and research design, quantitative data gathering and analysis, and qualitative data gathering and analysis, respectively. This course counts as an international studies major course. It is required for all International Studies students.

Prerequisites: 30 earned credits

Credits: 3

POL 320: Politics of the Modern Middle East

This course focuses on the politics of the modern Middle East. In doing so, it seeks to apply the major concepts of the discipline of political science to the study of the contemporary Middle East. Hence the basic assumption of the course is that, while the politics of the Middle East may possess specific characteristics, it is not unique. The emphasis of the course is on comparing political phenomena across the region. The themes adopted in the course include some traditional fields of study, such as the military, ideology and the notion of legitimacy, together with some newer fields, notably political economy, civil society and gender. The influence of major inter-state conflicts and external factors on domestic politics will also be considered.

Prerequisites: 30 earned credits

Credits: 3

POL 321: Israel and Palestine

This course is a comprehensive survey of the origins and history of the Israeli- Palestinian conflict, and the ideology and beliefs that have animated the conflict (Zionism, Arab nationalism, Palestinian nationalism, and Islamism). We will study the origins of Zionism in the late 19th century, Palestine under British rule (1917-1948), the Arab-Israeli wars between 1948 and 1967, the rise of Palestinian nationalism, and the post-1967 period. The peace process since the 1993 Oslo Accords will be carefully examined. We will also focus on questions related to Zionist and Palestinian leadership, and the international dimensions of the conflict.

Prerequisites: 30 earned credits

Credits: 3

POL 350: European Union

The European Union (EU) is a unique (and uniquely important) international organization; it is also an atypical (and still incomplete) federation of states, a supra-national institution, and one of the largest bureaucracies in the world. Through decades of slow integration the EU today encompasses the most developed countries on the European continent, over half of the former Roman Empire, and some of the smallest countries in the world. It also brings together two former sides of the Cold War era (Western Europe and the Eastern Bloc). The EU as an institution aims to provide a common space for a variety of cultures, languages, economic differences and regional outlooks. This course will study how the division of Europe in East and West began to reverse after the Cold War and how members of the EU have moved ahead with their integration and supranational experiment whereby European law supersedes national law and a single currency is created.

Prerequisites: 30 earned credits

Credits: 3

POL 351: Politics of East Asia

This course is an overview of international relations of the East Asian region, which aims at broadly exploring the economic and political issues surrounding the Asia-Pacific rim. The course offers an overview of the existing scholarly discussion on international relations in East Asia. In doing so, students will critically review theoretical and empirical analyses, which are available in the existing literature. The first part of the course will examine respective theoretical and historical backgrounds of the countries in the region (Japan, South Korea, Taiwan, China, Southeast Asia, and western powers in the Pacific) with a focus on social issues, political and economic development during the post-Cold War period. The second part of the

course will cover various issues surrounding the region, including industrialization, globalization, economic interdependence, financial crises, natural disasters, nuclear proliferation, security, regionalism, nationalism, territorial disputes, and terrorism.

Prerequisites: 30 earned credits

Credits: 3

POL 399: Topics in Politics and Government

Special topics in Politics and Government. Course content varies. Chair approval may be needed for study abroad programs using this code.

Prerequisites: 30 earned credits (or chair approval)

Credits: 3

POL 403: American Government

This course is an examination of the theory, institutions, and practices of the national government in the United States. The constitutional basis of the federal system, the separation of powers, the protection of civil liberties, and the role of citizenship are studied with references to the founding principles of the United States, the Constitution, leading Supreme Court decisions, and other primary sources.

Prerequisites: 45 earned credits

POL 404: Leaders and Statesmen

This course involves two elements: a survey of ancient and modern thought regarding the nature of leadership and statesmanship; and, an investigation of particular leaders and statesmen through biography and autobiography. The course is intended to raise questions such as these: What is leadership? What is statesmanship? What kind of knowledge do leaders and statesmen possess? Should leaders be bound by ethical and moral principles? What is the role of ambition in political life?

Prerequisites: 45 earned credits

Credits: 3

POL 406: Contemporary Political Trends

This course is a consideration of the significant trends shaping the late twentieth century and early twentieth century. Topics vary.

Prerequisites: 45 earned credits

Credits: 3

POL 407: Political Economy of Tourism

The course provides an overview of the discipline of International Political Economy (IPE) applied to the analysis of tourism, as well as to practical case studies of the travel industry. The course enables students to analyze the impact of global tourism practices on local communities and within States at large, focusing on the intertwined nature of economic, social and cultural relations within travel destinations. A portion of the course is reserved to explore particular cases and applications of Tourism IPE in the context of renowned locations for alternative forms of tourism (Dark Tourism Sustainable Tourism, Pilgrimage Tourism), in East Asia and of KRG/Iraq and neighboring areas in the Middle East, dedicating attention to religious and cultural minorities, sustainable tourism practices and the relation between political and economic decisions in the development of the region's touristic potential.

Prerequisites: 45 earned credits

Credits: 3

POL 499: Topics in Politics and Government

Special topics in Politics and Government. Course content varies.

Prerequisites: 45 earned credits

Credits: 3

PSY 101: Introduction to Psychology

This course will introduce students to the field of Psychology. Via lectures, discussions, and activities, students will familiarize themselves with psychological concepts and apply them to their own lives. Attention will be paid to Socio-biology, Development, Perception, Personality, Industrial/Organization, Psychology, Educational Psychology, Psychopathology & Therapies, Language & Communication, Health & Stress, and Social Psychology. Themes include the crucial role of evidence in Psychology, and ways that Psychology can improve our quality of life. This course counts as a social science general education course.

Prerequisites: R 100 and W 100 (or direct entry into the UG program)

Credits: 3

PSY 201: Conflict Resolution

This course will introduce students to the field of Conflict Resolution, from a Social Psychological perspective. Via lectures, discussions, activities, and assessments, students will familiarize themselves with psychological concepts and apply them to their own lives. Attention will be paid to social psychology, social learning & behaviorism, roles & behavior, response to authority, the biological basis for group formation, and social constructs like ethnicity, race, religion, gender, language, and political affiliation. After studying the sources of conflict, students will practice resolving conflicts: active listening and interest-based negotiation. There are three recurring themes in the course: Conflict can be adaptive. Conflict can be mitigated. Conflict can be avoided. This course is a core option in social science. This course counts as a social science general education course.

Prerequisites: R 100 and W 100 (or direct entry into the UG program); PSY 101 recommended

Credits: 3

REL 422: Gender and Islam

The first convert to Islam was a woman. From Islam's earliest days, women have played an important, if oft under-acknowledged role in the development of Muslim culture and civilization. The primary goal of this course is to introduce students to the relation of Islam and gender. As such, it will focus on the central text of Islam, the Quran, as well as the life of the early Islamic community. The course opens with an intensive reading textual analyses of gender in Islam's scriptures. We then move on to issues of interest to contemporary social scientists. While the class reflects the bias in scholarship toward the study of women and femininity in Islam, the class also addresses masculine and transgendered perspectives. A second goal of the course is to capture the diversity of gender in contemporary Islam, by emphasizing gendered experience in Muslim communities both inside and outside the Middle East

Prerequisites: 45 earned credits

Credits: 3

Law Major

ARA/LNG 101 (201): Introductory Arabic

This course introduces students to the basics of Arabic, presuming low and average level of the language. Students will become familiar with common phrases and sentences of standard Arabic, with a simple practical vocabulary on common topics, and with the simple rules of Arabic grammar. The course will cover all the skills of listening, reading, speaking, and writing, with a focus on academic reading for the benefit of students who may intend to use Arabic for academic purposes in their degrees. The course materials will draw both on textbook training material and on authentic real-life examples of written and spoken Arabic. The course comes with a weekly lab, or in-class practice, for Arabic phonology, intonation and listening comprehension.

Prerequisites: Law major, OR Translation major + department chair-approval

Credits: 4

ARA/LNG 202 (102): Intermediate Arabic

This course is designed to help Intermediate Arabic level students develop their language skills and broaden their linguistic foundation in order to approaching readiness for academic study in Arabic. The course will be covering basics of critical reading, academic writing and terminology, conversation and argumentation skills in standard Arabic. The reading skill will be focusing on a specific book in Arabic to be read during the semester with understanding of its idiomatic phrases.

Prerequisites: ARA/LNG 101(201)

Credits: 4

LGS 301: Thinking Like a Lawyer and Legal Outcomes

This course will provide an introduction into skills required to analyze materials from a legal perspective. It will focus on critical reasoning, legal terminology, legal writing, and supporting an argument.

Prerequisites: 45 earned credits (Law major 30 earned credits)

Credits: 3

LGS 205A: Introduction to Law

This course provides an overview of the law and legal system of Iraq, with a focus on conflict of laws. The course provides theoretical and practical insights into the nature and function of private international law. It will analyze the issue of dealing with legal disputes in which one of the parties is a foreigner and how Iraqi laws and courts respond to this. It starts with a comprehensive study of the issue of citizenship under the new Iraqi Citizenship Law, including the issue of legal capacity, cross countries marriages, the citizenship of legal persons, custody of children, divorce, inheritance, and other important topics. It also covers the choice of law rules before various Iraqi courts. It also examines the jurisdiction of Iraqi courts in case of disputes with a foreign element including territorial and extraterritorial application of Iraqi laws. Further, it addresses the procedures of enforcing or recognizing a foreign court judgment in Iraq. It also compares conflict of law rules to that of other countries in order to expose students to different rules in different legal systems.

Prerequisites: None

Credits: 3

LAW 101: Human Rights

This course covers the fundamental principles that govern the international human rights law system. It covers the origins and development of the concept of human rights from the ancient civilizations to the contemporary human rights law. It examines the major instruments and initiatives that contributed to the development of human rights after the First and Second World Wars. It also covers the role of international and regional organizations in the protection of human rights including the United Nations, the African Union and the European Community. It examines the responsibility of states towards such rights and monitoring them in case of violation with the aim of rectifying any such violation. Further, it covers how the Iraqi Constitution examined the issue of rights and liberties and comparing it to the recognized international standards. Finally, it covers the role of Iraqi institutions designed to strengthen the status of human rights in Iraq including the Independent Commission of Human Rights.

Prerequisites: None Credits: 3

LGS 220: Legal Terminologies

This course covers the philosophical bases of law by focusing on the theories that have been developed to explain the nature, sources and meaning of law. It covers the two major theories and schools of philosophy of law; naturalism and positivism. In addition, other modern theories of law are studied including legal realism, critical legal studies, and etc. Further, this course examines the elements of all of these theories explanation of law and compare it to the way law function in Iraq. Theories of interpretation of law is also studied as interpretation would be the essence of the process of the application of law to the facts before judges in real cases.

Prerequisites: None

Credits: 3

LAW 110A: Constitutional Law

This course covers the principles governing the Constitution and the Constitution of Iraq specifically. It examines the history and origin of constitutionalism and the philosophical and political bases of the adoption of constitutions by states. It also covers the topics that are regulated in the constitution including the principle of the separation of powers and the checks and balances. It extensively covers how the constitution distribute governmental powers between various branches of the government and their limits. Fundamental rights and freedom of individuals are also studied in this course and the limitation of those rights and freedom by the government. It covers the subject of federalism and the power of both the federal and regional governments in Iraq.

Prerequisites: 30 earned credits

Credits: 3

LAW 120: Fundamentals of the Science of Criminology and Punishment

This course covers origins and development of criminology. The basic content and concepts of the science of criminology including crimes, motives pushing some people to commit crimes, deviance, ways of fighting criminal activities, rehabilitation will be critically studied. It also examines traditional and modern theories proposed to analyze criminal minds and activities in societies and to offer effective solutions for such problems. The relationship between criminology, law, and other science is also studied. The relationship between theory, research, and practice in the field of criminology is also extensively covered.

Prerequisites: None

Credits: 3

LAW 201A: Civil Law: Sources of Obligations

This course covers the origin and development of the theory of obligation as one of the most fundamental sources of the majority of laws from the private law branch. It extensively covers the topic of contract as one of the major sources of obligation. Students in this course learn the requirements of a valid contract including the mutual consent of the parties and problems that affect such consent. In addition, it covers other elements of a valid contract such as motive and subject of the contract. This course also covers issues of amending or nullifying contracts after they are concluded by the parties. Further, contractual responsibility is also studied when one of the parties to the contract involves in breach. Finally, another essential part of the course is the responsibility of individuals for their actions without the existence of a contract. This course helps students strengthen their critical thinking skills and logical conclusions as it heavily relies on legal reasoning and text interpretation.

Prerequisites: LAW 110

Credits: 3

LAW 203A: Fundamentals of Islamic Jurisprudence

This course provides an overview of the basics of traditional Islamic law. It provides students with basic knowledge of the law-making process under the Islamic law and how it differs from the law-making process under the French Civil law system. It covers each major source of law including Quran and Hadith and other sources like Ijtihad and Qiyas. It also covers contemporary problems associated with the sources of law in modern times and the responses offered by mainstream Islamic institutions and scholars. In addition, the course analyzes the historical background of how these sources evolved in the early Islamic history and how political, cultural, and tribal norms affected the law-making process. Finally, students learn the influence of the Iraqi Constitution of 2005 on laws and rules and regulations as it considers Islam as one of the major sources of law.

Prerequisites: LAW 110

Credits: 3

LAW 220A: Criminal Law: The General Part

This course covers the general principles of the criminal law under the Iraqi legal system. It first examines the general principles that are mentioned in the constitution including the principle of legality, the principle of non-retroactivity of laws, and the presumption of innocence. Such constitutional principles set the foundations of the criminal law. This part of criminal law also teaches students essential concepts such as elements of crimes, criminal responsibility, and the scope of the application of the criminal law. It also examines the defenses that abrogate criminal responsibility and types of crimes. This course also covers issues related to complicity in crimes and its rules under the Iraqi criminal law. Further, students study the concept of punishment and its types including fine, imprisonment, and the death penalty and when each of these punishments are imposed. Finally, other principles are also studied that cover various issues and aspects of crime and punishment such as precautionary measures (punishment) recognized under the Iraqi criminal law.

Prerequisites: LAW 110

Credits: 3

LAW 230: Commercial Law, Principles and Contracts

This course focuses on principles of Commercial Law under Iraqi Law including the scope of application of this law, types of commercial acts, who is a trader and what are her duties, and conditions on becoming a trader. In addition, it teaches students about the commercial papers including checks, promissory note, and commercial draft wires that are used extensively between traders. Students also learn how to become members of the Traders Unions in every province to assist their clients on the requirements of becoming a businessman. They also learn how to bring lawsuits before civil courts for settling their clients' disputes related to commercial transactions and issues with the Traders Unions.

Prerequisites: LGS 205 or 30 earned credits

Credits: 3

LAW 210: Constitutional Law: State Theory

This course is a complementary for the Constitutional Law course students have studied at the first stage of legal education. The course is mostly about understanding legal aspects of the constitution. However, this course examines the political systems around the world and throughout the history of political development. In addition, the characteristics of each political system and their various types are studied such as the form of government in a democratic, totalitarian, communism, or Islamic System. In addition, this course teaches students the nature of political parties and their roles in each political system mentioned in order to be familiar of the function of the political process. They also study the role of civil society activities, including the Media, NGOs, and other pressure groups, in shaping the political situation in every system.

Prerequisites: 45 earned credits

Credits: 3

LAW 240: Administrative Law: General Principles

This course, taught in either the Arabic or English language, teaches students the principles of Administrative Law. It covers a wide range of administrative theories and principles. It teaches students theories that have emerged in the French legal system as a basis for administrative law including the principle of government versus administrative acts, the principle of public agencies, and the principle of public interests. Students also study the legitimacy principle of government acts, which is an essential concept for the entire administrative law subjects. In addition, relationship between administrative law with other branches of law is studied especially the constitutional law, tax law, criminal law, and finally civil law. The legal personality of public agencies, the methods of administrative systems such as centralization and decentralization, and types of administrative activities are also studied by the students. In addition, it covers extensively the issue of serving in the public administrations. For instance, students also study the process for the appointment, disciplining, and firing officials, duties of officials, administrative punishments specified in our civil service law for wrongful officials.

Prerequisites: LGS 205 or 30 earned credits

Credits: 3

LGS 410: Public International Law

This course provides an overview of the law and legal system of Iraq, with a focus on public international law. The course provides theoretical and practical insights into the nature and function of law. It will analyze the role of law in a social, economic, political and historical context, providing students with not only knowledge of legal rules but also a critical

understanding of the operation of rules in society. Topics include: Statehood and Sovereignty, International Treaties and Organizations, Iraq and the KRG and International Criminal Law, Iraq and the KRG and International Human Rights, Iraq and the KRG and International Migration and Refugee Law.

Prerequisites: LGS 210, LGS 225, or 50 earned credits

Credits: 3

LAW P1: Legal Practicum

This course is to strengthen the practical side of the law study as students mostly study law courses theoretically. Students are required to join the Court House in Kurdistan and Iraq in order to see how cases are prosecuted by various courts and the procedures for lawyers of how they communicate with the courts.

Prerequisites: 75 earned credits

Credits: 2

LAW 301A: Civil Law: Execution of Obligations

This course teaches students how to enforce contractual and other legal obligations under the Iraqi Civil Code after students studied sources of obligations in the second year. The course covers the procedures required for the creditor to get his debts back from the debtor through remedies available to him. It also covers various types of obligations and methods to remedy them. Students learn about remedies that are available to creditors including specific performance and the procedures of achieving this under the Iraqi Civil Code. They also study the requirements of implementing the specific performance. The course teaches students about other available remedies to enforce an obligation if specific performance does not work and cannot be implemented. Finally, it also examines voluntary enforcement of obligations by the debtor and the role of courts in these procedures.

Prerequisites: LGS 205 or 30 earned credits

Credits: 3

LAW 303A: Personal Status Law: Marriage and Divorce

This course covers legal principles regarding engagement, marriage and divorce under the Personal Status Law of Iraq, which is based entirely on the Principles of Islamic Law. Students learn every detail regarding the elements of marriage contract and its requirements including legal capacity, registration of marriage contracts, and rules of evidence concerning marriage contracts. It also covers the rights of wife under the law which is mostly dowry and wife's financial rights on the husband. In addition, the course covers methods that the marriage contract is terminated including divorce, judicial separation, and consensual separation. It also talks about rules related to children that are born including child custody, lineage, and the financial support of a child and other relatives under Islamic Law including mothers and fathers.

Prerequisites: 60 earned credits

Credits: 3

LAW 320A: Criminal Law: Private Section

This course teaches students to have knowledge about crime classifications under Iraq's Criminal Law. It covers each crime and misdemeanor and the punishment prescribed for it and mitigating or aggravating circumstances of the crime if available. It starts by covering those crimes that affect the public interest including forgery or formal and informal documents, forgery of bank notes, bribery, embezzlement, and confiscation of public

property. It also covers those crimes that are related to public morality including rape, harassment, and dishonoring crimes. Students also learn about those crimes that are affecting the life of people including murder, battery, and kidnapping. Finally, they study crimes related to the internal and external security of the state.

Prerequisites: LAW 220

Credits: 3

LAW 350: Public Finance and Tax Legislations

This course teaches students basics of Public Finance and some aspects of tax law under the Iraqi legal system. Students study legal principles and rules that govern public expenses including the definition of these expenses, elements and types of such expenses. This course also teaches students classification of public expenses including limits of such expenses and the issue of increasing public expenses. Finally, students study government revenues and their sources including oil, fees, taxes, and other ways that government uses to increase its revenues.

Prerequisites: 60 earned credits

Credits: 3

LAW 330: Companies Law

This course covers details related to companies functioning in Iraq under the Iraqi Companies Law. Students learn essential elements of companies including articles of incorporation and other requirements such as registering the contract of the company with the Company Registration Agency. They also study legal capacity of companies. The course teaches students different types of companies including personal and financial companies. It teaches students the requirements of the formation of sole proprietorships under the Iraqi Company Law and partnerships. In addition, students study other types of companies including Joint Stock Companies and Limited Liability Companies. Students also study the power that is granted to the government under the Company Law to monitor the activities of companies, especially companies known as Financial Companies. Finally, students study the procedures required under Iraqi Company Law concerning company dissolution.

Prerequisites: TBD

Credits: 3

LAW 355: Labor Law and Social Securities

This course covers the provisions of Labor and Social Security Law in Iraq concerning regulation of the labor environment in Iraq. Students first study a historical background regarding the development of labor laws internationally and locally. It examines the situation of labor law under different political and economic systems including socialism, capitalism and liberalism. Then the course covers the legal framework of the labor market by determining the powers that the government of Iraq is granted to supervise the labor environment to make sure that the labor is enforced properly. In addition, it covers the organization of Labor Syndicate in Iraq and its function and powers and membership of its members. Students learn the function and powers of Government Inspection Committees to ensure that labor rights are respected by employers and their powers to discipline any employer that does not respect such rights. Further, the course covers the way disputes between the employee and employers are settled.

Prerequisites: TBD

Credits: 3

LAW 340: Administrative Law: Legitimacy Principles and Administrative Actions This course covers two major acts of government agencies that affect the liberty and fundamental rights of individuals including administrative decisions and public or government Contracts. It examines the requirements of a decision to be considered an administrative decision that can be challenged before the court. Such conditions are; it must be issued by a local government agency, it must be issued by the sole consent of the agency, and finally it must affect the legal status of persons in the society including natural or legal persons. The course teaches students elements of an administrative decisions including jurisdiction, reason, formalities, subject, and purpose or motive of the decision maker. These elements are studied in details and extensively because government agencies issue thousands of decisions on a daily basis. Furthermore, the course teaches students principles of public or government contracts under Iraq's administrative law. It examines the conditions required for a contract to be considered government contracts and the powers that the government has over contractors that cannot be found in private contract law.

Prerequisites: TBD

Credits: 3

LAW 375A: Civil Law: Civil Contracts

This course covers the nature, elements, and descriptions of contracts mentioned by name under the Iraqi Contract Law including sales, leasing, contracting, and other types of contracts. It examines elements of such contracts including rules governing its formation, amendment rules, and how they are terminated under Iraqi law. It deals with practical problems that are common to these contracts and how judges solve such problems based on relevant texts.

Prerequisite:

Credits: 3

LAW 390A: Administrative Justice

This course covers the procedures and bases of challenging administrative decisions issued by various branches of the government when interested parties feel that they have been treated unfairly. It also covers the structures of the administrative courts in Kurdistan Region and in Iraq as the sole judicial forum for administrative disputes between people and the government on the one hand and the government agencies themselves.

Prerequisites: TBD

Credits: 3

LAW 399: International Organizations

This course covers issues with respect to the formation, structure, function, and aims of international organizations. It familiarizes students with the development and importance of such organizations nowadays in maintaining peace and security, achieving proper international cooperation, and assisting states to overcome difficult challenges that a state cannot face with its own capabilities. It examines the United Nations as one of the most powerful universal organizations in the international community and how the organization function and makes decisions. Students also study other regional organizations including, but not limited to, the European Union and the Arab League. Finally, the role of international or regional organizations is studied in politics and economy in the international community.

LAW P2: Legal Practicum

This course is to strengthen the practical side of the law study as students mostly study law courses theoretically. Students are required to join the Court House in Kurdistan and Iraq in order to see how cases are prosecuted by various courts and the procedures for lawyers of how they communicate with the courts.

Prerequisites: None

Credits: 3

LAW 430: Commercial Papers

This course covers commercial papers or negotiable instrument that are widely available in business activities. It covers the regulation of such papers under the Iraqi laws and the features of them. It also examines the principles that govern the operation of such papers and how courts deal with them in practice.

Prerequisites: TBD

Credits: 3

LAW 460A: Civil Law: Real Rights

This course covers the nature and classification of rights under the Iraqi Civil Law and legal bases of acquiring such rights. It covers the ownership rights as one of the most essential rights of human beings focusing on the branches of ownership rights. It also covers other secondary rights including collateral and other types of rights that are used to guarantee civil and business transactions. It covers how such rights are obtained, power of the owner to use them, and how they are relinquished.

Prerequisites: TBD

Credits: 3

LAW 420A: Criminal Procedures Law

This course covers the rules and principles of how criminal cases are reviewed in the criminal courts in Iraq. It covers all detailed rules of investigation and prosecution and the courts that are empowered to see such cases. It also covers the rights of accused and guarantees of criminal prosecutions mentioned in the Iraqi Constitution and other international instruments Iraq has ratified.

Prerequisites: TBD

Credits: 3

LAW 470: Personal Status Law: Inheritance and will

This course covers the rules of distribution of properties and personal belongings of a deceased person. It covers the rules of inheritance under the Islamic Shariah and the share of each person determined in Quran. It also covers who bans whom and the priority among heirs in receiving the properties of the deceased. In addition, it covers the rules of wills under the Islamic Shariah and its relationship with the shares of inheritance.

Prerequisites: TBD

Credits: 3

LAW 475: Civil Procedures Law

Prosecuting cases is quite complicated and there are various types of procedures involved in settling civil disputes between contested parties. It covers the requirements of accepting lawsuits before civil courts in Iraq and Kurdistan, the procedures of prosecuting the case including how lawyers submit arguments, how to counter argue, and how to appeal the

decisions of courts before the Court of Appeals. It also covers rules of evidence and how courts use them for settling civil cases.

Prerequisites: TBD

Credits: 3

LAW 401A: Execution Law

This course examines the procedures of enforcing court decisions or other obligations on some people who refuses to honor such commitments. In addition, it covers procedures of how the Enforcement Agency executes court decisions including the use of force in cases necessary and the requirements of police intervention.

Prerequisites: TBD

Credits: 3

LAW 490A: Complementary Laws (Public and Private)

This course covers the secondary subjects regulated in some public and private laws that have not been studied throughout the law study, but they are essential for students including the evidence law, rules of practicing law, and the role of public prosecution agency. It also examines the Traffic Law, the Law of Real Estate Registration, Juvenile Law, and Law against Domestic Violence.

Prerequisites: TBD

Credits: 3

LGS 420: Private International Law

This course provides an overview of the law and legal system of Iraq, with a focus on international commercial law. The course provides theoretical and practical insights into the nature and function of law. It will analyze the role of law in a social, economic, political and historical context, providing students with not only knowledge of legal rules but also a critical understanding of the operation of rules in society. Topics include: International Trade Law, International Commercial Arbitration, Oil and Gas in the International Sphere, Transnational Crime, International Contract and Choice of Law.

Prerequisites: 60 earned credits

Credits: 3

LAW 499: Graduation Research

Students are required to write research as part of the requirements of the graduation process. Students are required to choose a topic after consultation with a faculty member, which should be a legal topic that concerns the people in Iraq. A faculty member will supervise students and guide them on the writing process.

Prerequisites: Completion of 100 Credits of the law major courses

Credits: 3

LAW 495: Criminal Investigation and Forensic Medicine

This course covers the procedural side of criminal investigations in Iraqi criminal courts. It examines how investigation is initiated according to the Iraqi Criminal Procedures Law, guarantees of the accused, and procedures of the investigation process itself. It also covers the forensic medicine as an effective method of evidence used in order to indict or acquit accused people.

Prerequisites: TBD

Credits: 3

POL 399: International Organizations

Special topics in Politics and Government. Course content varies. This course counts as an international studies major course.

Prerequisites: TBD

Credits: 3

The Department of Medical & Health Sciences (MHS)

BIO 102: General Biology I

This is the first in a two-course series in General Biology. BIO 102 is the lecture component of an integrated lecture-laboratory course. The lab component of the course, BIOL 102, is a co-requisite of this course and should be registered separately.

This course includes an in-depth study of the fundamental biological principles and process governing living organisms. Through classroom discussions and readings, we will explore the structure of living systems, their mechanisms of evolution and regulation, and the underlying causes for their simultaneous genetic diversity and similarity. As we explore these fundamental processes, we will reflect on how biological knowledge is produced, tested and revised, and how technology has allowed humans to alter the universal genetic code.

Pre-requisite: SCI 101 and SCIL 101 or placement test in BIO 102 Co-requisite: BIOL 102

Credits: 3

BIOL 102: General Biology I Laboratory

BIOL 102 is the lab component of an integrated lecture-laboratory course on general biology. The lecture component of the course, BIO 102, is a co-requisite of this course and should be registered separately.

This course offers a set of laboratory experiments that allow the students to apply the concepts studied in the General Biology I course (BIO 102). Each lab allows students to practice the scientific method and develop their data collection, processing, and data analysis skills, while reviewing the fundamental processes governing living organisms. Pre-requisite: SCI 101 and SCIL 101 or placement test in BIO 102

Co-requisite: BIO 102

Credits: 1

BIO 203: General Biology II

This course is the second part of a two-semester series on General Biology. This course provides an overview of life diversity on earth. Students will learn about major forms of life, including animals, plants, invertebrate, and microorganisms. They will be introduced to the structure of prokaryotic and eukaryotic microorganisms, emphasizing their ecological and industrial importance. Moreover, through classroom discussions and readings, students will explore the structure of organ systems in plants and animals, their functions, and abnormal conditions that may affect these functions.

Pre-requisite: BIO 102 and BIOL102 Co-requisite: BIOL 203

Credits: 3

BIOL 203: General Biology Lab II

BIOL 203 is the lab component of an integrated lecture-laboratory course on general biology. The lecture component of the course, BIO 203, is a co-requisite for this laboratory course and should be registered separately. After learning the basic functions and characteristics of cells in BIOL 102, students will expand their knowledge of general biology in BIOL 203 by investigating higher level of organization in the hierarchy of life. Students will study tissue, organ and organ systems for both animals and plants. Furthermore, students will be able to investigate the interaction among living things and between living things and their environment.

Prerequisites: BIO 102 and BIOL 102

Co-requisite: BIO 203

Credits: 1

SCI 101: Life Science

This course will carefully examine life on the planet Earth and the methods by which scientists observe natural phenomena, test hypotheses using inductive and deductive reasoning, analyze and interpret scientific data, and synthesize the resulting knowledge to understand biological diversity. Through readings, class discussions, and problem-solving exercises, students will consider the diversity and classification of living organisms; the processes that govern their structure and function at multiple scales; their mechanisms of reproduction, inheritance and evolution; and their interactions with the external environment.

Prerequisite: None Credits: 2

SCIL 101: Life Science Lab

This course offers a set of laboratory experiments that allow the students to apply the concepts covered in the Life Science course (SCI 101). The laboratory practice begins with an introduction to the theory and application of the Scientific Method. The students also conduct a study for a period of five to six weeks during which they collect weekly experimental data. In addition, every session of the Life Science Lab further reinforces the use of the scientific method. The AUIS Life Science lab is currently equipped to conduct 14 experiments (listed at the end of this syllabus). These include but are not limited to Diffusion and Osmosis in cells, Mitosis and Cytokinesis,

Bacterial Transformation, and Electrophoresis. Prerequisite: None

Co-requisite: SCI 101

Credits: 1

SCI 260: Food Science

This course will provide an introductory knowledge of food chemistry, food laws, food processing, food microbiology and fermentation, food safety, food toxicology, food engineering, sensory evaluation, and food product development. Students will understand the main concept of food science and they will become familiar with the vocabulary of food processing and novel technology. In addition, this course will provide a good opportunity to know how to design a new product. By taking this course, students will have a broad overview of certain aspects of the food supply both locally and worldwide and will recognize issues affecting food safety.

Prerequisites: none Credits: 3

SCI 280: Gender and Health in the Developing World

This course offers a holistic understanding of the impact of gender on health, particularly within a developing-world context. It will especially focus on women's health concerns in relation to Middle Eastern, African and South Asian configurations of gender. We will explore, among other things, health concerns such as reproductive and mental health and gender-based violence. Class sessions will involve analyses of the socio-economic consequences of these negative health practices and forced displacement on women. Our textual engagement will include theoretical explications, case studies, and health reports by international agencies, and media coverage of women's health issues. It is hoped that this course will inform the health discourse about women in this region, open up a dialogue

about this important topic that often goes unnoticed, and shed light on the social injustice associated with mainstream health assumptions.

Prerequisites: SCI 101, SCIL 101 and ENG 102

Credits: 3

BIO 231: Human Anatomy

This course is an introduction to anatomy and assures no prior knowledge of the human body by student. It is directed to prepare students for health-related professions such as medical laboratory Science students.

Prerequisites: BIO203 and BIOL203 Credits: 4

HSCI 201: Clinical Laboratory Science Methods & Techniques

This course is an integrated lecture/laboratory based introductory course designed for students who are majoring in medical laboratory sciences. This course covers a broad range of basic clinical laboratory techniques and methods and provides the students with a practical idea about their future profession in a clinical laboratory. Students will learn the principles of basic laboratory diagnostic techniques and procedures, identify numerous instruments and operate them, understand safety regulations and policies, and gain knowledge on quality assessment. This course is a starting gateway through which students will be prepared for future specialized medical courses and their clinical rotation in their final year.

Prerequisites: MLS major declaration Credits: 2

BIO/L 341: Human Physiology

This course is designed for students in the health sciences.

The theory lectures will introduce learners to the detailed physiological functions of various body systems, and will help learners understand the interaction and harmony with which these bodily systems normally operate.

Experiments are performed in the laboratory to illustrate functional characteristics of cells, membranes, and organ systems discussed in lecture and to provide direct experience with lab techniques, recording systems and methods of data analysis. Prerequisites: BIO23, CHEM/L 232, PHYS/L224

Credits: 4

CHEM/L 351: Biochemistry

This course emphasizes the fundamental concepts of biochemistry including structures and functions of proteins, enzymes, carbohydrates, nucleic acids, lipids and membranes. This course will effectively address kinetics, mechanisms and regulation of enzymes, metabolic pathways, glycolysis, electron transport and oxidative phosphorylation. There is a required, weekly lab for the course, in addition to lectures Prerequisites: BIO23, CHEM/L 241

Credits: 4

BIO/L 351: Microbiology

This is a course designed to provide basic principles of microbial life for non-biology majoring undergraduate students. Although relatively simple and primitive, microorganisms are considered as the most successful form of life. They are virtually everywhere, and they are in tight relationship with other forms of life on earth. Unlike microorganisms (i.e. animals, plants, insects, etc.), microorganisms carry out their life processes such as energy metabolism, growth, and reproduction independently from other

cells. This unique feature makes microorganisms a great tool to study the nature of life. The course will cover eukaryotic and prokaryotic microbes and viruses, with major emphasis on bacteria.

The lab component of an integrated lecture-laboratory course on general microbiology. Students will gain practical experience on topics and concepts covered in general microbiology lecture. Besides learning basic techniques and methodologies that will prepare them for advanced medical microbiology and parasitology courses, students will also acquire skills in isolation, identification, culturing, and classification of various microorganisms.

Prerequisites: BIO/L 203, CHEM/L 232

Credits: 4

BIOE 301: Bioethics

This course offers an introduction to Bioethics. Throughout the semester students will engage in discussion and analysis of various ethical issues that medical professionals face, including individual and social moral dilemmas relating to the world of health and biology. We will explore, among other things, dilemmas surrounding patient autonomy, confidentiality, and life and death situations. More specifically class sessions will address real life and hypothetical ethical concerns that medical lab specialists may face, and students will learn to use sound logical thinking to reach moral decisions. This will be a flipped classroom format, where students will be expected to prepare for each class by engaging with the reading assigned which will include excerpts from text books, philosophical essays, court decisions, opinion pieces and journal articles. Classes will take on a seminar structure, where students will engage in open discussion about the reading and the topic at hand. It is hoped that this course will expose students to the various ethical and moral issues they may face when engaging in a career in health, and that they will acquire the skills and tools to come up with logical and ethical solutions.

Prerequisites: BIO/L 203

Credits: 2

BIO/L 362: Genetics & Molecular Biology

To provide a general introduction to the molecular basis of genetics, how genes are maintained from one generation to the next and how their expression is regulated in various systems. Molecular Biology introduces you to the structure and function of molecules, including DNA and RNA, which allow genes to be expressed and be maintained from one generation to the next. You will also learn about genetic engineering, its application, and the ethical issues associated with its use.

Prerequisites: BIO/L 203, CHEM/L 241, STT 201

Credits: 4

MEDS/L 322: Medical Microbiology

This advanced course will introduce students to the microbial species that cause human disease. We will cover bacteria, fungi, viruses, and protozoa, and discuss current topics including antibiotic resistance, public health threats, and global health. This course will be critical to medical laboratory students as it deals with most of the agents that cause infectious diseases. Knowledge gained from previous courses such as BIO 203 and BIO351 will serve as foundation for this course. The focus of this course will be on pathogenic microorganisms and their application on our health. The laboratory component of this course will provide students with hands-on experience of the most common techniques

used in studying the modern medical microbiology as well as learning and performing various medical tests that are fundamental in clinical laboratories. The assigned experiments will prepare students for working on laboratory techniques designed for both medical research and clinical procedures.

Prerequisites: BIO/L 351, HSCI 201

Credits: 4

MEDS/L 332: Medical Immunology

This comprehensive course explores the structure and function of the immune system in both normal and abnormal conditions. It commences with the important components (cell, tissues; antibodies; immunoglobulin) involved in host defense against infectious agents. Introductory lectures serve to describe and differentiate between natural defense (innate) mechanisms and adaptive immunity mediated by functional B and T lymphocytes and their products. Subsequently, cellular interactions, especially the differentiation of helper T cells subsets and the production of relevant cytokines, will be described. This will include the mechanisms of T cell activation and regulation. Finally, clinical immunology will be discussed: autoimmunity and autoimmune diseases; hypersensitivity reactions, including atopic disorders and asthma; mechanisms of transplant rejection; and immunodeficiency disorders. Upon completion of the course students have a sound understanding of the essential elements of the immune system, preparing them to engage further in this rapidly evolving field. The laboratory component of this course will provide students with hands-on experience of the most common techniques used in studying the human immune system and its components of it as well as learning and performing various clinical tests that are fundamental in serological laboratories. The assigned experiments will prepare students for working on immunological techniques designed for both medical research and clinical procedures

Prerequisites: BIO/L 351, BIO/L 341, HSCI 201

Credits: 4

MEDS/L 342: Medical Hematology

The medical course focuses on studying blood cells and is intended to introduce the student to normal and pathologic hematology, with emphasis on cell development, cellular components and morphology. Laboratory exercises will instruct the student in proper specimen collection, preparation of peripheral blood smears, microscopic examination of blood smears, and other manual tests associated with blood and coagulation studies. Lectures will include discussion of actual clinical cases. Knowledge gained from this course will be essential for successful completion of the Medical Laboratory Science program and for obtaining employment as an entry-level medical laboratory scientist.

Prerequisites: BIO/L 341, HSCI 201

Credits: 4

MEDS 401: Medical Laboratory Science Operations

This course is a lecture based technical course in which students will be introduced to the basic and advanced clinical laboratory techniques and methods more in depth. This course will cover each branch of clinical laboratory in detail, as well as the fundamental clinical laboratory concepts that go hand in hand with their clinical rotation learning objectives.

In this course, students will apply their knowledge and technical skills to study and analyze real-life case studies.

Prerequisites: BIOE 301 & HSCI 201

Credits: 2

HSCI 411: Public Health

This is a holistic course which aims to introduce public health as a topic, but also expose students to the key areas of public health, including Epidemiology, Determinants of health, Health system design, and Health promotion. This course is interdisciplinary as it will draw upon issues surrounding medicine, social and political theory, as well as gender and diversity to give students a holistic understanding of health and population health management. The course will be taught as a flipped classroom format, wherein students will be asked to read a variety of chapters, research articles, and policy papers, before attending class.

Prerequisites: BIOE 301 & MEDS/L 322

Credits: 3

MEDS 422: Clinical Chemistry

This course will provide basic concepts and current diagnostic methodology in clinical chemistry. It will cover the conception of biochemical biomarkers and their detection for diagnostic and therapeutic purposes. Emphasis will be placed on basic scientific calculations and data analysis, as well as making solutions and sample collection. Laboratory safety and quality control procedures will be covered in the laboratory sessions, as well as techniques used for biochemical analysis that include immunological assays, electrophoresis, spectrophotometry, chromatography, and mass spectrometry will be discussed in the course.

Prerequisites: BIOE 301, MEDS 322, MEDS 332, and MEDS 342

Credits: 3

CLP 411: Clinical Laboratory Rotation I

Clinical laboratory rotation I is the first part of two rotations series that are offered to senior medical laboratory students. CLPI and II are offered in a form of clinical practicum, in which qualified students are sent to affiliated clinical sites to learn and gain clinical laboratory skills. Clinical laboratory Rotation I (CLP 411) consists of three modules: Clinical Chemistry, Microbiology, and Genetics. Senior students will spend three days/week at the clinical sites to covered planned clinical training.

Students are expected to be able to build on the foundation of knowledge, skills and values acquired from the university classroom and laboratory courses as they master challenges provided in clinical practice. The practice experiences will allow the student the opportunity to display professional characteristics, gain confidence, and develop proficiency in both: technical and theoretical laboratory practice skills. More details about each clinical modules are provided in the course syllabus.

Prerequisites: BIOE 301, MEDS 322, MEDS 332, and MEDS 342

Credits: 6

MEDS 421: Medical Parasitology

This course will provide introductory knowledge of Medical Parasitology. Topics covered include parasite diversity, classification, life cycles, pathogenesis, host defense mechanisms, symptoms and treatment of parasitic diseases. It will provide the students basic knowledge and understanding of medically important parasites, laboratory diagnosis, clinical symptoms, treatments and current challenges associated with human

parasitic diseases.

Prerequisites: MEDS 322, MEDS 332, and HSC 411

Credits: 2

MEDS 423: Body Fluid Analysis

This is an advanced course on the principles and procedures of the chemical and microscopic analysis of urine, cerebrospinal fluid, synovial fluid, serous fluid and other miscellaneous body fluids. It is an on-campus theoretical course (2 hours per week) designed to complement the practical clinical experience in Body fluids analysis gained at the clinical laboratories during the Clinical Rotation II course.

Prerequisites: MEDS 322, MEDS 422, MEDS 401

Credits: 2

CLP 442: Clinical Laboratory Rotation II

Clinical laboratory rotation II is the second part of two rotations series that are offered to senior medical laboratory students. CLP-I and II are offered in a form of clinical practicum, in which qualified students are sent to affiliated clinical sites to learn and gain clinical laboratory skills. Students are expected to be able to build on the foundation of knowledge, skills and values acquired from the university classroom and laboratory courses as they master challenges provided in clinical practice.

The practice experiences will allow the student the opportunity to display professional characteristics, gain confidence, and develop proficiency in both: technical and theoretical laboratory practice skills.

Clinical laboratory Rotation II (CLP442) consists of three modules: Hematology, clinical immunology/Serology and blood banking. Senior students will spend three days/week at the clinical sites to cover planned clinical training in the following modules:

Clinical Hematology:

The clinical experience gained during the hematology module will emphasize the previously gained knowledge in basic and medical hematology. Students will learn the conduct of main hematological tests in a clinical setting

Clinical immunology/Serology:

The clinical experience gained during the Serology module builds on a previously acquired theoretical and technical foundation (Immunology/Serology Lecture and Laboratory) and emphasizes the enhancement of acquired knowledge and skills in performing various immunological tests and serologic procedures.

Blood Banking:

Direct clinical experience offered in the principles of blood banking with emphasis on the instruction of technical procedures used in the HQH blood bank.

Students will apply knowledge obtained of blood cell antigen/antibody interactions, and accurately interpret serologic and clinical data in the procurement, selection, and preparation of safe transfusion products.

At the completion of this course, students will be able to demonstrate the competencies that are possessed by an entry-level laboratory scientist in a typical Blood Bank.

Prerequisites: MEDS 332, MEDS 342, and CLP 411

Credits: 6

MEDS 445: Transfusion Medicine

Transfusion medicine plays a critical role in the modern medicine and has massive diagnostic and therapeutic applications. Students will learn about blood collection, blood component use, transfusion reactions, and transfusion-transmitted infections. Basic concepts of genetics, immunology, and antiglobulin testing are included as a foundation for the understanding of the blood group systems and antibody detection and identification. Current transfusion practices will also be discussed. The practical side of this course is already included in the clinical rotation II, which is a co-requisite of this course. Through clinical laboratory Rotation, students will obtain experience in blood banking practices including blood typing, antibody screening, cross matching, and confirmatory testing.

Prerequisites: MEDS 332, MEDS 342, and CLP 411

Credits: 3

MEDS 450: MLS Capstone Project

This is a student-initiated project in the field of clinical laboratory science or a closely related subject area, which culminates in a scholarly professional written report and an oral presentation. Senior MLS students will be assigned to conduct community-based research under the supervision of MEDS faculty members. This research project aims to address some of the common health/medical issues in the city of Suli and provide some research experience to our students. It is an independent project that is expected to result in good quality research. Students will be highly encouraged to publish their research in local or international journals and conferences.

Prerequisites: CLP 411

Credits: 3

the College of Dentistry Course Descriptions:

EDM 101: Ethics and Patients' Rights in Dental Medicine

This subject presents the ethics as an intrinsic component of dental practice and explained different ethical points in the relation between the patient and dentist in dental medicine. The focus will be on dental ethics that deals with moral issues in dental practice. In view of important role of a dentist as a health professional he have to know about the patients' rights. The dentist is educated and trained on the treatment of both surgical and medical diseases related to the oral cavity as well as obtaining skills on different dental procedures. Another important subject to be discussed is the dentists' rights in the community and law. As long as dentistry has exist, dentists have been facing difficult ethical dilemmas. But recently the complexity of the ethical issues faced by the dentists has increased.

Prerequisites: No

Credits: 2

BID 101: BIOLOGY

In this course of biology, the general concept of biology is introduced and taught.

- The students are then taught the basic unit of life which is the cell. The cell is covered extensively including the different types of cells, their characteristics and functions.
- The organelles found within the cell are all explained with their associated roles including the nucleus, mitochondria, DNA, ribosomes...etc.
- The cell membrane as means for protection and transport will be discussed.
- The division of cells, the role of DNA and the cell interaction with its environment will also be covered. - Furthermore, the bacteria, virus and fungi will also be taught extensively.
- The role of immunity in our lives and its components will be taught followed by the basics of heredity (genetics).
- Human blood and its types will be covered with blood cells and their functions.
- Oral biology and the composition of oral cavity is also taught in several lectures.
- The human teeth, their names and composition, their function and role in aesthetics will be covered.
- The hard tissues and soft tissues of the oral cavity including the bones, mucosa, tongue and soft palate are also covered in this course.

Prerequisites: No

Credits: 3

TER 101: Medical Terminologies

The Medical Terminology course gives students in-depth instruction in recognizing and forming medical terms and apply them to various body systems. Students will learn how to recognize, define, spell, and pronounce terms associated with frequently performed laboratory tests, radiological techniques, and surgical procedures related to dentistry.

Prerequisites: No

Credits: 2

DEN 201: Dental Anatomy and Morphology + Lab

It is a single semester course, given as two lectures and two practical sessions per week. The Dental Anatomy and Morphology course comprises instructions on the principles of Dental anatomy, nomenclature, eruption sequence, physiology of the oral structures, occlusion, and morphology of teeth. The general objective is to provide the undergraduate dental student with the knowledge of dental anatomy and morphology that forms the basis for much of the practice of clinical dentistry. It explains the form and function of primary and permanent human

dentition. In this course, the students learn the laboratory steps of wax carving in morphology and comparison of teeth.

Understanding the morphology of individual tooth helps us to differentiate and identify the tooth in the oral cavity. It is also useful in restoring lost or damaged tooth structure; knowledge about the roots and pulp canals of each tooth, which helps them in the future during extraction and root canal treatment. Special topics include survey of dental anomalies, forensic dentistry and comparative anatomy.

Prerequisites: TER 101

Credits: 4

MPHIS 101: Medical Professions in World History

This course explores the development of medicine and the medical professions from the ancient world through to the 21st century. Over the course of the semester, the following topics will be examined: the history of the evolution of the concepts of health, illness, and disease causation over the past three millennia; the historical development of Western biomedicine and the modern medical sciences; the histories of various forms of medical (healthcare) practitioners including physicians, dentists, apothecaries (pharmacists), midwives, and nurses; and the histories of medical institutions over the past millennium. This course is meant to serve two groups of undergraduate students: 1) those who are planning to pursue careers as dentists, pharmacists, and other medical professionals and who desire an historical introduction to their future profession, and 2) those who are generally interested in world history, along with the social and cultural histories of medicine, disease, and science.

Prerequisites: W100, R 100

Credits: 3

DEN 202: Head and Neck Human Anatomy + Lab

This course provides dental students with a comprehensive understanding of the human anatomical structures and systems, especially that of the head and neck region. The course covers a wide range of topics, including the skeletal framework of the skull, facial muscles, blood vessels, nerves, lymphatic system, and organs within the head and neck region. Students will learn about the anatomical relationships and functional significance of these structures in oral health and dental practice. They will gain a three-dimensional understanding of the head and neck structures, enabling them to accurately locate and identify anatomical landmarks during clinical practice. Students will also explore the relevance of head and neck anatomy to various dental specialties, including oral surgery, orthodontics, prosthodontic, among others.

Prerequisites: TER 101

Credits: 3

DEN 203 - Oral Histology and Embryology +Lab

This course provides dental students with an understanding of the microscopic structures and developmental processes of oral tissues. Students explore the form and functions of oral tissues, including the oral mucosa, salivary glands, teeth, and periodontal tissues. The course covers the embryonic and fetal development of the face, oral cavity, and dentition. The course emphasizes the integration of histological and embryological concepts with clinical dentistry, highlighting their relevance to oral pathology, oral medicine, periodontology, restorative dentistry, among others.

Prerequisites: BID 101

Credits: 3

Modern Dental Professional

The aim of this course is to gain an overview of the advancements of dental medicine in the past

few decades and their influence on modern treatment. Students will gain information on oral-related diseases and treatments to deliver the best preventative services to the community. The students will review topics from basic concepts before exploring new trends in dental treatments, research, and technology. The course will assist the students to effectively relay dental-related knowledge to their patients in order to better understand their problem and where it came from.

Prerequisites: 26 earned credits

Credits: 3

DEN 302 - Gross Anatomy + Lab

This course provides dental students with an understanding of the human body's form and parts. It explores the anatomy of the body's organs, tissues and different systems. By the end of the course, students will have a strong foundation of human anatomy for their future study and practice. During this course, students will understand the normal and anatomical variations related to the thoracic and abdominal parts of the human. The course concentrates on osteology, organs and neurology, blood supply and the lymphatic drainage of the thoraco-abdominal area. Also, they know details about the anatomy of the brain and the cranial nerves.

Prerequisites: DEN 202

Credits: 3

DEN 303 - General Pathology + Lab

This course is designed to provide dental students with a fundamental understanding of the cellular and molecular mechanisms of disease. Students will learn about the different types of cellular adaptations, including hypertrophy, hyperplasia, atrophy, and metaplasia, and how these changes relate to disease. The course also covers the basic principles of inflammation, including the different types of inflammation, cellular and molecular mediators of inflammation, and the steps involved in the inflammatory response. It covers basic concepts in cellular injury, infectious disease, inflammation, cellular adaptation, tissue repair, immunopathology, neoplasia, among others.

Prerequisites: DEN 203

Credits: 2

DEN 304 - Pre-Clinical Prosthodontics I (Complete Denture) +Lab

The course introduces the pre-clinical procedures for completing denture construction. It will cover the basic principles of complete denture design, function and construction, with an emphasis on the laboratory steps involved in complete denture fabrication. Students will learn the anatomy of the edentulous mouth, jaw relations, occlusion and impression techniques. They also learn about the materials and techniques used in completing removable prosthodontic construction. This course will provide knowledge of the fabrication of complete dentures in dental labs and the techniques for accurate impressions, jaw relations and denture tooth setup, which will support them during clinical application on the patient in the succeeding clinical prosthodontic courses. Students will also learn about the techniques for processing, finishing, and polishing dentures before their application to real patients.

Prerequisites: 26 earned credits

Credits: 2

DEN 305 - Pre-Clinical Operative Dentistry I + Lab

This course is designed to provide dental students with the foundation needed to understand basic operative dental procedures. This course introduces students to the principles of restorative dentistry, including the materials and techniques used in the restoration of decayed and broken teeth. Students will learn about the etiology and pathogenesis of dental caries as well as the principles of cavity preparation and tooth restoration. They will also learn about the

materials used in restorative dentistry and their applications in the lab on dental models.

Prerequisites: 26 Earned Credits

Credits: 2

BCH 203 - Biochemistry

This course is designed to provide dental students with an understanding of the fundamental principles of biochemistry and how they relate to the structure and function of the human body. The course covers the chemical and biochemical basis of life, including the structure, metabolic processes and the properties of biomolecules, and biochemical reactions (amino acids, proteins, carbohydrates, nucleic acids, lipids, and vitamins). The course focuses on the principles of biochemistry and their relevance to dentistry. Students will be able to apply this knowledge to the diagnosis and treatment of biochemical disorders. Also, this course will enrich the background of graduate students who want to study for postgraduate in biomedical research, biochemistry, or biotechnology. In the practical part, the students will learn about the safety protocols and the procedures of the investigations. They will perform basic experiments in biochemistry (pH and buffers, amino acid titration curves, enzyme behavior, etc...) in a biochemistry lab. All these discussions and typical procedures for the investigation of these materials will be performed in the laboratory.

Prerequisites: 26 earned credits

Credits: 3

DEN 308 - Microbiology and Immunology + Lab

This course is designed to provide dental students with an understanding of the fundamental principles of microbiology and immunology as they relate to dental infections and immunological disorders. The course covers the structure, physiology, and classification of microorganisms, as well as the host response to microbial infections. This course will allow students to learn about the principles of bacterial, viral, fungal, and parasitic infections, including the mechanisms of pathogenesis and the host response. Students will also learn about the principles of immunology, including the structure and function of the immune system, the principles of vaccination, and the principles of immunotherapy.

Prerequisites: 40 Earned Credit

Credits: 3

DEN 314 - Pre-Clinical Prosthodontics II (Complete denture) +Lab

This course builds on the foundation provided by Pre-Clinical Prosthodontics I (Complete denture) and is designed to provide dental students with the knowledge and skills needed to fabricate complete dentures. Students will learn about the anatomy and physiology of the oral cavity, including the structures involved in mastication, speech, and facial expression. During this course, students will learn about the principles of complete denture fabrication, including the selection of materials, the techniques of impression-making, jaw relation recording, teeth selection, arrangement and processing of complete denture. In the dental prosthodontics lab, students will gain hands-on experience in the fabrication of complete dentures and learn the techniques for impression-making, jaw relation-ship recording, and the fabrication of custom trays, bite rims, wax set up and processing of complete dentures.

Prerequisites: DEN 304

Credits: 2

DEN 315 - Pre-Clinical Operative Dentistry II + Lab

This course builds on the foundation provided by Pre-Clinical Operative Dentistry I and is designed to provide dental students with the knowledge and skills needed to perform operative dental procedures. Students will learn about the different types of restorative materials and techniques, and how to select the appropriate materials for each patient and situation. During

this course, students will learn about the principles of advanced restorative procedures, including the use of esthetic restorative materials, techniques for tooth-colored restorations, the principles of indirect restorations, the fabrication of a provisional restoration, the principles of bonding and cementation for indirect restorations and other procedures. Dental students will be able to apply some of the information learned on dental models and experience first-hand application of the materials to see the concepts and outcomes.

Prerequisites: DEN 305

Credits: 2

DEN 309 - Physiology + Lab

This course provides dental students with the foundation needed to understand the function of the human body at the cellular, tissue, organ, and system levels. It will introduce students to the various systems of the body and how they work together to maintain homeostasis in the face of changing internal and external conditions. The course will focus on the relevance of physiology to dentistry and cover topics such as the cardiovascular and respiratory systems, which are crucial for administering local anesthesia and monitoring patients during sedation, among others. Moreover, it will explore other areas of physiology such as cellular, neurophysiology, cardiovascular physiology, respiratory physiology, gastrointestinal physiology, and endocrine physiology.

Prerequisites: 40 Earned Credits

Credits: 3

DEN 310 - Cariology

This course is designed to provide dental students with an in-depth understanding of the etiology, pathogenesis, and management of dental caries. The course will cover some of the basic principles of microbiology, including the different types of bacteria that are involved in the development of dental caries. Dental students will learn about the various stages of dental caries development, from the initial demineralization of the tooth surface to the formation of a cavity. The course will also cover the various risk factors associated with dental caries, including dietary factors, fluoride exposure, and oral hygiene practices, among others.

Prerequisites: 40 Earned Credits

Credits: 1

DEN 311 - Fundamental Dental Materials + Lab

This course is designed to provide dental students with an understanding of the materials used in dentistry. This course introduces students to the various types of dental materials, including restorative materials, impression materials, dental instruments and equipment, among others. The course will cover the basic principles of dental materials, including the physical and chemical properties of materials, and their proper use and compositions. Students will learn how to select appropriate materials for specific clinical situations, taking into consideration factors such as esthetics, durability, and biocompatibility.

Prerequisites: 40 Earned Credits

Credits: 2

DEN 312 - Evidence Based Dentistry

The aim of this course is to give students the scientific background knowledge and practical expertise required to conduct efficient "Evidence-based Dentistry." Students will learn how to formulate critical questions, find information, assess the reliability of that information, and apply the evidence to clinical decision-making and ongoing evaluation in patient care at the individual patient level as well as oral health promotion and community advocacy at the population level. The ability to conduct searches, locate pertinent scientific literature, and evaluate it will all be taught to the students. Students participate in "case-based" learning

activities in small groups under the guidance of faculty members who act as facilitators during the seminar/activity portion of the course. These activities help students develop good clinically relevant PICO questions and evaluate the scientific literature to identify the best evidence-based answers to those questions.

Prerequisites: 40 Earned Credits

Credits: 1

DEN 324 - Pre-Clinical Prosthodontics (Partial denture) + Lab

This course is designed to introduce dental students to the principles and techniques involved in the fabrication and fitting of removable partial dentures. The course will allow the students to design and construct an appropriate appliance, and adjust and maintain the denture to ensure optimal function and comfort. Different partial denture types will also be covered, as well as the various components that make up a partial denture. The course will also cover the clinical and laboratory steps involved in the fabrication of a partial denture, including the use of wax try-ins and articulators to ensure proper fit and occlusion. (Maybe we can also add "proper tray selection, material manipulation and diagnostic calculations recording")

Prerequisites: DEN 314

Credits: 3

DEN 325 - Pre-Clinical Fixed Prosthodontics + Lab

This course is designed to introduce dental students to the principles of fixed prosthodontics, which are non-removable prosthesis to replace a tooth structure. Students will learn about the indications and contraindications for fixed prosthodontic treatment, as well as the steps involved in treatment planning, tooth preparation, and restoration fabrication. Students will also learn about the materials used in fixed prosthodontics, and the advantages and disadvantages of each material. Students will learn about different types of fixed restorations, including full coverage crowns, inlays, onlays, and veneers, as well as the principles of tooth preparation.

Prerequisites: 55 Earned Credits

Credits: 2

DEN 326 - Pre-Clinical Periodontics + Lab

This course will be introduced in the 5th semester by providing an introduction to the art and science of periodontology by describing the normal anatomy and histology of the periodontium. The classification of periodontal disease is necessary in order to provide a new framework and principles for how to diagnose periodontal diseases on a more detailed, accurate and scientific basis in order to study the etiology, pathogenesis, and treatment of diseases in an orderly fashion. This course also provides an introduction to periodontal instruments and instrumentation, epidemiology, operator positioning, motivation, oral hygiene instructions, among others.

Prerequisites: 55 Earned Credits

Credits: 3

DEN 327 - Basics of Oral Surgery + Lab

This course will provide dental students with the foundational knowledge necessary to perform basic oral surgery procedures. The course covers the basic principles and techniques of oral surgery, including patient assessment, diagnosis, treatment planning, and postoperative care. It also introduces students to various surgical instruments and materials commonly used in oral surgery. Students will also learn about different types of local anesthesia techniques and their application in oral surgery, including the administration of local anesthesia to block the inferior alveolar nerve, local infiltration, among others. The course will also cover common oral surgical procedures such as the extraction of teeth, surgical removal of impacted teeth and other

procedures needed in their future clinical practice.

Prerequisites: 55 Earned Credits

Credits: 3

DEN 321 - Applied Dental Materials + Lab

This course is designed to provide dental students with the knowledge and skills necessary to understand and apply the principles of dental materials in clinical practice. Students will learn about the physical, mechanical, and chemical properties of different dental materials, and the latest updates and innovations in dentistry practice with the most recent materials and equipment used in dental clinics.

Prerequisites: DEN 311

Credits: 2

DEN 328 - General Surgery + Clinic

This course will cover the basic surgical principles in the diagnosis and treatment of various conditions. The concentration will be on surgical conditions commonly met in the field of Dentistry. This will include surgery for the brain, spine, orthopedics, trauma, burns, plastic surgery, and pediatric surgery. Students will be provided with the knowledge and skills necessary to take history from patients, clinically examine and check their vital signs, disinfection and sterilization, fluid and electrolyte, blood transfusion, shock and principle of preoperative preparation will be taught. Furthermore, students will practice the above topics in the general hospital and take part in some preoperative surgical procedures.

Prerequisites: 55 Earned Credits

Credits: 2

DEN 331 - Fundamental of Occlusion

This course provides dental students with a comprehensive understanding of occlusion, which is the relationship between the teeth, jaws, and surrounding structures during movement and function, and the occlusal impact on various dental procedures in different dental specialties, such as restorative dentistry, prosthodontics, orthodontics, and periodontics, as well as the importance of occlusal adjustments in the prevention and management of temporomandibular disorders. The course focuses on the fundamental concepts and principles of occlusion, including the classification of malocclusions, occlusal morphology, and the factors that influence occlusal stability. The course covers topics such as articulators, facebow, occlusal plane orientation, centric relation, eccentric movements, and temporomandibular joint function.

Prerequisites: 55 Earned Credits

Credits: 1

DEN 340 - Pharmacology + Lab

This course is designed to provide dental students with a basic understanding of pharmacology and its application in dentistry. Students will learn about the pharmacokinetics and pharmacodynamics of drugs, including their absorption, distribution, metabolism, and excretion, as well as their mechanisms of action and adverse effects. Students will learn about the different classes of drugs used in dentistry, including local anesthetics, antibiotics, analgesics, and anti-inflammatory agents, among others. They will also learn about the indications, contraindications, and adverse effects of these drugs. In addition, the course will cover topics related to pharmacology and patient management, such as drug interactions, drug allergies, and drug abuse. Students will also learn about the proper prescription and administration of drugs, including dosages and routes of administration.

Prerequisites: BCH 203

Credits: 3

DEN 350 - General Medicine + Clinic

This course introduces dental students to the fundamental principles of medicine and how they relate to dentistry. It provides a broad overview of the medical conditions that may be encountered in dental practice and the pharmacological interventions used to manage them. Students will learn about the various body systems and how they function, including the cardiovascular, respiratory, gastrointestinal, and nervous systems etc. They will also study the etiology, pathophysiology, diagnosis, and management of common medical conditions such as hypertension, diabetes, asthma, and epilepsy, among others. Furthermore, students will practice the above topics in the general hospital and take part in some clinical procedures.

Prerequisites: DEN 328

Credits: 2

DEN 355 - Pre-Clinical Orthodontics + Lab

This foundational course provides dental students with an introduction to the principles and techniques of orthodontics. Students will learn about the normal and abnormal development of the dentofacial complex, the etiology of malocclusions, and the various treatment modalities used in orthodontics. The course will focus on the diagnosis and treatment planning of orthodontic cases, including the use of diagnostic tools such as radiographs and models. Students will also learn about the various orthodontic appliances used in the preclinical setting, including fixed and removable appliances and will develop an understanding of the basic biomechanics involved in tooth movement.

Prerequisites: 71 Earned Credits

Credits: 2

DEN 360 - Pre-Clinical Endodontics + Lab

This course is designed to provide dental students with a strong foundation in the principles and techniques of endodontic treatment. Students will learn about the anatomy and physiology of the pulp, etiology and diagnosis of pulpal diseases, and the principles of endodontic treatment planning. They will also study the different instruments, materials, and techniques used in endodontic procedures. The course will cover topics such as root canal anatomy, access cavity preparation, cleaning and shaping of root canals, obturation techniques, and restoration of endodontically treated teeth.

Prerequisites: 71 Earned Credits

Credits: 2

Dental Public Health

This course provides dental students with an understanding of the principles and practices of dental public health and its significance in improving the oral health of communities by promoting oral health and preventing oral diseases at the population level. Students will learn about the social determinants of oral health, oral epidemiology, oral health promotion, and disease prevention strategies. Students will also examine the role of oral health in the overall health and its impact on quality of life, as well as water fluoridation in communities and access to dental care. The course will cover essential concepts such as community oral health needs assessment, program planning, implementation, and evaluation.

Prerequisites: CSC 101

Credits: 3

DEN 361 - Practice Management + Clinic

This course is designed to introduce students to the management side of dental clinics. It provides the basic principles of efficient management of systems, costs, revenues and how to manage these factors and improve customer retention through quality of care and developing a sustainable, patient-centric practice. Topics such as Business Strategy, Accounting/Finance,

Leading People and Services Marketing will be taught to help students prepare for their clinical life in all different ways.

Prerequisites: 71 Earned Credits

Credits: 2

DEN 365 - Oral Radiology + Clinic

This course is designed to provide dental students with a solid foundation in the principles and techniques of radiographic imaging as applied to the oral and maxillofacial region. This course explores the use of radiographs for the diagnosis and treatment planning of various dental conditions. Students will learn about the different types of dental radiographs, including intraoral and extraoral radiographs, and their indications, limitations, and appropriate techniques. The course will cover topics such as radiographic anatomy, radiographic interpretation, and the recognition of common dental pathologies, such as caries, periodontal diseases and dental anomalies. Students will also learn about the principles of radiation safety and protection, including the proper use of radiation-emitting devices and the reduction of patient and operator exposure. Additionally, students will explore the integration of oral radiology with other dental specialties, such as endodontics, oral surgery, and orthodontics, in order to set up a proper treatment plan.

Prerequisites: 71 Earned Credits

Credits: 2

DEN 400 - Oral and Maxillofacial Radiology + Clinic

This course provides dental students with an understanding of the principles, techniques, and interpretation of radiographic images specific to the oral and maxillofacial regions. Students will learn about advanced imaging modalities, including cone beam computed tomography (CBCT) and panoramic radiography, and their applications in evaluating complex dental and maxillofacial cases. Students will develop the skills to identify anatomical landmarks, detect abnormalities, and formulate differential diagnoses based on radiographic evidence.

Prerequisites: DEN 365

Credits: 2

DEN 401 - Clinical Oral Surgery + Clinic

This course focuses on developing the clinical skills necessary for performing a wide range of oral surgical procedures. Students will gain proficiency in various aspects of clinical oral surgery. They will learn about patient evaluation and treatment planning, surgical techniques, anesthesia administration, and postoperative care. Under the guidance and supervision of experienced faculty members, students will have the opportunity to apply their knowledge and skills in a clinical setting. They will perform oral surgical procedures on patients, applying principles of asepsis, anesthesia, and surgical technique. Different aspects of their work will be given importance, like patient safety, pain management, and effective communication with patients.

Prerequisites: DEN 327

Credits: 4

DEN 415 - Clinical Operative Dentistry + Clinic

This course aims to develop the proficiency of dental students in performing complex restorative procedures. Students will develop a comprehensive understanding of the principles and techniques involved in clinical operative dentistry. They will learn about advanced restorative materials, cavity preparation design, and the selection and placement of various restorative materials. Students will also gain proficiency in the management of compromised tooth structure, treatment of dental caries, and the restoration of fractured teeth. Under the guidance and supervision of experienced faculty members, students will have the opportunity

to apply their knowledge and skills in a clinical setting. They will treat patients requiring restorative dental care, focusing on achieving precise tooth preparation, proper isolation, accurate restoration placement, and occlusal adjustment.

Prerequisites: 87 earned Credits

Credits: 3

DEN 420 - Oral Pathology I + Lab

This course introduces dental students to the study of oral diseases and their manifestations in the oral and maxillofacial region. Students will develop an understanding of the etiology, pathogenesis, clinical features, and management of various oral diseases and disorders. Topics covered include the classification and pathogenesis of oral diseases, oral manifestations of systemic diseases, immune-mediated oral diseases, infectious diseases, precancerous lesions, and oral cancer. Students will be able to recognize and diagnose oral lesions through the analysis of clinical presentation, histopathology, and radiographic findings. The course also emphasizes the importance of accurate microscopic examination and histopathological interpretation in oral biopsy samples.

Prerequisites: 87 Earned Credits

Credits: 2

DEN 425 - Clinical Periodontics + Clinic

This course will introduce students to the etiology of periodontal diseases and the various relationships of periodontal diseases to systemic health and vice versa. In the clinical part, focus will be on phase I periodontal therapy (that is, non-surgical), with early stages of periodontal disease, in order to avoid the development of advanced periodontal disease. In clinics, students will learn how to properly construct a patient information sheet, perform both clinical and radiographical examinations, diagnose periodontal diseases and manage these patients through non-surgical periodontal therapy.

Prerequisites: DEN 326

Credits: 4

DEN 455 - Clinical Orthodontics + Clinic

This course provides dental students with knowledge of the diagnosis, treatment planning, and management of malocclusions and dentofacial abnormalities. Students will develop a comprehensive understanding of orthodontic principles, techniques, and appliances. They will learn to assess and diagnose various types of malocclusions, analyze cephalometric and radiographic records, and formulate individualized treatment plans. The course covers a wide range of topics, including growth and development of the craniofacial complex, craniofacial anomalies, orthodontic biomechanics, and treatment modalities. Students will learn about the different types of fixed and removable orthodontic appliances, their indications, and clinical protocols for their use. The course will cover subjects in orthodontic wire bending and the mechanics of tooth movement.

Prerequisites: DEN 355

Credits: 4

DEN 430 - Oral Pathology II + Lab

This course builds upon the foundational knowledge in Oral Pathology I. In this course, dental students further deepen their understanding of complex oral diseases and expand their diagnostic and management skills. Students will refine their skills in analyzing histopathological reports and correlating them with clinical findings. Additionally, the course emphasizes the integration of oral pathology knowledge with other dental disciplines for comprehensive patient care. Also, the students will practice the steps of preparing for a biopsy.

Prerequisites: DEN 420

Credits: 2

DEN 438 - Basics of Endodontics + Clinic

This course is designed to formulate a strong foundation for Endodontics. The course focuses on the diagnosis, treatment, and prevention of diseases and injuries affecting the dental pulp and periradicular tissues. Students will understand the anatomy and physiology of the dental pulp, as well as the etiology and pathogenesis of pulpal and periapical diseases. Students will develop the technical skills necessary for performing root canal treatment, including the latest equipment and instruments used in dental clinics.

Prerequisites: DEN 360

Credits: 3

DEN 440 - Clinical Prosthetic Dentistry + Clinic

This course provides dental students with information that focuses on the diagnosis, treatment planning, and placement of prosthetic dental restorations to rehabilitate and enhance the function and esthetics of patients' dentition. This course builds upon the foundational knowledge and skills acquired in pre-clinical prosthodontics courses and provides students with the expertise necessary to deliver comprehensive prosthetic treatments. Students will gain proficiency in obtaining accurate impressions, fabricating custom trays, and creating well-fitting complete and partial dentures. They will also learn techniques for achieving proper occlusion, esthetics, and stability in removable prostheses.

Prerequisites: DEN 324

Credits: 4

DEN 444 - Digital Dentistry + Clinic

This course introduces dental students to the cutting-edge technologies and techniques used in the field of digital dentistry. It explores the application of digital tools and workflows in various aspects of dental practice, including diagnosis, treatment planning, and fabrication of dental restorations. The course covers a wide range of topics, including digital imaging, computer-aided design and manufacturing (CAD/CAM) systems, 3D printing, intraoral scanning, and virtual treatment planning, and their integration in different specialties such as orthodontics and prosthodontics, among others. They will also learn about advanced imaging techniques, such as cone beam computed tomography (CBCT), and their role in implant planning and oral surgery.

Prerequisites: 102 Earned Credits

Credits: 2

DEN 490 - Clinical Practice in Dentistry Field

This summer course is designed to provide dental students with hands-on clinical experience in a dental hospital setting. The course offers an opportunity for students to apply their theoretical knowledge and develop practical skills under the supervision of experienced dental professionals. During the course, students will actively participate in various aspects of dental practice, gaining exposure to different dental specialties and procedures. Under the guidance of dental faculty and clinical instructors, students will rotate through different departments and clinics within the dental hospital, and will learn to take detailed patient histories and perform (intraoral and extraoral) examinations. Students will gain hands-on experience in basic dental procedures, such as oral prophylaxis, dental scaling and polishing, and restorative treatments. They will learn proper infection control protocols, dental instrument handling, and effective communication with patients.

Prerequisites: 120 Earned Credits

Credits: 3

DEN 448 - Advances in Endodontics + Clinic

This course improves students' knowledge of endodontic treatment and explores the latest advancements in the field. The course covers advanced topics as well as the applications of modern techniques and technologies in endodontics, including the use of rotary and reciprocating instrumentation, digital imaging, and magnification aids. Students will also explore regenerative endodontics, vital pulp therapy, and the integration of cone beam computed tomography (CBCT) in endodontic diagnosis and treatment planning.

Prerequisites: DEN 438

Credits: 3

DEN 445 - Oral Medicine + Clinic

This course focuses on the study and diagnosis of oral diseases and conditions affecting the oral and maxillofacial region. This course provides dental students with a comprehensive understanding of oral manifestations of systemic diseases and local oral diseases. Students will explore the etiology, pathogenesis, clinical presentation, and treatment options for various oral diseases and conditions, including oral mucosal diseases, salivary gland disorders, systemic diseases' oral manifestations, and temporomandibular joint disorders. Students will be able to observe and participate in the care of patients with oral manifestations of systemic diseases, including oral cancer, immune-mediated diseases, viral and fungal infections, and oral complications of systemic therapies.

Prerequisites: DEN 430

Credits: 4

DEN 465 - Advances in Orthodontics + Clinic

This course is designed to complement the knowledge and skills gained on the Clinical Orthodontics course. It focuses on the latest advancements in the field of orthodontics, equipping dental students with cutting-edge techniques and innovative approaches to orthodontic treatment. The course covers a wide range of subjects, including advancements in diagnosis and treatment planning, orthodontic biomechanics, craniofacial growth and development, and the use of advanced imaging technologies in orthodontics. Students will gain insights into emerging areas of orthodontic practice, such as clear aligner therapy, and the application of 3D printing and digital treatment planning. They will explore the role of orthodontics in esthetic dentistry and smile design, as well as the management of orthodontic relapse and stability.

Prerequisites: DEN 455

Credits: 3

DEN 475 - Periodontics and Implantology + Clinic

This course will introduce students to more advanced topics regarding periodontics, subjects including treatment of periodontal emergencies, phase 2 (that is, surgical) periodontal therapy. On the other hand, basic principles of periodontal plastic and esthetic surgery will be explained. Furthermore, students will be introduced to dental implantology, where they will be acquainted with the history of dental implants, indications, patient selection, treatment planning, surgical procedure and the maintenance of peri-implant health. In the clinics, students will deal with more advanced treatment of periodontal diseases such as surgical periodontal therapy, periodontal plastic surgery and supportive therapy.

Prerequisites: DEN 425

Credits: 4

DEN 471 - Inter-professional Education for Health care

This course introduces students to the competencies for inter-professional collaboration, defines relevant concepts including inter-professional education, inter-professional practice, models of teamwork and the roles of the different professionals of the healthcare team in

relation to a patient-centered scenario. Students will engage in activities that focus on patient/client/family/community-centered care while building on prior knowledge and experience of role clarification, inter-professional communication and teamwork.

Prerequisites: 123 Earned Credits

Credits: 1

DEN 491 - Graduation Research Project

This course provides an opportunity for students to undertake a significant independent piece of research, drawing upon the knowledge and skills that have been learned during the taught and practical components of the whole course. Students will apply concepts, theories and research techniques, draw on internationally published literature, and develop and interpret knowledge about dentistry in their area of interest. They will write a dissertation on dentistry-related topics of their interest. The dissertation will include the following sections: abstract, introduction, literature review, methodology, findings, conclusions, clinical significance and references. During the project, students will be given detailed instructions and guidelines on the content of individual sections as well as the assessment requirements and marking criteria. Each project will be supervised by an appropriate member of academic staff on a one-to-one basis.

Prerequisites: ENG 203

Credits: 2

DEN 494 - Advances in Prosthodontics + Clinic

This course focuses on the latest advancements, techniques, and technologies in the field of prosthodontics, equipping dental students with the expertise to provide advanced prosthodontic treatment to patients. Building upon the principles covered in fundamental and clinical prosthodontics courses, this course explores cutting-edge developments in prosthodontics and introduces students to innovative treatment modalities and materials. Students will formulate deeper understanding on the aspects of prosthodontics, including esthetics, occlusion, implant dentistry, and digital dentistry.

Prerequisites: 140 Earned Credits

Credits: 4

DEN 495 - Oral and Maxillofacial Surgery + Clinic

This course focuses on the diagnosis, treatment, and management of various oral and maxillofacial conditions, ranging from routine dental extractions to complex surgical procedures. Students will learn and be trained to assess and diagnose a wide range of conditions, including impacted teeth, facial trauma, temporomandibular joint disorders, and dental implant surgery etc. The course covers fundamental topics in oral and maxillofacial surgery, including preoperative assessment, wound healing, principles of asepsis and infection control, and postoperative care.

Prerequisites: 140 Earned Credits

Credits: 4

DEN 496 - Pediatric Dentistry + Clinic

The course is designed to equip dental students with the knowledge and skills necessary for the oral healthcare of infants, children, and adolescents. This course focuses on the unique aspects of dental care for pediatric patients, including preventive measures, behavior management, the treatment of common oral health issues, and the materials and instruments used specific to this age group. The course covers a wide range of topics and dental procedures related to pediatric dentistry, including the diagnosis and treatment of dental caries, management of dental trauma, interceptive orthodontics, and oral habits.

Prerequisites: 140 Earned Credits

Credits: 4

DEN 497 - Clinical Fixed Prosthodontics + Clinic

This course integrates theoretical knowledge and clinical skills in the field of fixed prosthodontics. Students will learn the principles and techniques necessary for the diagnosis, treatment planning, and delivery of fixed dental restorations. Students will gain a deep understanding of occlusion, tooth preparation, material selection, and laboratory communication. The course will also cover emerging technologies and digital workflows in fixed prosthodontics, such as intraoral scanners and the maintenance of a fixed prosthesis.

Prerequisites: 140 Earned Credits

Credits: 3

DEN 498 - Preventive Dentistry

This course provides students with the importance of preventive measures in maintaining optimal oral health and preventing dental diseases. Students will learn about the etiology, risk factors, and progression of common oral diseases, including dental caries, periodontal diseases, and oral mucosal disorders. The course will focus on evidence-based preventive strategies, including oral hygiene instruction, dietary counseling, and fluoride therapy. Students will also explore the role of preventive measures in the management of specific patient populations, such as children, pregnant women, and individuals with systemic health conditions. They will understand the importance of early intervention and risk assessment in preventing oral diseases and promoting overall well-being.

Prerequisites: 140 Earned Credits

Credits: 1

Pharmacy Program Course Descriptions

HPS 101: Healthcare Systems and Pharmacy Skills Development

This subject delivers pharmacy soft skills development. The course provides a history of pharmacy, medicine, diseases, fundamentals of community pharmacy, the pharmacist job description, pharmacy management outlines, patient reception and education, and the role of retail pharmacies in the healthcare system. In addition, the students will also learn soft skills, including interpersonal and communication, listening, time management, problem-solving, leadership, empathy, adaptability, creative thinking, teamwork, and job-specific skills. They will be placed in the pharmacy lab and perform workshops with problem-based assignments outside the university campus. The students will learn about the major internationally recognized healthcare systems and the local ones. The compartments of a healthcare system and its composition, duties, and responsibilities. There will be a focus on patient-centered healthcare and patient rights, emphasizing the humanitarian aspects of the pharmacy profession. The course will also include the financial support of healthcare systems and health insurance strategies.

Prerequisite: None

Credits: 1

TER 101: Medical Terminology

The semester presents medical language vocabulary, abbreviations, and symbols. Highlighting is placed on building medical terms using prefixes, suffixes, and word roots. The course will also introduce the medical background of the human body systems and parts in normal and disease conditions. The diagnostic procedures and pharmacologic expressions will be discussed, including medical abbreviations, medication classes, prescriptions, and diagnostic reports.

Prerequisite: None

Credits: 2

CHP 102P: Chemistry for Pharmacy + Lab (2 Theory + 1 Practical)

The course introduces the students to introductory chemistry concepts, including atomic structure; the periodic table; electronic distribution of the atoms; the mole concept; stoichiometric calculations; solutions; acids and bases; buffers, chemical bonding, molecular structures, and intermolecular interactions and the properties of liquids and solids. This course also includes practical experiments, including volumetric and gravimetric assays, normality, molarity, formality, and molality measurements, acid-base and redox titrations, pH calculations and buffer solutions' preparations and classifications, and chromatographic assays.

Prerequisite: None

Credits: 3

PHC 102: Pharmaceutical Calculations I

This course is an introduction to the world of pharmacy and pharmaceutical sciences that provides the student with the knowledge and skills required to perform various pharmaceutical calculations necessary to prepare and dispense medications. This course includes three main parts. Firstly, introduce the students to the medical and pharmaceutical abbreviations required to interpret prescriptions and medication orders. Secondly, familiarize the student with the computation and calculation skills required for dosages and compounding practices. This semester's topics include electrolytes solutions, isotonic and buffer solutions, and selected calculations in pharmacy care.

Prerequisite: MTH133

Credits: 2

BIO 102P: Human Biology and Histology + Lab (3 Theory + 1 Practical)

The course includes the human cell structure and its compartments with their functions: the cell division process and the role of proteins in cell division. The subject displays the histology of skin layers, eyes, nasal cavity, liver, kidneys, adipose, gastrointestinal, blood, and brain tissues, describing each layer and its functions. There will be slide presentations for each of the described layers. The students will learn molecular biology principles, the regulatory pathways controlling cell replication, gene expression, and protein synthesis, emphasizing their therapeutic application and progress. The molecular basis of Cancer, cellular, molecular targeting in Cancer and viral infections, molecular-based multiple-drug resistance in Cancer. In this semester, the dideoxy nucleotide therapeutics approaches, RNAi, viral vectors in gene therapy, stem cells, and cloning will be also studied. The experimental part includes microscopic human cell identification, cell compartments, and division. Practical histology includes microscopic demonstration of human tissue layers and their identification.

Prerequisite: None

Credits: 4

PHY 102P: Human Anatomy and Physiology I + Lab (2 Theory + 1 Practical)

This course offers the fundamentals of human physiology. The topics include body organization, homeostasis, action potential, signal transduction, integumentary, skeletal, muscular, movement, nervous systems, consciousness, and special senses. The practical sessions include microscopic study, physiologic experiments, electrocardiogram, electroencephalogram, respiration, spirometry, blood film and cross match, blood pressure measurements, computer simulations, and multimedia presentations.

Prerequisite: 12 earned credits

Credits: 3

ORG 203P: Organic Chemistry I + Lab (2 Theory + 1 Practical)

This course includes the fundamentals of the organic compound's molecular structures, the nomenclature (Common and IUPAC), chemical structure, reactions, and synthesis of the alkanes, alkenes, alkynes, cyclic, aromatic, vinyl, aryls, and polymers. The students will also learn how to use and apply the chemical drawing programs, including ChemDoodle, ChemDraw, and ChemOffice, and the spectrometric identification of each included organic functional group. The practical sessions will include the solubility, identification, chemical reactions, and synthesis of the addressed functional groups.

Prerequisite: CH102P

Credits: 3

PHY 203: Human Anatomy and Physiology II

Human Anatomy and Physiology II provide an integrated course on the anatomy and physiology of several body organs' structure and functions, including the cardiovascular system, respiratory system, endocrine system, digestive system, renal system, reproduction, and electrolytes distribution and imbalances.

Prerequisite: PHY102P

Credits: 3

MCR 203P: Pharmaceutical Microbiology I (Bacteriology) + Lab (2 Theory + 1 Practical)

The course covers the fundamentals of microbiology of normal flora and infectious disease. The semester studies common prokaryotes and eukaryotes' features, the bacterial cells' structure, physiology, genetics, and growth. The course covers the pathology of infectious diseases and the causative bacterial pathogens. The molecular targeting of the cellular components for the antibiotics and the resistance mechanisms. The semester will also cover community causative agents, hospital-acquired infections, and other infectious diseases. The disinfection and sterilization methods will also be addressed. The lab course covers various lab skills of media

use, culturing, slide-staining, use of lab materials, and processes relating to microorganisms.

Prerequisite: BIO102P

Credits: 3

PHC 203P: Pharmaceutical Calculations II + Lab (2 Theory + 1 Practical)

This is the second semester of the introduction to the pharmaceutical sciences that provides the student with the knowledge and skills to perform various necessary pharmaceutical calculations to prepare and dispense medications at a higher level. This course has theoretical and practical parts. In the theoretical part, the topics include selected calculations involving active drug moiety, contemporary compounding subjects, intravenous infusions, and parenteral nutrition calculations. In addition to the skills acquired in pharmaceutical calculation I and the theoretical part. In the experimental part, the students will be trained to get hands-on lab skills to use measuring tools in compounding and calculating doses.

Prerequisite: PHC102P

Credits: 3

COM 204: Pharmacy Communication Skills

The course develops and enhances students' oral communication skills (listening, speaking, questioning, and presentation) and written communication skills essential for implementing pharmaceutical care. The course aims at providing students with tools and techniques for effective interpersonal communication by introducing students to the main components of communication (verbal and nonverbal). It also provides the student with professional communication skills needed to improve and utilize their skills to deal with patients in diverse pharmacy practice settings in everyday encounters. In addition, it will cover professional communications, including inter- and intra-professional communication and being part of a team. Moreover, the students will learn the communication skills required to provide telepharmacy services.

Prerequisite: HPS101

Credits: 2

ORG 204P: Organic Chemistry II + Lab (3 Theory + 1 Practical)

This course is a continuation of organic chemistry I. It presents the students with organic compounds' chemistry, properties, synthesis, reactions, stereochemistry, and nomenclature. The course also studies amines, carboxylic acid derivatives, condensations, and aromatics substitution. The practical experiments will cover the discussed functional groups' reactions, identification, and spectral analysis.

Prerequisite: ORG203P

Credits: 4

BCH 204P: Biochemistry + Lab (2 Theory + 1 Practical)

The course introduces biochemistry, the basic structures and functions of proteins, carbohydrates, lipids, and nucleic acids. The enzyme's structure, synthesis, and functions in the cellular biochemical reactions. The classification of the biochemical molecule, the enzymatic modules, transcription, translation, and 3-dimensional protein structures. The semester will also discuss intracellular and nuclear messengers. The practical sessions include the identification of cellular biomolecules and the determination of their serum concentrations.

Prerequisite: ORG203P

Credits: 3

MCR 204: Pharmaceutical Microbiology II (Parasitology and Virology)

The semester includes host-parasite relationships and the normal flora, the pathogenesis of fungi, protozoa, helminths, and virology. In addition, the lecturers deliver molecular targeting

for antiviral agents, viral diseases, and antiviral drugs. Antifungal and antiviral therapy tactics and management protocols, including community-based control measurements and the WHO regulations and standards.

Prerequisite: MCR203P

Credits: 2

PPE 204P: Pharmacy Practice Experience I (PPE I) (Practical)

This course introduces the students to the community pharmacy environment. It provides them with the basic and essential knowledge of community pharmacy's organizational structure, workflow, arrangement of medications according to FDA classification, prescriptions, OTC medications, aspects of pharmacy profession practice, pharmacist's job description, and scopes of pharmacy practice in the area. The program director will supervise the students and assess their practice and progression through reports, assignments, quizzes, seminars, or other forms of continuous assessment.

Prerequisite: 45 earned credits

Credits: 1

OTC 204P: Care and OTC Therapy + Lab (1 Theory + 1 Practical)

The course will describe the different ways of responding to symptoms in community pharmacies. The major classes of Over-The-Counter medications and self-care remedies (analgesics, dermal preparations, gastrointestinal medicine, vitamins, and minerals). Additionally, different OTC therapy for minor eye, women's health, and respiratory conditions will be discussed in this course. Finally, the concepts and practices of self-care via pharmaceuticals will be introduced. The practical sessions provide placements in retail pharmacies and demonstrating OTC medications dispensing and instructions to patients.

Prerequisite: 45 earned credits

Credits: 1

DRG 205: Drug Informatics

This course will include drug information, fundamentals of the practice of drug info, types of drug information resources with evaluation for each, application of drug information skills for the delivery of pharmaceutical care, understanding the practical implications of the drug information, technology of drug information, and retrieval for quality assurance.

Prerequisite: OTC204P, PPE204P

Credits: 2

DOS 305P: Dosage Forms I + Lab (3 Theory + 1 Practical)

This course introduces the students to the physicochemical aspects of dosage form design and formulation. The semester comprises the basis of Dosage Forms II and III subjects. It includes the physicochemical basis of crystalline, amorphous, and polymorphism dosage forms and the dissolution process. It also covers the physicochemical aspects of liquid dosage forms, drug solubility and solution properties, surfactants, emulsions, suspensions, and other dispersed systems. Additionally, it covers the stability of different dosage forms and the kinetics of the degradation of drugs—finally, the physicochemical properties of polymers.

Prerequisite: PHC203P

Credits: 4

BCH 305: Clinical Biochemistry

This course will discuss the metabolism of carbohydrates, lipids, proteins, nucleic acids, and erythrose-4-phosphate shunt. Studying the active enzymes, energy fate, electron transfer, and essential building blocks is necessary to understand metabolism. This semester will also cover metabolic diseases and hormonal imbalances. The semester also provides information on the

clinical and biochemical lab tests, the correlation between the clinical lab investigations, lab results, and drug-lab test interactions.

Prerequisite: BCH204P

Credits: 4

PHA 305P: Pharmaceutical Analysis + Lab (2 Theory + 1 Practical)

This course introduces students to the main instrumental methods used for separating, identifying, and quantifying pharmaceutical products. The course addresses the theoretical and practical aspects of UV-Visible Spectroscopy, Liquid Chromatography, Gas Chromatography, Mass Spectrometry, Nuclear Magnetic Resonance spectroscopy, and Thin Layer Chromatography. The experimental part includes different titrimetric methods used in the analysis of drugs and the criteria used to validate analytical procedures and performing several spectrometric analysis for selected known and unknown drug samples with their interpretations.

Prerequisite: ORG204P

Credits: 3

COL 305: Foundation of Pharmacology

This course is designed to introduce basic pharmacology and pharmacotherapy concepts. A thorough grounding in pharmacokinetic and pharmacodynamics principles based on quantum physics and thermodynamics (ligand-protein energy levels) will be given. The pharmacological actions and therapeutic uses of drugs acting on the sympathetic and parasympathetic divisions of the autonomic nervous system will be discussed. Therapeutically useful neuromuscular blocking drugs and drugs used in the respiratory system will also be discussed. In addition, the course covers aspects of pharmacogenomics and pharmacogenomics. Autacoids and selected neurotransmitter substances are also covered, including histamine, 5-HT, PGs, NO, and endothelin. In studying pharmacotherapeutics agents, emphasis is made on their mechanisms of action, pharmacokinetics, therapeutic indications, adverse effects, and contraindications. This course also includes practical experiments.

Prerequisite: PHY203

Credits: 2

IMM 305: Immunology and Vaccination

This course introduces students to the concepts of immunology and their relation to diseases and therapy. Types of vaccines and their mechanism of action. Vaccines' design and formulations, vaccination-related therapeutic implications, and pharmaceutical care.

Prerequisite: MCR204

Credits: 2

PPE 305P: Pharmacy Practice Experience II (PPE II) (Practical)

This course introduces the students to the hospital pharmacy and ward's environment. It provides them with the basic and essential knowledge of the hospital pharmacy's organizational structure, workflow, various departments, pharmacist's job description, how to become a part of the healthcare team, and scopes of pharmaceutical care practice and clinical pharmacy in the area. In addition, nutrition, including parenteral and internal nutrition, will be covered. The program director will supervise the students and assess their practice and progression through reports, assignments, quizzes, seminars, or other forms of continuous assessments.

Prerequisite: PPE204P

Credits: 1

DRG 306: Drug Development and Innovation

This course covers the early stages of the drug development process. It includes innovative drug discovery and development stages and the reasons for the continuous need for new drugs. Success and failure stories in drug discovery and development are taught to emphasize the importance of drug discovery and lead optimization processes for fixing physicochemical and biopharmaceutical issues. Furthermore, the importance of primary and secondary literature, patents for innovation, IND, NDA, ANDA, and CTD, and market authorization approvals from different countries will also be discussed. Finally, the opportunities and challenges associated with creating and managing entrepreneurial pharmaceutical startups and pharmacy facilities will be discussed. The course provides pharmacists interested in new ideas related to pharmaceutical products or services with a basic understanding of the processes used to translate new pharmaceutical technologies and inventions into marketable innovations and new pharmaceutical ventures. The course also provides an overview of pharmaceutical business concepts, including topics such as theories of entrepreneurship, types and characteristics of entrepreneurship, entrepreneurial economics, accounting, and financial management, pharmacy staff management, pharmacy ethics and responsibilities towards patients, intellectual properties, drug life cycle, marketing research and planning, and use of technology.

Prerequisite: ORG204P, COL305

Credits: 2

IPITIA 306: Integrated Pathophysiology, Pharmacology, and Therapeutics IA

This course shelters pathophysiology, pharmacology, and therapeutics of cardiovascular disorders, including hypertension, coronary heart disease, heart failure, acute coronary syndrome (STMI and NSTMI), arrhythmias, hyperlipidemia, stroke, venous thromboembolism (DVT and Pulmonary Embolism) and shock.

Prerequisite: CLO305

Credits: 4

IPITIB 306: Integrated Pathophysiology, Pharmacology, and Therapeutics IB

This course covers respiratory and infectious diseases' pathophysiology, pharmacology, and therapeutics. Enclosed topics include upper respiratory tract diseases, asthma, COPD, Cystic fibrosis, antimicrobial regimen selection process, laboratory tests to direct antimicrobial pharmacotherapy, lower and upper respiratory tract infections, Urinary Tract Infections, Skin, and Soft Tissue Infections, Central Nervous System Infections, Invasive Fungal Infections, antimicrobial stewardship, and antiviral drugs and viral infections.

Prerequisite: CLO305

Credits: 4

PHS 306P: Pharmacy Skills I (Practical)

Clinical cases related to cardiovascular, respiratory, and infectious diseases will be thoroughly presented and discussed. This course is designed to develop and practice clinical skills necessary to solve problems related to supplying patients with cost-effective and safe treatment through discussion of clinical cases of patients. The course will include hands-on experience for education, counseling, history taking, and role-playing related to asthma devices, glucose meters, blood pressure machines, peak flow meters, and others. Also, the clinical case scenario will cover the interpretation of lab data related to these diseases and their interaction with specific lab tests.

Prerequisite: CLO305, PPE305P

Credits: 1

PPE 306P: Pharmacy Practice Experience III (PPE III) (Practical)

This course is also a community pharmacy-based practice and a continuation of PPEI at an advanced level. It provides the students with assessment techniques (SOAPing system), components of patient care process and documentation, pharmaceutical care planning, types and identification of drug therapy problems, patient assessment, and follow-ups. Concepts of health literacy, health outcomes and quality of life of patients, medication safety, and pharmaceutical care for particular populations (pediatrics, geriatrics, breastfeeding, and pregnant women) will also be covered. The course also includes steps of drug registration, essential skills to identify pharmaceutical incompatibilities, and techniques needed to identify drug interactions and adverse effects in patient-centered care management. The subject will include the most common communicable diseases and the prevention strategies emphasizing smoking cessation and weight reduction. The program director will supervise the students and assess their practice and progression through reports, assignments, quizzes, seminars, or other forms of continuous assessment.

Prerequisite: PPE204P

Credits: 1

DOS 306P: Dosage Forms II + Lab (2 Theory + 1 Practical)

This course introduces the students to pharmaceuticals, pharmaceutical compounding, and technology. This course helps an individual to get hands-on expertise as a compounding pharmacist. It focuses on the design formulation of liquid dosage forms, especially solutions, syrups, suspensions, and emulsions. It also introduces the students to advanced and semisolid dosage forms. This course enables students to select various additives (excipients) to be included in the formulation based on their needs. The Units, liquid dosage forms, and semisolid dosage forms include the complete formulation process, packaging, and evaluation at a small-scale level. In addition, the concept of pharmaceutical aerosols and the compounding aspects involved in ophthalmic preparations will be introduced.

Prerequisite: DOS305P

Credits: 3

PCH 306: Chemical Basis of Drug Action I

This course aims to introduce students to factual knowledge about Medicinal Chemistry, drug-enzyme and drug-receptor interactions, including the design and types of agonists, antagonists, inverse agonists, and partial agonists, types of inhibitors, qualitative structure-activity relationships (SAR), quantitative structure-activity relationships (QSAR). Case studies about qualitative and quantitative optimization of lead molecules. The medicinal chemistry aspects of metabolic biotransformation of drugs are covered in this course. Furthermore, providing information on the medicinal chemistry the cardiovascular agents, drugs used for the respiratory tract, and antibiotics. This course covers classes of therapeutic agents such as angiotensin-converting enzyme (ACE) inhibitors, antianginal, and antiarrhythmic inhibitors.

Prerequisite: ORG204P

Credits: 3

IPTIIA 407: Integrated Pathophysiology, Pharmacology, and Therapeutics IIA

This course covers pathophysiology, pharmacology, and therapeutics of neurological, psychiatric, and geriatric diseases. Topics covered in neurology include epilepsy, headache, pain management, Alzheimer's disease, and Parkinson's disease. Topics in psychiatric diseases are major depression, anxiety disorders, bipolar disorders, sleep disorders, and substance abuse.

Prerequisite: IPTIA 306, IPTIB 306, PHS 306P

Credits: 4

IPTIIB 407: Integrated Pathophysiology, Pharmacology, and Therapeutics IIB

This course covers endocrine and renal diseases' pathophysiology, pharmacology, and therapeutics. Specifically, the course will shelter the hypothalamic-pituitary-adrenal (HPA) axis, thyroid, parathyroid and adrenocortical dysfunction, diabetes, men's and women's health, and acute and chronic and drug-induced renal disease.

Prerequisite: IPTIA 306, IPTIB 306, PHS 306P

Credits: 4

PHS 407P: Pharmacy Skills II (Practical)

This course is designed to develop and practice clinical skills necessary to solve problems related to supplying patients with cost-effective and safe treatment by discussing clinical cases of patients suffering from neurologic and psychiatric diseases/disorders and endocrine, renal, and geriatric diseases. In addition, this practical course will cover topics related to patient-centered care and the pharmaceutical care process, including steps for pharmaceutical care application. Also, the clinical case scenario will cover the interpretation of lab data related to these diseases and their interaction with specific lab tests.

Prerequisite: PHS306P

Credits: 1

PCH 407: Chemical Basis of Drug Action II

This course deliberates CNS drugs, including adrenergic, cholinergic, antidiabetic, non-steroidal anti-inflammatory agents, hormones, antipsychotics, antiparkinsonians, opioid analgesics, and antidepressant agents. In addition, the anti-infective agents, including antibacterial, antifungal, and antiviral drugs, are covered in this course in addition to the chemotherapeutic anticancer agents.

Prerequisite: PCH306

Credits: 2

PPE 407P: Pharmacy Practice Experience IV (PPE IV) (Practical)

This course is also a hospital-based practice and a continuation of PPEII at an advanced level. The students will directly contact the patients and other healthcare professionals in different wards. It provides the students with assessment techniques (SOAPing system), components of patient care process and documentation, pharmaceutical care planning, types and identification of drug therapy problems, patient assessment, and follow-ups. Concepts of health literacy, health outcomes and quality of life of patients, medication safety, and pharmaceutical care for a particular population (pediatrics, geriatrics, breastfeeding, and pregnant women) will also be covered. The course also includes basic concepts in pharmacoeconomics and its use in clinical decision-making, skills to identify pharmaceutical incompatibilities, and techniques needed to identify drug interactions and adverse effects in patient-centered care management. The program director will supervise the students and assess their practice and progression through reports, assignments, quizzes, seminars, or other forms of continuous assessment.

Prerequisite: PPE305P

Credits: 1

DOS 407P: Dosage Forms III + Lab (2 Theory + 1 Practical)

This course is the second part of the basics of pharmaceuticals, pharmaceutical compounding, and technology. This course helps an individual to get hands-on expertise as a compounding pharmacist. It focuses on the design formulation of solid dosage forms, especially powders, granules, capsules, and tablets. It also introduces the students to the basics of advanced dosage forms of Modified Release dosage forms. The last part focuses on the more advanced dosage forms, like transdermal ones.

Prerequisite: DOS306P

Credits: 3

COG 407: Pharmacognosy and Plant Poisons

The course is designed to give the basic student knowledge about different chemical classes of natural medicines, toxins, and their botanical sources. Furthermore, it will provide the students with straightforward production methods, pharmacological activities, and abuse. It also includes extraction, characterization, and detection methods, either ex vivo from medicinal plants or pure chemicals. The course covers the fundamentals of natural products chemistry and utilization of the secondary metabolites as medications with their pharmacological effects. The course also aims to provide pharmacy students with sufficient knowledge about investigating crime scenes and intoxication caused by natural toxins. In addition, methods related to the examination and identification of the collected evidence are provided, and real-life applications will be discussed.

Prerequisite: ORG204P, BCH305, COL305

Credits: 3

IPP407-AP: Introductory Pharmacy Placement I (IPP-I) (Practical)

Students will shadow a registered pharmacist to understand the community pharmacist's role in primary care. (SUMMER TRAINING)

Prerequisite: OTC204P, DRG305, COL305

Credits: 1

CAM 408: Complementary and Alternative Medicine

This course provides a descriptive knowledge of locally and internationally registered naturally derived medications and the alternative medicines used for disease management, including the cardiovascular, nervous, respiratory, gastrointestinal, renal, endocrine, dermatological, and musculoskeletal systems. Pharmacological properties, therapeutic uses, method, duration of use, drug interactions, and adverse effects will be covered. This course also includes the practical component of clinical case discussion related to phytotherapy and alternative medicine use.

Prerequisite: COG 407

Credits: 2

IPTIII 408: Integrated Pathophysiology, Pharmacology, and Therapeutics III

The course covers pathophysiology, pharmacology, and therapeutics of immunological, joint, and bone disorders and gastrointestinal diseases. The topics covered in this course include systemic Lupus Erythematosus, Drug Allergy, solid organ transplantation, gout and hyperuricemia, osteoarthritis, rheumatoid arthritis, and osteoporosis. For gastrointestinal: cirrhosis, GERD, peptic ulcer, diarrhea, constipation, IBD, and Nausea and vomiting.

Prerequisite: IPTIIA407, IPTIIB407, PHS407P

Credits: 4

PHS 408P: Pharmacy Skills III (Practical)

This course is designed to develop and practice clinical skills necessary to solve problems related to supplying patients with cost-effective and safe treatment by discussing clinical cases of patients suffering from immune, bone and joint, and gastrointestinal diseases/disorders. In addition, the course will involve developing students' problem-solving abilities and analytical thinking skills in pharmacy practice through using problem-solving techniques and effective utilization of available resources. Also, clinical case scenarios will cover the interpretation of lab data related to these diseases and their interaction with specific lab tests.

Prerequisite: PHS407P

Credits: 1

BPH 408: Pharmacokinetics and Biopharmaceutics

This course introduces students to the concepts of pharmacokinetics and biopharmaceutics. The course covers the structure of membranes and drug movement across membranes, distribution and absorption mechanisms, and formulation factors affecting physiological outcomes regarding bioavailability and drug product selection. In addition, it introduces the students to the differences between administration routes and how they would affect bioavailability. This course will also study the effect of the physicochemical properties of the drug as well as dosage form factors on the rate and extent of absorption of drugs from the GIT. The pharmacokinetics topics covered in this course include pharmacokinetics of intravenous and extravascular administrations, compartmental PK modeling; multiple dosing kinetics; hepatic and renal clearance; and bioequivalence.

Prerequisite: DOS407P

Credits: 4

DRD 408: Advanced Drug Delivery Systems

The course covers topics related to novel drug delivery systems. The course focuses on the novel aspects of drug formulation designs and administration, such as controlled drug delivery by different routes of administration, such as oral, parenteral, transdermal, vaginal, ocular, and pre-gastric routes. The course also covers novel approaches for developing novel delivery systems such as nano and microencapsulation, liposomes, and combined devices for the targeted delivery of small and large molecules for Cancer and gene therapy.

Prerequisite: PCH407, DOS407P

Credits: 3

IPTIV 509: Integrated Pathophysiology, Pharmacology, and Therapeutics IV

Includes the relationship between pathophysiology, pharmacology, and therapeutics of hematological, oncological, gynecologic, and obstetric disorders. Hematological disorders include anemias and coagulation disorders: oncology pharmacotherapy and the different types of tumors (solid and non-solid tumors) and their treatment protocols. Gynecologic and obstetric disorders such as menstruation-related disorders, contraception, endometriosis, and hormone replacement therapy for menopause will also be covered.

Prerequisite: IPTIII 408, PHS 408P

Credits: 4

PHS 509P: Pharmacy Skill IV (Practical)

This course is designed to develop and practice clinical skills necessary to solve problems related to supplying patients with cost-effective and safe treatment through discussing clinical cases of patients/cases suffering from hematological, cancerous, or gynecological illnesses. In addition, the course will involve developing students' problem-solving abilities and analytical thinking skills in pharmacy practice through using problem-solving techniques and effective utilization of available resources. Also, clinical case scenarios will cover the interpretation of lab data related to these diseases and their interaction with specific lab tests.

Prerequisite: PHS408p

Credits: 1

GRP 509P: Graduation Project + Lab (2 Theory + 1 Practical)

This course provides the students with the skills needed to deal with a scientific problem and how to solve it (or write a review article with updated information about a specific problem). It consists of a literature review, proper equipment, and instrument handling, performing research experiments and data analysis, writing the dissertation, and presenting a seminar about the work.

Prerequisite: Senior Standing

Credits: 3

MAN 509: Pharmacy Management, Ethics, and Law

This course covers the principles and components of pharmaceutical business management in pharmacy practice and marketing. Management topics covered include general operations; personnel and human resource management; strategic, financial, and business planning, goods, and merchandising; value-added services; drug utilization studies; medicine safety; prevention of medication errors; and risk management. Students will be able to learn about the importance of strategic planning pharmacy practice. They will be asked to work in a group to develop a SWOT analysis comparing different colleges of pharmacy locally and internationally. Conditions and factors relevant to employment; working effectively within an organization, planning pharmacy services and resources; safety in the work environment will be discussed throughout different chapters. Pharmaceutical Marketing covers functions of the pharmaceutical marketing department, selling, transport, distribution, storage and order system, and promotion principles. This prepares future pharmacy practitioners with the fundamentals of analytical and decision-making skills to create basic marketing strategies. This course aims to introduce pharmaceutical law and principles of ethics in pharmacy. The course covers the laws and regulations related to medical products and the pharmacy profession and their impact on pharmacy practice. In the law section, the students will learn the legislative framework in which pharmacy is practiced and the laws, regulations, and ethical responsibilities applicable to pharmacists to protect the public and ensure patients' well-being. It also covers the laws and regulations that control importing, exporting, storing, handling, promoting, and manufacturing pharmaceutical products.

In the ethics part, the course covers many topics in pharmacy practice, such as ethical principles and ethical dilemmas in pharmacy practice, the code of ethics for pharmacists, professionalism, and significant ethical problems in the pharmacy practice and the appropriate interventions. This course will cover the fundamentals and concepts of regulating pharmaceuticals in different countries. The course will introduce major international and local regulatory agencies like FDA, EMA, and MOHAP and their regulatory roles. The course will focus on the different types of applications, including IND, NDA, ANDA, and CTD, to obtain market authorization approvals from different countries. In addition, regulations and requirements for nonclinical studies, clinical trials, submission and review processes, and current good manufacturing practice (cGMP) will be discussed.

Prerequisite: PPE305P, PPE407P, IPP407-AP

Credits: 3

IND 509P: Industrial Pharmacy + Lab (3 Theory + 1 Lab)

This course provides the science and expertise of formulation and manufacturing at a large scale. It provides knowledge on mixing, and milling, separation of large-scale processes. It takes different dosage forms, the manufacturing process of non-sterile dosage forms like tablets, capsules, solutions, suspensions, and polymer dosage forms. It also considers the GMP rules of manufacturing. This course is accompanied by field trips to local pharmaceutical industries to familiarize the students with the nature of the industries in the country.

Prerequisite: DOS407P, DRD408

Credits: 4

DLE 509: Clinical Drug Literature Evaluation (Research Methodology)

The course will describe the hierarchy of evidence and the level of evidence. How critically appraise the literature, clinically and statistically? The crucial parts of literature and the importance of selecting an appropriate study design. The course will also discuss the research philosophy, research question, subjects, variables, sample size, exclusion/inclusion criteria, and

different research methods (cohort studies, surveys, case studies, case-control studies, and randomized clinical trials). Finally, using appropriate statistical tests to analyze the literature results.

Prerequisite: DRG305P, COL305, IPTIII408, PHS408P

Credits: 1

IPE 509P: Interprofessional Education (Practical)

The course provides multidisciplinary learning for students from several specialties. They involve different professional students to learn from each other and appreciate the significant contribution of other professions to education and civilization. The semester will enroll medical and other specialties in workshops to enhance teamwork, acceptance of other opinions, and demonstrate shared decision-making skills. The students will also learn the responsibility for patient and community healthcare. Through learned skills, the students can be up-to-challenges in the field through optimized collaboration.

Prerequisite: PPE 306P, PPE 407P, IPP 407-AP, IPTIV 509

Credits: 1

IPP509-AP: Introductory Pharmacy Placement II (IPP-II) (Practical)

Students will shadow and help a registered pharmacist to dispense OTC medications to patients in the community pharmacy setting. (Summer training).

Prerequisite: IPP407-AP

Credits: 1

GNX 510: Integrated Pharmaceutical Biotechnology, Pharmacogenomics, and Personalized Medicine

Pharmaceutical biotechnology introduces the students to basic concepts, theories, and principles of biotechnology to produce therapeutic and diagnostic agents. Students will learn about various cellular and molecular biotechnology techniques such as recombinant DNA technology, polymerase chain reaction and related biotechnological processes, and the method used to formulate and characterize biopharmaceuticals. The recent application of biotechnology, especially in the treatment of infectious diseases, hormone replacement therapy, immunological products, gene therapy, and cell-based therapy, will be discussed to increase the knowledge and expertise of pharmacy students in the development, application, and therapeutic use of 'biotech' drugs. The semester displays the evolving pharmacogenomics, and personalized therapy approaches in modern healthcare services. Genetic enrolment and applications in precision medicine using modern techniques provide promising prospects for patient-specific treatments. The course provides the fundamentals of gene therapy. It develops skilled students with evidence-based tactics and capabilities to match the growing field.

Prerequisite: BIO102P, COG407, IPTIV509

Credits: 3

SIM 510P: Simulation Pharmacy (Practical)

This course will include practical skills required for pharmacists in clinical pharmacy. Through clinical cases and role-play, the students will practice communication with patients and healthcare professionals while using medical data related to treatment. In addition, this course includes Interprofessional collaborative practice with students from other medical colleges such as medicine and health sciences. Objective Structured Clinical Examination (OSCE) will be used in this course as part of the student's assessment. The course involves using simulating programs such as Medscape and My Dispense.

Prerequisite: PPE 306P, IPP 509-AP, IPTIV 509, PHS 509P

Credits: 1

TOX 510: Toxicology and Drug Poisoning

Topics covered in this course are the type and nature of the toxic materials, factors affecting toxicity, effects of toxic substances on different body systems and their mechanism of action and how these effects are produced, the clinical symptoms of toxicity by different chemicals and drugs, the laboratory investigations required for the diagnosis of toxicity, the pharmacology of available general and specific.

Prerequisite: COL305, IPTIV509, PHS509P

Credits: 3

AIP 510P: AI in Pharmaceutical Sciences + Lab (2 Theory + 1 Practical)

The course will introduce the concept of informatics as it pertains to Pharmacy practice, including managing medication-related information, electronic health records, pharmacy information systems, and automated systems. The course introduces the concept of automation and the use of artificial intelligence in pharmacy and how this can affect the medication dispensing pathway and improve patient safety. Topics covered include Knowledge Management in Health Systems, computerized provider order entry, electronic prescribing in both inpatient and outpatient settings, electronic medication administration records, barcoded medication administration, and intelligent pumps, management, and optimization of pharmacy automation in a hospital setting, informatics for pediatrics and blockchain Technology in Pharmacy. In addition, this course introduces students to new approaches to drug discovery.

Finally, the course addresses the molecular modeling tools that are used in drug discovery and design with an emphasis on the application of computational software to simulate different bioprocesses, which include creating and modifying starting structures for computation, visualizing protein-ligand interactions, docking to determine Protein-Ligand poses (activity scoring), ligand-based virtual screening, combining modeling and experimental data for SAR development, quantitative structure-activity relationship (QSAR) analysis, de novo drug design, in silico evaluation of absorption, distribution, metabolism, excretion and toxicity (ADME/T) properties, and Drug Discovery Case Studies.

Prerequisite: CSC 101, PCH 407, PHA 305P, BPH 408, PHS 509P, DRG 305

Credits: 3

CPK 510P: Clinical Pharmacokinetics Skills (Practical)

This course introduces students to the practical aspects of clinical pharmacokinetics (therapeutic drug monitoring) using clinical simulation cases. Clinical pharmacokinetics calculations and drug dosing for special populations (renal and hepatic diseases, dialysis, and heart failure). Each session deals with cases related to certain drug/s, including antibiotics, cardiovascular agents, anticonvulsants, immunosuppressants, lithium, and theophylline.

Prerequisite: BPH408, PHS509P

Credits: 1

STE 510: Sterile Formulations

This course aims to provide the students with scientific and applied knowledge about compounding and manufacturing procedures of sterile dosage forms, including formulation design, the role of excipients, vehicles, stability, and quality control testing. It covers subjects of pharmaceutical microbiology related to sterile preparations. In addition, the adjustment of the isotonicity of sterile formulations, issues related to microbial contamination, and physical and chemical incompatibilities of sterile pharmaceutical products will be discussed. Finally, sterility testing, design, and operation of sterile product manufacturing facilities will be elaborated (Good Manufacturing Practices (GMPs)).

Prerequisite: IND509P

Credits: 2

COS 510: Cosmetics and Parapharmaceuticals

The course is designed to provide the students with knowledge of the science and technology of cosmetic and personal care products. Theoretical lectures focus on cosmetic ingredients, active substances, and the technology used to formulate and characterize cosmetic products. In addition, the semester includes the cosmetic GMP standards and requirements for optimal and sustainable quality control and management, as the quality and safety of these products used in our daily routine are essential for humans.

Prerequisite: OTC204P, IND509P

Credits: 2

Graduate Departments and Programs

Master of Business Administration

Withdrawal Policy

Students wishing to withdraw from the program must complete the withdrawal document stating their reason. Upon acceptance of the withdrawal, students must clear any outstanding payments to the university and return the student ID card.

Degree Requirements:

The passing grade for all courses is 73%. Students must pass all their courses and maintain a cumulative Grade Point Average (GPA) of 3.00 (overall average of 83) in order to earn the MBA degree. Students can view their current cumulative GPA on SONIS at any time.

AUIS MBA Curriculum

The AUIS MBA curriculum is taught by faculty members committed to excellence in their professions and with real-world business experience, providing knowledge delivered through a coordinated and integrated curriculum. Students learn to build productive organizations through stimulating classroom discussions, research projects and case studies covering a broad range of subjects. AUIS MBA students are contributing to the social and economic transformation of the region, and taking their rightful place as business leaders.

The AUIS MBA is a 17-course program meeting the accrediting standards of both American and KRG accrediting institutions. Students are required to take 14 core courses (including MBA Thesis) and can choose among nine electives or select a three-course specialization to build a comprehensive knowledge base in a specific area of interest.

MBA Core Courses

BUS 501: Business, Law and Society

This course helps students understand how business decisions affect and reflect society. Because the decisions of managers not only influence but are also influenced by public policy concerns and moral issues, students learn how to integrate economic, social, legal and regulatory, and moral considerations in decision making. Topics include contracts, agency agreements, partnerships, corporations, the role of law in society, business regulations and antitrust policy in the global environment, and ethical and social values in different cultures, and employment and labor relations

MGT 515: Human Resources Management

This course provides students with the knowledge of typical personnel management decisions faced by managers, including job analysis, selection development, disciplinary actions, appraisal and compensation issues, and global human resource issues.

BUS 502: Quantitative Analysis for Decision-making

The focus of this course is on the application of quantitative analysis techniques for strategic business decision making. Topics will include probability and descriptive statistics, survey construction, project management tools, forecasting methods and statistical process control. These quantitative decision support techniques assist managerial decision making in the world of business, including applications to finance, marketing, engineering, manufacturing, and quality, service and human resources problems.

MGT 502: Organizational Theory and Behavior

This course is a study of individuals and groups and their behaviors in organizations. The interaction of human, technological and structural factors in organizations will be examined. Important issues to be considered include theories of communication, motivation and decision making. Students also study organizations for key design variables and reward systems aimed at improved performance and organizational efficiency through employee motivational programs, participative management and cooperative decision making.

MGT 510: Leadership

This course focuses on developing students' knowledge and skill set for teamwork and leadership. The course provides a critical review of key concepts, models, theories, and practitioner approaches relating to leadership in organizations. Illustrations and application of leadership principles will be demonstrated through experiential exercises and skill development exercises. Translational work between theory and practice is applied as students examine current leadership theories in complex work environments.

MBA 502: Global Economic Environment

This course considers the domestic and global economic environment of business and its impact on management planning and decision making. This subject has two broad areas: Microeconomics focuses on how individual decision-makers behave and interact in markets. Macroeconomics sees the economy as composed of several broad groups of decision-makers, particularly households, firms, and governments, and studies how the interaction of these groups affects the aggregate performance of the economy. These two approaches are complementary, illuminating different aspects of economic behavior. By the end of the class, students will gain a basic understanding of the main principles of economics, as well as international trade and financial institutions and systems.

QSO 510: Project Management

Addressing the culture, principles, and basic techniques of project management, this course provides a comprehensive overview of project management. This course develops a foundation of concepts and solutions that supports the planning, scheduling, controlling, resource allocation, and performance measurement activities required for successful completion of a project. Tools and concepts such as project charter, scope statement, work breakdown structure, project estimating, and scheduling methodologies are studied.

FIN 501: Principles of Financial Analysis and Management

This course provides the student with context through which s/he will be able to gain an understanding of the subject of financial management that is covered in depth in later courses, and delivers the tools to perform various types of financial analysis utilized in

those courses. As an overview of corporate finance, the course introduces: the roles of the financial manager; the major financial markets and institutions, and their functions; and corporate financial statements and their uses. The course then introduces students to techniques of financial statement analysis to assess corporate performance. It concludes with an introduction to the concept of the time value of money and its application.

ACC 501: Managerial Accounting

The course focuses on the use of accounting information in reporting managerial performance and making business decisions. The course covers the preparation and use of managerial accounting information for use in planning, budgeting, control, break-even analysis and pricing, including the impact of taxes. Completion of the course will enhance the student's ability to understand managerial accounting reports and use this information in making decisions.

FIN 510: Financial Assets Management

The goal of the course is to learn how a corporate financial manager can evaluate prospective investments in financial instruments. As the key to asset valuation, the course begins with a study of interest; how rates are formulated based on an assessment of risk and macroeconomic policy. The course proceeds to study the valuation of the most basic forms of marketable debt and equity assets: bonds and stocks. In studying the valuation of stocks, the course introduces the risk vs. reward and dividend vs. growth trade-offs, and basic portfolio theory.

MKT 501: Marketing Management

This course is designed to provide students with a systematic approach for making marketing decisions and to give students practice in the analysis, design, implementation, and control of marketing strategies. Topics include how individual and organizational consumers make decisions, segmenting markets, positioning the firm's offering, effective marketing research, new product development, pricing strategies, communicating with consumers, estimating advertising's effectiveness, and managing relationships with sales force and distribution partners. The course also studies how firms must coordinate these different elements of the marketing mix to ensure that all marketing activities collectively forge a coherent strategy.

ITE 501: Information Systems for Management

This course focuses on the many ways information technology is incorporated within contemporary organizations and used to achieve a competitive advantage in the national and international marketplace. It focuses on the basic principles of Information Technology: hardware and software components, database technology, telecommunications and networking, e-commerce and e-business, Enterprise Resource Planning (ERP), Decision Support Systems (DSS), Artificial Intelligence (AI) and Expert Systems (ES), systems development and implementation, and the ethical and societal issues involved in IT.

MGT 580: Corporate Strategy and Organization

This penultimate course focuses on the perspective and skills of the general manager. Its purpose is to provide practice in diagnosing and identifying realistic solutions to complex strategic and organizational problems. The course builds on previous coursework by providing an opportunity to integrate various functional areas and by providing a total business perspective. Since the focus is on pragmatic, action-oriented general management

skills, the course will be taught primarily through the case method and will require both written analyses and case presentations.

MGT 690: MBA Thesis

In this capstone course, students will individually prepare a thesis which requires preparation of a case study and analysis report based on their company. The case study will focus on a description of events in the company surrounding a specific decision made by the firm. Writing the case will allow the student to explore the situation in depth, looking at such issues as linkages and causality. The analysis report will provide an analysis of the key issues, recommendations and relevant theoretical linkages.

Copies of completed cases and analysis notes would be maintained by AUIS for faculty consideration for adoption in subsequent offerings of their courses. Top ranked cases may be submitted to case conferences such as the North American Case Research Association's (NACRA) annual meeting or for publication in case journals such as the Case Research Journal or the Business Case Journal.

MBA Concentration Courses / Electives

Leadership Concentration:

The AUIS MBA degree in Leadership program was specifically designed for professionals who are currently leading or plan to lead their organizations as they build new markets, services, products, and innovations. The Leadership curriculum is designed for those who want to lead organizational change amid the challenges of an increasingly changing business landscape.

Participants in the AUIS MBA degree in Leadership program will evaluate themselves as leaders and discuss new models for leadership. Participants will look at research, case studies and real-world situations to learn proven strategies and tactics that can inspire individuals, teams and organizations to reach their full potential.

Courses:

MGT 620: Leading Change

The course will allow students to become familiar with theories and models which focus on effective change, innovation and organizational alignment. Students will cultivate the multiple capabilities required for ongoing, long-run strategic change. Illustrations and applications of organizational change principles will be demonstrated through skill development exercises, experiential exercises and cases analyses.

MGT 630: Leading Effective Teams

This course provides an experiential approach to application of the skills and attitudes necessary for building and leading effective teams. In today's global marketplace the organizations that thrive are the ones that anticipate change and create new adaptations to their business model. Creativity is the key to finding new opportunities and establishing a competitive advantage through collaborative teams and the use of organizational alliances and strategic partnerships. Topics include understanding the dimensions along which individuals differ, identifying the key principles that foster high individual performance,

learning when to structure work using teams, recognizing common pitfalls associated with working in teams.

MGT 640: Conflict Resolution

This course is designed to increase students' awareness of issues in negotiation and resolving conflicts, and to develop skills for negotiating more effectively with others. Most sessions include negotiations between pairs or groups of students. Students will come to better understand their own preferred negotiation styles, improve those styles, and strengthen those areas where they are weak. Special emphasis will be placed on conflict assessment, resolution, and conflict management techniques, negotiation theory, tactics, and practice as well as contingency theories of management and leadership.

Project Management Concentration:

The AUIS MBA in Project Management introduces students to an increasingly popular profession as more companies move to project team-based business models.

Particularly helpful for professionals in industries such as construction, IT development, manufacturing and consulting, the AUIS MBA in Project Management provides a foundation for successfully planning, monitoring, measuring and adapting a project from start to finish.

Students are provided with the content knowledge and organizational skills in project management methodologies that are critical in business environments. Students will develop an in-depth knowledge base of the Project Management Institute's (PMI)® ten **Project Management Body of Knowledge (PMBOK)®** areas and activities associated with each of the stages of the project management lifecycle. The AUIS MBA in Project Management degree is based on the standards of the **Project Management Professional (PMP)** certification, which helps align the skills learned with market needs.

Courses:

QSO 620: Project Cost and Scheduling

This course teaches the skills needed to effectively establish and manage a realistic schedule and detailed budget. Through hands-on exercises, students learn to develop a work breakdown schedule, grasp diagramming techniques, identify task relationships, determine the critical path, employ estimating techniques, and analyze resource utilization. Following schedule completion, a budget will be created that includes all direct and indirect costs associated with the project. The importance of base lining project schedules and budgets to make reporting and tracking progress easier is emphasized. Students will use value analysis and other reporting techniques to ensure project progress is clearly identified and communicated to stakeholders. Students will be introduced to Microsoft Project software to be able to manage a project.

QSO 630: Project Scope and Risk Management

Accurately defining project scope is a critical factor of a successful project. This course provides participants with tools and techniques to help them determine and deliver products, services, and results that meet requirements, expectations, and deadlines. At course completion, students will be able to gather requirements, create a project scope statement, create a WBS, determine sign-off processes, and control scope. Risk management, as an integrated component of successful project management, allows students to understand the uncertainty that is part of all project work and plan how to

effectively manage that uncertainty. Project Risk Management provides students with an organized approach for managing the uncertainties that can lead to undesirable project outcomes. The course provides a systematic method for identifying the risks that can result in cost overruns, delayed schedules, or failure to meet performance standards.

QSO 640: Project Management Capstone

In this course students must demonstrate the ability to integrate their accumulated learning experience and educational knowledge as well as to produce new information by applying their skills to the creation of a project management handbook; by evaluating and suggesting improvements in specific project environments; and through a case study or by analyzing some project management practices to determine the best. This course is suitable for all program directors, project managers and project leaders who are seeking PMP certification. This course can be also be attended by candidates seeking CAPM certification.

Finance Concentration:

Business leaders with the ability to apply accounting and financial concepts in decision making are in great demand. Managerial decisions, as well as timely analyses of investment alternatives, require input from financially educated professionals.

The AUIS Executive MBA in Finance is designed to provide students with a broad understanding of financial management, financial institutions, and investment strategies. The Finance specialization includes study and application in: portfolio theory, risk management, capital budgeting, capital structure, working capital management, and an assortment of other important financial management topics.

Courses:

FIN 620: Capital Budgeting

This course is intended to provide a market-oriented framework for analyzing the major types of investment decisions made by corporations. It introduces capital budgeting principles and problems, and project valuation. This course builds an understanding of value-based management – what tools can a manager use to estimate the effects of alternative strategies for creating enterprise value. The course applies the concepts of: risk and return, projected cash flows, the cost of capital, and the time value of money, to major investment decisions and project analysis and evaluation.

FIN 630: Capital Structure and Working Capital Management

This course delves into several important financial management topics: 1. Selecting sources of funding to maximize enterprise value (Capital Structure), 2. Choosing the optimal policy regarding cash flows to common shareholders (Dividend Policy), 3. Managing short-term (current) assets and liabilities (working capital) for optimal operating performance, and 4. Financial planning and forecasting techniques for financial managers.

FIN 640: Special Topics in Financial Management

This course covers more advanced applications of the concepts introduced in the preceding finance courses to: 1. Corporate risk management and the use of derivative financial instruments, 2. Financial management impacts of operating in a global environment, 3. The use of hybrid financial securities in funding a corporation, and 4. The special and very

significant capital budgeting problem of corporate acquisitions.

Marketing Concentration:

This concentration of the AUIS MBA program was created to meet the aspirations of students who desire to deepen their marketing knowledge for the benefit of their businesses or professional careers. After taking the MBA's core marketing class, students who choose this concentration will go on to enhance their knowledge of market research and analysis, marketing communications, and strategic marketing.

Students on this track will learn: how to use market research for launching new products or services and to improve the market share of existing products or services, how to communicate with target markets and prospective customers, and how to design an effective strategic marketing plan, all of which are critical to creating and maintaining a sustainable competitive enterprise.

Courses:

MKT 620: Market Research and Analysis

This course provides an in-depth study of market research in order to provide students with necessary tools and techniques for collecting and analyzing information used in determining whether there is a market for a proposed product or service, to specify target markets and customers, and to select the optimal marketing processes and methods. It includes the design and conduct of market research, which includes both quantitative and qualitative methods, as well as analysis of the results. Such research and analysis helps entrepreneurs to make wise and profitable decisions regarding products or services, ultimately maintaining competitiveness.

MKT 630: Marketing Communications

This course is complementary to Market Research and Analysis. It includes how to communicate with target markets and customers by deploying various messages and media. It covers various communications strategies and techniques such as: advertising, public relations, product placement, personal selling, promotion, sponsorship, and direct marketing. It also introduces how to create an effective marketing mix that will lead to the enterprise achieving its short and long-term goals.

MKT 640: Strategic Marketing

This capstone course of the marketing concentration focuses on combining all the marketing goals of an enterprise into a comprehensive strategic marketing plan that effectively distinguishes it from its competitors and improves its market share. It builds on the previous marketing courses, utilizing the knowledge gained to form a comprehensive plan aimed at optimizing the competitive position of the enterprise by overcoming the challenges and taking full advantage of the opportunities presented by its environment. It covers how to utilize the enterprise's inherent strengths via strategic marketing plans to achieve a sustainable competitive advantage. Various marketing simulation techniques may be utilized in the course.

Human Resource Management Concentration:

Professional management of human resources is critical for creating and maintaining high

performance organizations. This concentration will enable MBA students to learn more in-depth knowledge of human resources management. It focuses on best practices in: creating a positive employee relations climate, human resource development, and strategic human resource management.

This concentration will enhance the effectiveness of career human resource managers and provide prospective human resource managers with the knowledge and skills they need to enter the field. Students will learn techniques for: fostering good employee relations that are beneficial to both employees and employers, human resources development that will increase the capabilities of employees and the performance of the organization, and to integrate human resources management with the overall business strategy.

Courses:

HRM 620: Managing Employment Relations in the Global Context

A positive employment relations climate is essential for the success of an enterprise. Building on the first HRM course, this course dives deeper into the relations between employers and employees and how to foster a successful climate. Employment relations involves matters such as: employment contracts, pay and benefits, safe-working conditions, work-life balance, performance management, avoiding problems, diversity, and prevention of discrimination and harassment. Good employment relations begins with clearly written policies that aim to create a productive work environment with lasting employee satisfaction.

HRM 630: Human Resource Development

Successful enterprises not only aim at having positive employment relations, but also at helping employees develop their knowledge, skills and abilities. Developing employee capabilities benefits the enterprise by increasing human resources productivity and performance. This course introduces best practices in human resources development using various methods such as: training, coaching, mentoring, and supporting continuing education by providing tuition assistance or sponsorship. Human resource development is essential for creating and maintaining high performance organizations.

HRM 640: Strategic Human Resource Management

Strategic thinking and planning in human resources management is essential for long-term success. Strategic human resources management involves attracting, developing, rewarding, and retaining quality employees for the mutual benefit of employee and employer. This course teaches how to develop a strategic approach to human resource management in consideration of the mission, vision, and strategic goals of the enterprise. It covers various theories and models for integrating the functions of human resources management into the overall business strategy to achieve long-term business goals.