

The NDU Gazette

A publication covering decisions taken at the BOD and UC meetings

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Issue Number Three, July 2011

SOL 313 – A New GER Course

Approved by the BOD on June 22, 2011

Background

SOL 313 has been offered in the FH since 2001 on the North campus and 2004 on the Main campus. This course is taught as an overview of family violence and child abuse using the fields of psychology and sociology as its basis. The course has no prerequisite. Often taken as an elective course, it would be appropriate as an additional social science option under Group III of the GERS.

Present Course Description

SOL 313 Family Violence and Child Abuse (3.0); 3 cr.

Integrates current knowledge about family violence from the areas of psychology, sociology, social work, and law enforcement.

Proposal

The FH proposes to add SOL 313 as an addition to the social science list of GER courses as of October 1, 2011.

FH – DEFE - Modifications in BA Translation & Interpretation

Approved by UCC on June 8, 2011
Approved by the BOD on June 22, 2011

Rationale for modifications:

In Lebanon, NDU has an advantage over other universities as it is the only university which offers a BA in Translation and Interpretation with English as the B Language rather than French.

Graduates with a BA in Translation/ Interpretation with a heavy concentration in interpreting skills are in great demand on the market locally and regionally. The BA Translation/Interpretation must be kept up to date; to do so focus should be put on offering more technical courses, among which are legal, technical, scientific and medical as well as ensuring that translation students are also offered the opportunity to acquire the basis of the areas of study they are called upon to translate.

To accommodate these realities, an adhoc committee, composed of translation and interpretation instructors, the advisor of the BA and MA Translation and Interpretation students, and the Dean of the faculty was formed. Below are the modifications that have been suggested by the committee:

Overview

Proposal #1: The addition of 1 credit for the English & French Legal Translation courses.

TRA 311 Translation of English Legal Documents formerly 3 credits will become a 4 credit course.

TRA 312 Translation of French Legal Documents formerly 3 credits will become a 4 credit course.

Rationale for increasing to 4 credits is due to the need to include units concerning the legal systems in the course syllabi.

Proposal #2: The merging of the two movie translation courses into one new course of two credits.

TRA 411 and TRA 412 will no longer be taught as separate courses.

Rationale for one course of three credits is that students need to learn the skill of doing subtitling and then to practice using the two languages. This can be done in one course.

TRA 413 (2.0); 2 cr. Focuses on the translation of the literature and language (English, French and Arabic) of motion pictures and television. Students will learn the software required for subtitling. Field visits to television stations will be organized. *Prerequisite:* TRA 301.

Proposal #3: The addition of 1 credit for TRA 431 and TRA 432

TRA 431 and TRA 432 will become 4 credit courses:

Rationale for increasing to 4 credits is that students will no longer be obliged to take 4 cultural courses as such. The 6 credits will be distributed over other courses.

Proposal #4: The addition of one medical translation course of four credits in the following three combinations (English- French and Arabic)

TRA 440 (4.0); 4 credits. Translation of Scientific and Medical Texts. Trains students to translate English French and Arabic texts. The course will cover themes that are the most frequently dealt with in contemporary medical and scientific literature. Students will develop a resource base on the themes studied.

Rationale for the addition of this course is the necessity for students to take one course in scientific and medical texts since much translation work involves these two fields.

Proposal #5: The addition of 4 interpreting courses:

***INT 437** Interpreting: Arabic-English II (3.0); 3 cr. Aims to help students develop competence in simultaneous interpretation needed at international conferences. Correct language is emphasized. General

themes are covered. Accuracy is emphasized. Students spend time both in class and in the booth. *Prerequisite:* INT 431.

***INT 438** Interpreting: Arabic-English III (3.0); 3 cr. Aims to help students develop competence in simultaneous interpretation needed at international conferences. Students practice on specialized tests in economics, political science, humanities. Students spend time both in class and in the booth. *Prerequisite:* INT 437.

***INT 439** Interpreting: English-Arabic III (3.0); 3 cr. Aims to help students develop competence in simultaneous interpretation needed at international conferences. Technical texts are covered. Students spend time both in class and in the booth. *Prerequisite:* INT 434.

***INT 440** Interpreting: Arabic-English IV (3.0); 3 cr. Aims to help students develop competence in simultaneous interpretation needed at international conferences. Technical texts are covered. Students spend time both in class and in the booth. *Prerequisite:* INT 438.

Rationale for the addition of these particular courses is to augment the English Arabic interpreting competencies of the students. One of the main reasons the program is being modified is to ensure students have enough exposure to simultaneous interpretation.

The textbooks assigned for the abovementioned courses are:

I. INT 437: 1. Andrew Gillies, *Note-Taking for Consecutive Interpreting - A Short Course*. Manchester, St. Jerome Publishing, 2005, 239 pages.
A Systematic Approach to Teaching Interpretation by Danica Seleskovitch, Marianne Lederer

II. INT 438 : 1. Andrew Gillies, *Note-Taking for Consecutive Interpreting - A Short Course*. Manchester, St. Jerome Publishing, 2005, 239 pages.
Mikkelson, Holly, *Introduction to Court Interpreting*, Manchester, St. Jerome Publishing

III. INT 439: 1. . Andrew Gillies, *Note-Taking for Consecutive Interpreting - A Short Course*. Manchester, St. Jerome Publishing, 2005, 239 pages.
Interpreting for International Conferences: Problems of Language and Communication (2nd Edition) by Danica Seleskovitch

IV. INT 440 A Systematic Approach to Teaching Interpretation by Danica Seleskovitch, Marianne Lederer

Suggested Program BA Translation and Interpretation 108 credits

General Education Requirements: 33 credits, as per NDU catalog

Core Requirements 55cr.

TRA 201, TRA 211, TRA 212, TRA 301, TRA 302, TRA 311, TRA 312, TRA 331, TRA 332, TRA 401, TRA 402, TRA 413, TRA 421, TRA 422, INT 431, INT 432, ENL 314, ARB 302

Translation Emphasis Requirements 13cr

TRA 431, TRA 432, TRA 440, TRA 480,

Interpretation Emphasis Requirements 16 cr.

INT 434, INT 437, INT 438, INT 439, INT 440, INT 480

Electives

7 cr for Translation Emphasis

4 cr. For Interpretation Emphasis students.

Course Descriptions

TRA 201 Translation Theory and Methodology (3.0); 3 cr. Provides students with a firm foundation of both translation and methodology. Students will study the major contributors to translation theory and will practice translation using the various methodologies.

TRA 211 Translation of English Contemporary Texts (3.0); 3 cr. Familiarizes students with different genres and contemporary literature English/Arabic. Students will be required to begin to develop a personal lexicon. *Corequisite:* TRA 201, *Prerequisite:* ENL 213.

TRA 212 Translation of French Contemporary Texts (3.0); 3 cr. Familiarizes students with different genres and features of contemporary literature. Students will be required to begin develop a personal lexicon. French/Arabic. *Corequisite:* TRA 201.

TRA 301 Translation of English Documents (3.2); 4 cr. Develops competence in translating official, legal, and judicial English/Arabic texts. Emphasis is on United Nations documents. Basic research and translation of data will be covered. Students will be exposed to UN agencies; guest speakers and field trips will be required. *Corequisite:* TRA 212.

TRA 302 Translation of French Documents (3.2); 4 cr. Trains students in translating official, legal, and judicial French/Arabic texts. United Nations documents area emphasized. Students will be exposed to UN agencies; guest speakers and field trips will be required. *Prerequisite:* TRA 212.

TRA 311 Translation of English Legal Documents (4.0); 4 cr. Trains students in interpreting and translating English and Arabic texts which cover diverse areas of law. English/American legal system will be studied. Students will carry out basic comparative research on both systems. *Prerequisite:* TRA 301.

TRA 312 Translation of French Legal Documents (4.0); 4 cr. Trains students in interpreting and translating French and Arabic texts which cover diverse areas of law. Students will carry out basic comparative research on French and Lebanese systems of law. *Prerequisite:* TRA 302.

TRA 331 Mechanical Translation and Interpretation (3.0); 3 cr. Use of modern equipment in the field of translation and interpretation. *Prerequisites:* TRA 301 and TRA 302.

TRA 332 Mechanical Translation and Interpretation II (3.0); 3 cr. Further practice in the use of modern equipment in the field of translation and interpretation. Students will practice under instructor's supervision. *Prerequisite:* TRA 331.

TRA 401 Translation of English Business Texts (3.0); 3 cr. Aims to train students in interpreting and translating English and Arabic texts which cover diverse areas of business, economics, accounting, banking. *Prerequisite:* TRA 301.

TRA 402 Translation of French Business Texts (3.0); 3 cr. Trains students in interpreting and translating French and Arabic texts which cover diverse areas of business, economics, accounting, banking. *Prerequisite:* TRA 302.

TRA 413 Translation of English and French Films (2.0); 2cr. Focuses on the translation of the literature and language (English, French and Arabic) of motion pictures and television. Students will learn the software required for subtitling. Field visits to television stations will be organized. *Prerequisite:* TRA 301.

TRA 421 Translation of English Literature (2.0); 2 cr. Offers intensive practice in translating English literary and artistic texts into Arabic. *Prerequisite:* TRA 301.

TRA 422 Translation of French Literature (2.0); 2 cr. Offers intensive practice in translating French literary and artistic texts into Arabic. *Prerequisite:* TRA 302.

TRA 431 Translation of Cultural Texts I (4.0); 4 cr. Focuses on intensive practice in translating Arabic cultural texts (historical, religious, philosophical, political, and contemporary) into English and vice versa. *Corequisite:* TRA 421.

TRA 432 Translation of Cultural Texts III (4.0); 4 cr. Focuses on intensive practice in translating Arabic cultural texts (historical, religious, philosophical, political and contemporary) into French and vice versa. *Corequisite:* TRA 422.

TRA 440 Translation of Scientific and Medical Texts (4.0); 4 cr. . Trains students translating English French and Arabic texts which cover diverse areas of Science and Medicine. *Prerequisites:* TRA 401- TRA 402.

TRA 480 Translation Internship (1.0); 1 cr. Practical training in a professional setting supervised by the instructor. *Corequisite:* TRA 422.

ENL 314 English Vocabulary (3.0); 3 cr. A detailed study of meaning relationships with a study of borrowings from other languages. *Corequisite:* ENL 213

INT 431 Interpreting: English-Arabic I (3.0); 3 cr. Aims to help students develop competence in consecutive interpretation needed at international conferences. Students learn the principles of consecutive interpretation and practice the basic skills. General themes are covered. Accuracy is emphasized. *Prerequisite:* TRA 421.

INT 432 Interpreting: French-Arabic I (3.0); 3 cr. Aims to help students develop competence in consecutive interpretation needed at international conferences. Students practice the basic skills. General themes are covered. Accuracy is emphasized. *Prerequisite:* TRA 422.

INT 433 Interpreting: French-English I (3.0); 3 cr. Aims to help students develop competence in simultaneous interpretation needed at international conferences. Students practice the basic skills needed for competence. Correct language is emphasized. General themes are covered. *Prerequisites:* INT 431 or INT 432.

INT 434 Interpreting: English-Arabic II (3.0); 3 cr. Aims to help students develop competence in simultaneous interpretation needed at international conferences. Students practice on specialized texts in economic, political science, and humanities. *Prerequisite:* INT 431.

INT 435 Interpreting: French-Arabic II (3.0); 3 cr. Aims to help students develop competence in simultaneous interpretation needed at international congresses. Students practice on technical texts. *Prerequisite:* INT 432.

INT 436 Interpreting: French-English II (3.0); 3 cr. Aims to help students develop competence in simultaneous interpretation needed at international conferences. Students practice on technical texts. *Prerequisite:* INT 433.

INT 437 Interpreting: Arabic-English I (3.0); 3 cr. Aims to help students develop competence in simultaneous interpretation needed at international conferences. Correct language is emphasized. General themes are covered. Accuracy is emphasized. Students spend time both in class and in the booth. *Prerequisite:* INT 431.

INT 438 Interpreting: Arabic-English II (3.0); 3 cr. Aims to help students develop competence in simultaneous interpretation needed at international conferences. Students practice on specialized tests in economics, political science, humanities. Students spend time both in class and in the booth. *Prerequisite:* INT 437.

INT 439 Interpreting: English-Arabic III (3.0); 3 cr. Aims to help students develop competence in simultaneous interpretation needed at international conferences. Technical texts are covered. Students spend time both in class and in the booth. *Prerequisite:* INT 434.

INT 440 Interpreting: Arabic-English III (3.0); 3 cr. Aims to help students develop competence in simultaneous interpretation needed at international conferences. Technical texts are covered. Students spend time both in class and in the booth. *Prerequisite:* INT 438.

INT 480 Interpreter Internship;(1.0); 1 cr. Practical training in a professional setting at conferences using simultaneous interpretation supervised by the instructor. *Prerequisite:* INT 433.

ARB 302 Practice in Uses of Arabic (3.0); 3 cr. This is a course in the use of the Arabic language. It provides insight into the connections and relations between various forms of specialized knowledge and the full range of expressions which the Arabic language permits. Course includes advertizing, journalism, radio tv, language varieties.

Bachelor of Art in Translation & Interpretation **(Suggested Program 108 credits)**

Fall Semester I: (15 credits) Common

TRA 201 Translation Theory and Methodology (3.0); 3 cr.

TRA 211 Translation of English Contemporary Texts (3.0); 3 cr

TRA 212 Translation of French Contemporary Texts (3.0); 3 cr.

ENL 314 English Vocabulary (3.0); 3 cr.

GER 3 cr

Spring Semester I: (15 credits) Common

TRA 301 Translation of English Documents (4.0); 4 cr.

TRA 302 Translation of French Documents (4.0); 4 cr.

ARB 302 Practice in Uses of Arabic (3.0); 3 cr.

GER 3 cr.

Elective (1 cr.)

Summer semester I: (6 credits) Common

GER (6 cr.)

Fall semester II: 14 credits Common

TRA 311 Translation of English Legal Documents (4.0); 4 cr.
TRA 312 Translation of French Legal Documents (4.0); 4 cr.
GER (6 cr.)

Spring semester II: 15 credits Common

TRA 331 Mechanical Translation and Interpretation (3.0); 3 cr.
TRA 401 Translation of English Business Texts (3.0); 3 cr.
TRA 402 Translation of French Business Texts (3.0); 3 cr.
GER (3 cr.)
Free Elective (3cr.)

Summer II: 3 credits Common

TRA 332 Mechanical Translation and Interpretation II (3 credits)

Fall III: 15 credits Common

TRA 413 Translation of English and French Films (2.0); 2cr.
TRA 421 Translation of English Literature (2.0); 2 cr.
TRA 422 Translation of French Literature (2.0); 2 cr.
INT 431 Interpreting: English-Arabic I (3.0); 3 cr.
GER (6 cr.)

Spring III

Translation Emphasis : (14 credits)

TRA 431 Translation of Cultural Texts I (4.0); 4 cr.
TRA 432 Translation of Cultural Texts III (4.0); 4 cr.
INT 432 Interpreting: French-Arabic I (3.0); 3 cr.
GER (3 cr.)

Spring III

Interpretation Emphasis: (15 credits)

INT 432 Interpreting: French-Arabic I (3.0); 3 cr.
INT 434 Interpreting: English-Arabic II (3.0); 3 cr.
INT 437 Interpreting: Arabic-English I (3.0); 3 cr.
GER (6 cr.)

Fall IV

Translation Emphasis: (11 credits)

TRA 440 Translation of Scientific and Medical Texts (4.0); 4 cr.
GER (3 credits)
TRA 480 Translation Internship (1.0); 1 cr.
Free elective

Interpretation Emphasis: (10 credits)

INT 438 Interpreting: Arabic-English II (3.0); 3 cr.
INT 439 Interpreting: English-Arabic III (3.0); 3 cr.
INT 440 Interpreting: Arabic-English III (3.0); 3 cr.
INT 480 Interpreter Internship; 1 cr.

FH – DE TE - Modifications in MA Translation

Approved by UCC on June 8, 2011
Approved by the BOD on June 22, 2011

Overview

The changes proposed in the MA Translation program are founded in the belief that a master's student in translation should write a thesis.

Proposal #1: Modification of Degree requirements

Proposal #2: Addition of a 6 credit thesis to the program

In order to provide that opportunity in accordance with best practice, the MA thesis may fall into one of three sub-categories: Terminology, Lexicology-lexicography, Translation studies (Traductology).

Proposal #3: Addition of French to the Tra 622 course Rationale for adding French is that students learn the skills involved in Terminology and then would practice using the three languages. French is the C language but students would gain practice in developing their French terminology.

TRA 622 Terminology ARB/ENL /FRC(3.0); 3 cr. History of Terminology. The terminologist's task. Terminology's research methods. Use of documentation. Practical work in term research and subject field research. Intensive workshop approach treating both English, French and Arabic texts.

Proposal #1 Modified Degree Requirements (36 credits)

Major Requirements 24 credits

TRA 610, TRA 620 or TRA 621, TRA 622, TRA 630, TRA 690, Enl 601

plus

8 credits from the following pool: TRA 631, TRA 632, TRA 633, TRA 634, TRA 635, TRA 636, TRA 637, TRA 638, TRA 639

Electives 6 cr.

Choose 2 from the following: ENL 611, LIR 605, LIR 662, IAF 641, IAF 621, IAF 605, INT 610, or any two 600 level INT Courses.

Thesis : 6 credits

TRA 699 Thesis

Admission Requirements

M.A. candidates must pass a written language proficiency test in French and Arabic. A grade of 70 or above is required in both exams. In addition, an interview in English, French, and Arabic is also required. If only a small deficiency in one of the three languages is detected,

remedial courses will be required during the first semester. A grade of **B** must be obtained in the remedial courses.

Graduation Requirements

To satisfy the requirements for a Master of Arts in Translation/Interpretation, the student must complete 36 credits with an over-all average of 3.0/4.0. A thesis is required.

Former Degree Requirements (for information) Degree Requirements (36 credits)

Translation Emphasis

Major Requirements

30 cr.

TRA 610, TRA 620, TRA 621, TRA 622, TRA 630, TRA 631, TRA 632, TRA 633 or TRA 634, TRA 635 or TRA 636, TRA 637, TRA 638 or TRA 639, TRA 690

Electives

6 cr.

Choose 2 from the following: ENL 611, LIR 601, LIR 662, IAF 641, IAF 621, IAF 605, INT 610, or any two 600 level INT Courses.

Master of Arts in Translation Suggested Program (36 credits)

Graduate Courses: Translation Course Descriptions

TRA 610 Advanced English Writing (3.0); 3 cr. Fine points of English writing including: clarity, accuracy style, proofreading and revision. It also a very useful resource to develop the practical writing skills to a very advanced level. This course builds upon the skills acquired in "English Writing Skills" to further develop students' critical thinking and academic writing competencies. The course devotes a good part of the semester to the skills of writing summaries, critiques, and syntheses; paraphrasing and using quotations. It then leads students through the process of writing a research paper.

TRA 620 Linguistics for Translation Students (3.0); 3 cr. This course familiarizes students with the problems of linguistic specificity and translation. The nature and structure of language, its role in society, the theory and methods of linguistics: phonology, syntax, semantics and lexicon as applied in translation.

TRA 621 Comparative Stylistics for Translation (3.0); 3 cr. Presentation and analysis of texts related to interlinguistic transfer. Intensive workshop's approach treating both English/Arabic and French/Arabic texts. This translation-oriented contrastive grammatical and stylistic analysis of Arabic, French, English is extensively exemplified by expressions, phrases and whole texts combining descriptions with methodological guidelines for translation.

TRA 622 Terminology ARB/ENL /FRC(3.0); 3 cr. History of Terminology. The terminologist's task. Terminology's research methods. Use of documentation. Practical work in term research and subject field research. Intensive workshop approach treating both English, French and Arabic texts.

TRA 630 Computer Assisted Translation(3.0); 3 cr. Computer aids for translation, desktop publishing, terminology management. Machine and machine-assisted translation. This course

introduces students to Computer Assisted Translation (CAT (highlighting its success and failure in comparison to human translation. In a first part, the course trains the students in the practical use of the computer assisted translation focusing on the problems, difficulties, advantages and shortcomings of this type of activity. In a second part, students are introduced to the latest translation software* and how to use them. The advantages as well as the limitations of such programmes are discussed with a special reference to the translation of scientific and literary texts.

TRA 631 Advanced Translation of Literature ARB/ENL (3.0); 3 cr. Study and analysis of translated works. Translation into Arabic of a work which was not translated before. We focus on how we read and understand literature; how reading and writing literature influence identity, meaning and value; and how to develop strategies for reading, discussing, and writing about literary works in order to translate literary work properly.

TRA 632 Advanced Translation of Literature ARB/FRC (3.0); 3 cr. Study and analysis of translated works. Translation into Arabic of a work which was not translated before. We focus on how we read and understand literature; how reading and writing literature influence identity, meaning and value; and how to develop strategies for reading, discussing, and writing about literary works in order to translate literary work properly.

TRA 633 Advanced Legal Translation ARB/ENL (2.0); 2 cr. Translation of highly specialized legal texts. Students gain an introduction to the theory and practice of Legal Translation, including the legal knowledge needed to make well-founded choices while translating. Furthermore, they are aware of the challenges involved in this particular area of specialist translation. Finally, students improve their translation skills and are able to use appropriate terminology to discuss problems they encounter.

TRA 634 Advanced Legal Translation ARB/FRC (2.0); 2 cr. Translation of highly specialized legal texts. Students gain an introduction to the theory and practice of Legal Translation, including the legal knowledge needed to make well-founded choices while translating. Furthermore, they are aware of the challenges involved in this particular area of specialist translation. Finally, students improve their translation skills and are able to use appropriate terminology to discuss problems they encounter.

TRA 635 Advanced Business & Economic Texts ARB/ENL (2.0); 2 cr. Translation of highly specialized business, economic, and administrative texts. Familiarize the student with current business practices, i.e., determining fees and negotiating contracts.

TRA 636 Advanced Business & Economic Texts ARB/FRC (2.0); 2 cr. Translation of highly specialized business, economic, and administrative texts. Familiarize the student with current business practices, i.e., determining fees and negotiating contracts.

TRA 637 Advanced Medical Translation ARB/FRC/ENL (2.0); 2 cr. Medical terminology and phraseology which would allow the translator to correctly translate medical texts. Relevant basic scientific concepts. Practice in translation in such areas as medical, pharmaceutical, communications, and science textbooks. Development of specialized glossaries in English, French & Arabic.

TRA 638 Advanced Translation of Media ARB/ENL (2.0); 2 cr. Translation of various genres of media. This course introduces students to the linguistic varieties used in various media. It aims to develop a reasonable command of the language of media. It also offers students the opportunity to develop an understanding of cultural differences between English and Arabic and how to tackle them when translating. Translation strategies and media skills are given a reasonable emphasis.

TRA 639 Advanced Translation of Media ARB/FRC (2.0); 2 cr. Translation of various genres of media. Translation of various genres of media. This course introduces students to the linguistic varieties used in various media. It aims to develop a reasonable command of the

language of media. It also offers students the opportunity to develop an understanding of cultural differences between English and Arabic and how to tackle them when translating. Translation strategies and media skills are given a reasonable emphasis.

TRA 690 Internship (1.0); 1 cr. A supervised practicum designed to allow students to put their knowledge of translation and terminology to work in an actual translation service, mainly, in a business firm, social service agency, or government office. Weekly discussions of specific texts and problems arising from the field work experience. Supplementary written and laboratory assignments.

TRA 699 Thesis (6.0); 6 cr. Research for the master's thesis must show the student's proficiency in approved topics in translation science.

ENL 601 Bibliography and Methodology of Research (3.0);3cr. Studies the materials, tools, and methods of research.

Master of Arts in Translation Suggested Program (36 credits)

Fall Semester I (9 credits)

TRA	610	Advanced English Writing	3 cr.
ENL	601	Bibliography and Methodology of Research	3 cr.
TRA	620	Linguistics for Translation Students	3 cr.
Or			
TRA	621	Comparative Stylistics for Translation	3 cr.

Spring Semester I (9 credits)

TRA	622	Terminology ARB/ENL /FRC	3 cr.
TRA	630	Computer Assisted Translation	3 cr.
—	—	Pool	3 cr.

Summer Semester (3 cr.)

TRA	690	Internship	1 cr.
—	—	Pool	2 cr.

Fall Semester II (9 credits)

—	—	Pool	3 cr.
—	—	Elective	6 cr.

Spring Semester II (6 credits)

TRA	699	Thesis	6 cr.
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FNAS Policy for Graduate Assistantships

Approved by the UC on July 6, 2011
Approved by the BOD on June 22, 2011

Introduction

Graduate assistantships or fellowships are the norm in science¹ graduate programs at universities in the US that offer graduate programs in any field within the sciences. Graduate students, viewed as a valuable resource, are invested in by offering them assistantships in the form of tuition waivers and stipends (pocket money). Indeed, many of the faculty at the FNAS are the product of such system and had fully supported themselves during graduate studies through graduate assistantships.

Graduate fellowships are not free money offered to the students. Graduate Fellows (GFs) will mainly teach remedial and introductory courses, grade homework, proctor exams, hold problem solving sessions, and function as lab instructors. They will be engaged in research projects under the supervision of a full-time faculty member, and as a result they will enhance the research activity of the faculty. The kind and amount of services they provide compensates for the amount of money the university grants them. In that sense, GFs are low-cost apprentices who learn the “trade” by studying and taking their first steps under the guidance of faculty members.

Why offer GFs?

The benefits reaped from the graduate fellowship program will far outweigh the money invested in the program. This is how.

- 1) GFs reduce the number of part-timers in the courses and increase the efficiency of teaching.
- 2) GFs provide our undergraduates with more opportunities for problem-solving, both in class and at home. This is significant since problem-solving is essential to learning in sciences. GFs hold problem-solving sessions and grade homework that are too time-consuming tasks for professors.
- 3) GFs help promote our graduate programs. Currently, NDU is losing its best science students to AUB, LAU, and universities abroad who offer generous graduate assistantships. NDU’s loss is actually two-fold since one must not forget that top undergraduate students at NDU are literally paid for their education through scholarships.
- 4) GFs will be an integral component of the academic body at NDU. They will be junior colleagues-in-training. They will contribute to strengthening the research capacity since their very presence at NDU, just like the other faculty members, makes them collaborate more closely with their theses advisors, thereby enriching the research atmosphere at NDU.

¹ Biology, Chemistry, Environmental Science, Physics, Computer Science, Mathematics, Statistics, and Actuarial Science and Insurance.

Duties of GFs:

The work load of GFs will be **15** hours/week of which a minimum of six in-class duties (any combination of lab instruction, teaching, and problem-solving sessions). Their duties include, but are not limited to, the following:

- 1) Teach remedial and undergraduate introductory courses.
- 2) Grade under the supervision of the faculty member teaching the course.
- 3) Hold one problem-solving session per week for a given course².
- 4) Act as a lab instructor.
- 5) Hold office hours (one hour per course).
- 6) Enroll in a minimum of nine credits per semester.
- 7) Work on research projects done by full-time faculty members.
- 8) Attend a teaching workshop.

Compensation

Depending on the needs of the Department and on the availability of funds, a GF would receive:

- 1) Full tuition waiver.
- 2) A stipend of 300,000LL/month for 9 months.

The fellowship will remain in effect as long as the student remains in good academic standing.

Eligibility Requirements

- 1) A minimum GPA of 3.0 and 3.3 in the undergraduate major for GFs, respectively (American system). Other grading systems will be assessed by the faculty graduate committee.
- 2) Three recommendation letters.
- 3) Interview by a graduate assistantship committee.
- 4) Graduate students transferring from other universities to NDU may transfer a maximum of 6 credits.
- 5) GF should be on the thesis option (it is expected that a thesis will lead to either a refereed publication or a paper in the proceedings in an international conference).

Selection Process

Establish a department graduate fellowship committee within each department to oversee the selection process. This committee shall consist of the Dean as a chair, the chairperson of the department, and one faculty member from the department.

- 1) Review of applications (transcripts, recommendation letters, etc.).
- 2) Conduction of interviews.
- 3) All candidates shall give a one-hour presentation.

GFs Job Assignment Once GFs are selected by the graduate fellowship committee, the chairperson of the respective department will assign each GF their teaching duties.

² Problem-solving sessions are only offered at the sophomore level in multi-section courses where at least three sections have been merged into one section for the purpose of lecturing only, and then re-divided into smaller groups for problem-solving.

FNAS - Department of Computer Science

B.S. in Business Computing

Approved by the UC on July 6, 2011
Approved by the BOD on June 8, 2011

The degree of Bachelor of Science in Business Computing

Business Computing majors study information systems and their use in business and other organizations. They learn about computer databases, networks, computer security, and more. A business computing graduate will play a key role in determining the requirements for an organization's information systems. After completing this program our students will have a sound understanding of organizational principles and the information that a computing system can provide to aid the enterprise.

Admission Requirements

The admission requirement to the degree of BS in Business Computing (BC): Lebanese Baccalaureate Part II (any strand) or its equivalent as certified by the Lebanese Ministry of Education and Higher Education.

The selection depends on the following assessment model:

- 1. TOEFL, or Writing Section of SAT I, or EET (for NDU English proficiency requirements).
- 2. SAT I or NDU Entrance Test.
- 3. Secondary School Grades. School grades (second and third secondary years) are weighted 55% and SAT I (or NDU Entrance Test) 45%.

Graduation Requirements

To receive the degree of BS in Business Computing, a student must fulfill all requirements of the degree program, complete all required courses, accumulate a total of 91 credits with an overall grade point average (GPA) of at least 2.0/4.0 and a minimum GPA of 2.0/4.0 in both the core and major requirements, and clear all accounts with the university. Candidates for degrees are reminded that grades of "I" assigned during the last semester to courses required for graduation will result in delaying their graduation.

Residency Requirement

- Minimum number of semesters spent at NDU is six (two summer sessions are counted as one full semester).
- Maximum allowed number of semesters to be spent at NDU is twelve.

Degree Requirements (91 credits)

General Education Requirements	27 cr.
A - Communication Skills in English and Arabic	9 cr.
- Two courses from the subcategory <i>English (6 cr.)</i> ENL 213 And ENL 223 Or ENL 230	
- One course from the subcategory <i>Arabic (3 cr.)</i> ARB 211, ARB 212, ARB 224, ARB 231, ARB 317	
B - Philosophy and Religion	6 cr.
- One course from the subcategory <i>Religion (3 cr.)</i> REG 212, REG 213, REG 313, REG 314	
- One course from the subcategory <i>Philosophy (3 cr.)</i> ENS 205, PHL 211, PHL 311, POS 345	
C - Cultural Studies and Social Sciences	3 cr.
- One course from the category <i>Cultural Studies and Social Sciences (3 cr.)</i> HUT 305, HUT 306, MUS 210, FAP 215, COA 359, COA 315, NTR 215, ARP 215, PSL 201, SOL 201, SOL 301, BAD 201, ECN 200, ECN 211, ECN 212	
D - Citizenship	3 cr.
- One course from the category <i>Citizenship (3 cr.)</i> HIT 211, POS 201, POS 210, POS 240, IAF 301, POS 319, POS 337	
E - Science and Technology	6 cr.
- One course from the subcategory <i>Mathematics/Statistics/Computer Science (3 cr.)</i> CSC 201, CSC 202, MIS 201, MAT 201, MAT 202, MAT 204, MAT 211, STA 202, STA 210	
- One course from the subcategory <i>Natural Sciences (3 cr.)</i> AST 201, BIO 202, BIO 203, CHM 211, ENS 201, ENS 202, ENS 206, HEA 201, NTR 201, PHS 207, GIS 211	
Core Requirements	28 cr.
CSC 216, CSC 217, CSC 226, CSC 480, MAT 205, MAT 214, STA 206, STA 207, ACO 201, ECN 211	
Major Requirements	30 cr.
CSC 305, CSC 306, CSC 417, CSC 435, CSC 446, CSC 490, ACO 202, ECN 212	24 cr.
Choose two courses from the following list: CSC 218, CSC 231, CSC 219, CSC 301, CSC 316, CSC 318, CSC 323, CSC 385, CSC 387, CSC 423, CSC 463, CSC 485	6 cr.
Free Electives	6 cr.

**Bachelor of Science in Business Computing
Suggested Program (91 Credits)**

Fall Semester I (15 Credits)

CSC	201	Computers and Their Use (GER)	3 cr.
CSC	216	Computer Programming I	3 cr.
ENL	213	Sophomore English Rhetoric (GER)	3 cr.
ACO	201	Principles of Accounting I	3 cr.
STA	206	Applied Statistics for Business & Economics I	3 cr.

Spring Semester I (15 Credits)

CSC	217	Computer Programming II	3 cr.
CSC	226	Database Programming for Business	3 cr.
ACO	202	Principles of Accounting II	3 cr.
ENL	230	English in the Workplace (GER)	3 cr.
STA	207	Applied Statistics for Business & Economics II	3 cr.

Fall Semester II (15 Credits)

CSC	305	System Analysis and Design	3 cr.
CSC	306	Web Design	3 cr.
MAT	214	Applied Linear Algebra	3 cr.
REG	—	GER	3 cr.
—	—	GER	3 cr.

Spring Semester II (15 Credits)

CSC	—	Major Elective	3 cr.
CSC	446	Applied Database Systems	3 cr.
MAT	205	Math for for Business & Economics II	3 cr.
ECN	211	Principles of Microeconomics	3 cr.
ARB	—	GER	3 cr.

Summer Session II (1 Credit)

CSC	480	Internship	1 cr.
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Fall Semester III (15 Credits)

CSC	417	Advanced Programming Technologies	3 cr.
CSC	435	Operating Systems & Networks	3 cr.
ECN	212	Principles of Macroeconomics	3 cr.
—	—	Free Elective	3 cr.
—	—	GER	3 cr.

Spring Semester III (15 Credits)

CSC	490	Senior Study	3 cr.
CSC	—	Major Elective	3 cr.
—	—	Free Elective	3 cr.
—	—	GER	3 cr.
—	—	GER	3 cr.

Summary of the Changes in The BC Program

Added Existing Courses	<ul style="list-style-type: none"> • One major elective from a pool of existing CS courses
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FNAS - Department of Computer Science

B.S. in Computer Graphics and Animation

Approved by the UC on May 24th, 2011
Approved by the BOD on February 2nd, 2011

Introduction

How do we make the three-dimensional curves of a football look real on a two-dimensional screen? A student majoring in Computer Graphics and Animation (CGA) will learn how to do it by using 3D Modeling, color techniques, object rendering and lighting to create realistic environments and movements for movies and video games.

A student majoring in CGA will not only learn to use a large number of available software to create realistic images but will also learn how to develop their own graphics software and computer games programs.

Computer animation is probably the most successful application of digital technology in the creative arts. It has revolutionised the world of film special effects and has created a totally new leisure activity - computer games, which at a global level is a billion-dollar industry. Computer animation is seen in television productions, films, animated feature films, computer games, training videos, scientific visualisation, flight simulation, virtual environments, etc. All of these sectors offer exciting and rewarding career prospects for CGA graduates.

Since CGA is a Bachelor of Science degree, students planning to enter this field require a good scientific background at school. They must enjoy artistic hand drawing, artistic computer drawing and industrial drawing. They must be equally fascinated by an intelligent robot or a colorful painting and they must have a good eye for color and perspectives.

Hybrid programs such as CGA could yield a new generation of visually literate scientists, and could provide us with graduates with dual art and science capabilities.

Teaching Team

The teaching team will be composed of the computer science faculty members of the Faculty of Natural and Applied Sciences in collaboration with some faculty members of the Faculty of Architecture Art and Design.

Number of Credits required: 94

GER : 27 credits,

Core courses : 24 credits,

Major courses : 37 credits, and

FE : 6 credits (free electives).

The Degree of Bachelor of Science in Computer Graphics and Animation

The B.S. in Computer Graphics and Animation (CGA) is the study of the technical foundations, design and development of Computer Graphics and Animation. This program prepares students for careers as graphics software developers, computer game designers, character animators and for graduate study in computer graphics or game development.

Admission Requirements

The admission requirement to the degree of BS in Computer Graphics and Animation (CGA): Lebanese Baccalaureate Part II in one of the strands of General Sciences, Life Sciences or Social Sciences & Economics, or its equivalent as certified by the Lebanese Ministry of Education.

The selection depends on the following assessment model:

- 1. TOEFL, or Writing Section of SAT I, or EET (for NDU English proficiency requirements).
- 2. SAT I or NDU Entrance Test.

- 3. Secondary School Grades. School grades (second and third secondary years) are weighted 55% and SAT I (or NDU Entrance Test) 45%.

Graduation Requirements

To receive the degree of BS in computer graphics and animation, a student must fulfill all requirements of the degree program, complete all required courses, accumulate a total of 94 credits with an overall grade point average (GPA) of at least 2.0/4.0 and a minimum GPA of 2.0/4.0 in both the core and major requirements, and clear all accounts with the university. Candidates for degrees are reminded that grades of “I” assigned during the last semester to courses required for graduation will result in delaying their graduation.

Residency Requirement

- Minimum number of semesters spent at NDU is six (two summer sessions are counted as one full semester).
- Maximum allowed number of semesters to be spent at NDU is twelve.

Degree Requirements (94 Credits)

General Education Requirements

27 cr.

A - Communication Skills in English and Arabic

9 cr.

- Two courses from the subcategory English (6 cr.)

ENL 213 And

ENL 223 Or ENL 230

- One course from the subcategory Arabic (3 cr.)

ARB 211, ARB 212, ARB 224, ARB 231, ARB 317

B - Philosophy and Religion

6 cr.

- One course from the subcategory Religion (3 cr.) REG 212, REG 213, REG 313, REG 314

- One course from the subcategory Philosophy (3 cr.)

ENS 205, PHL 211, PHL 311, POS 345

C - Cultural Studies and Social Sciences

3 cr.

- One course from the category Cultural Studies and Social Sciences (3 cr.)

HUT 305, HUT 306, MUS 210, FAP 215, COA 359, COA 315, NTR 215, ARP 215, PSL 201, SOL 201, SOL 301, BAD 201, ECN 200, ECN 211, ECN 212

D - Citizenship

3 cr.

- One course from the category Citizenship (3 cr.)

HIT 211, POS 201, POS 210, POS 240, IAF 301, POS 319, POS 337

E - Science and Technology

6 cr.

- One course from the subcategory Mathematics/Statistics/Computer Science (3 cr.)

CSC 201, CSC 202, MAT 201, MAT 202, MAT 204, MAT 211, STA 202, STA 210

- One course from the subcategory Natural Sciences (3 cr.)

AST 201, BIO 202, BIO 203, CHM 211, ENS 201, ENS 202, ENS 206, HEA 201, NTR 201, PHS 207, GIS 211

Core Requirements

24 cr.

CSC 212, CSC 213, CSC 313, MAT 211, MAT 215, MAT 227

FAP 211, ARP 223.

Major Requirements **37 cr.**

CSC 231, CSC 277, CSC 278, CSC 279, CSC 343, CSC 375, CSC 412, 34 cr.

CSC 422, CSC 430, CSC 443, CSC 480, CSC 490 3 cr.

Choose one course from the following list : CSC 273, CSC 306, CSC 318, CSC 323, CSC 325, CSC 385, CSC 387, CSC 423, CSC 432, CSC 435

Free Electives **6 cr.**

**BS in Computer Graphics and Animation
(94 Credits)**

Fall Semester I (15 Credits)

FAP	211	Drawing I	3 cr.
CSC	202	Computers for Visual Arts (GER)	3 cr.
CSC	212	Program Design & Data Abstraction I	3 cr.
CSC	277	Software Packages for Computer Graphics I	3 cr.
ENL	213	Sophomore English Rhetoric (GER)	3 cr.

Spring Semester I (15 Credits)

ARP	223	Descriptive Geometry	3 cr.
CSC	213	Program Design & Data Abstraction II	3 cr.
CSC	231	Multimedia Applications	3 cr.
ENL	230	English in the Work Place (GER)	3 cr.
—	—	GER	3 cr.

Summer Semester I (6 Credits)

MAT	211	Discrete Mathematics	3 cr.
CSC	278	Software Packages for Computer Graphics II	3 cr.

Fall Semester II (15 Credits)

MAT	215	Linear Algebra I	3 cr.
CSC	313	Data Structure using C++	3 cr.
CSC	422	Introduction to Image Processing	3 cr.
CSC	279	Software Packages for Computer Graphics III	3 cr.
MAT	227	Mathematics for Computer Games and Animation	3 cr.

Spring Semester II (15 Credits)

CSC	343	Character Animation	3 cr.
CSC	375	Computer Modeling and Simulation	3 cr.
CSC	412	Introduction to Computer Graphics	3 cr.
CSC ¹	—	Major Elective	3 cr.
—	—	GER	3 cr.

Summer Semester II (1 Credit)

CSC	480	Internship	1 cr.
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Fall Semester III (15 Credits)

CSC	443	Computer Games Design	3 cr.
CSC	430	Computer Graphics and Animation	3 cr.
—	—	Free Elective	3 cr.
—	—	GER	3 cr.
—	—	GER	3 cr.

Spring Semester III (12 Credits)

CSC	490	Senior Study	3 cr.
—	—	Free Elective	3 cr.
—	—	GER	3 cr.
—	—	GER	3 cr.

¹Choose one course from the following list: CSC 273, CSC 306, CSC 318, CSC 323, CSC 325, CSC 385, CSC 387, CSC 423, CSC 432, CSC 435

Summary of the Changes in The CGA Program

Added New Courses	<ul style="list-style-type: none"> • MAT 227: Mathematics for Computer Games and Animation
Added Existing Courses	<ul style="list-style-type: none"> • CSC 430: Computer Graphics and Animation • One major elective from a pool of existing CS courses • CSC 480: Internship (1 cr)
Deleted Courses	<ul style="list-style-type: none"> • ARP 213: Basic Technical Skills • MAT 213: Calculus III • MAT 224: Calculus IV
Moved to The Pool of Major Elective	<ul style="list-style-type: none"> • CSC 325: Analysis of Algorithms • CSC 423: Software Engineering • CSC 435: Operating Systems & Networks

Mapping Between old and new contract sheets:

Old Contract Sheet	New Contract Sheet
MAT 213	MAT 277
MAT 224	Choose one course from the following pool : CSC 273, CSC 306, CSC 318, CSC 323, CSC 385, CSC 387 (or any level 4 CS course taken after chairperson approval)
CSC 325	CSC 430 (or any level 4 CS course taken after chairperson approval)

FNAS - Department Of Computer Science

B.S. in Geographic Information Systems

Approved by the UC on July 6, 2011
Approved by the BOD on June 8, 2011

The degree of Bachelor of Science in Geographic Information Systems

Geographic Information Systems (GIS) is a growing field in computer technology. GIS technology majors learn to use software and other tools to gather, assemble, and present detailed geographical data in maps and other forms. Our program offers a hands-on learning environment that prepares our students to join many of the emerging areas of applications of GIS such as infrastructure management, public health and safety as well as other business uses.

Admission Requirements

The admission requirement to the degree of BS in Geographic Information Systems (GIS): Lebanese Baccalaureate Part II in one of the strands of General Sciences, Life Sciences or Social Sciences & Economics, or its equivalent as certified by the Lebanese Ministry of Education.

The selection depends on the following assessment model:

- 1. TOEFL, or Writing Section of SAT I, or EET (for NDU English proficiency requirements).
- 2. SAT I or NDU Entrance Test.
- 3. Secondary School Grades. School grades (second and third secondary years) are weighted 55% and SAT I (or NDU Entrance Test) 45%.

Graduation Requirements

To receive the degree of BS in Geographic Information Systems, a student must fulfill all requirements of the degree program, complete all required courses, accumulate a total of 91 credits with an overall grade point average (GPA) of at least 2.0/4.0 and a minimum GPA of 2.0/4.0 in both the core and major requirements, and clear all accounts with the university. Candidates for degrees are reminded that grades of "I" assigned during the last semester to courses required for graduation will result in delaying their graduation.

Residency Requirement

- Minimum number of semesters spent at NDU is six (two summer sessions are counted as one full semester).
- Maximum allowed number of semesters to be spent at NDU is twelve.

**Degree Requirements
(91 credits)**

General Education Requirements	27 cr.
A - Communication Skills in English and Arabic	9 cr.
- Two courses from the subcategory <i>English (6 cr.)</i> ENL 213 And ENL 223 Or ENL 230	
- One course from the subcategory <i>Arabic (3 cr.)</i> ARB 211, ARB 212, ARB 224, ARB 231, ARB 317	
B - Philosophy and Religion	6 cr.
- One course from the subcategory <i>Religion (3 cr.)</i> REG 212, REG 213, REG 313, REG 314	
- One course from the subcategory <i>Philosophy (3 cr.)</i> ENS 205, PHL 211, PHL 311, POS 345	
C - Cultural Studies and Social Sciences	3 cr.
- One course from the category <i>Cultural Studies and Social Sciences (3 cr.)</i> HUT 305, HUT 306, MUS 210, FAP 215, COA 359, COA 315, NTR 215, ARP 215, PSL 201, SOL 201, SOL 301, BAD 201, ECN 200, ECN 211, ECN 212	
D - Citizenship	3 cr.
- One course from the category <i>Citizenship (3 cr.)</i> HIT 211, POS 201, POS 210, POS 240, IAF 301, POS 319, POS 337	
E - Science and Technology	6 cr.
- One course from the subcategory <i>Mathematics/Statistics/Computer Science (3 cr.)</i> CSC 201, CSC 202, MIS 201, MAT 201, MAT 202, MAT 204, MAT 211, STA 202, STA 210	
- One course from the subcategory <i>Natural Sciences (3 cr.)</i> AST 201, BIO 202, BIO 203, CHM 211, ENS 201, ENS 202, ENS 206, HEA 201, NTR 201, PHS 207, GIS 211	
Core Requirements	28 cr.
CSC 216, CSC 217, CSC 226, CSC 417, CSC 435, CSC 480, MAT 215, STA 210	22 cr.
Choose two courses from the following list: CSC 218, CSC 273, CSC 231, CSC 219, CSC 301, CSC 305, CSC 306, CSC 316, CSC 323, CSC 385, CSC 387, CSC 423, CSC 463, CSC 485, GIS 411	6 cr.
Major Requirements	30 cr.
CEN 250, CEN 251, CSC 446, CSC 318 or GIS 211, GIS 311, GIS 321, GIS 331, GIS 352, GIS 441, GIS 452, GIS 490	
Free Electives	6 cr.

**Bachelor of Science in Geographical Information Systems
Suggested Program (91 Credits)**

Fall Semester I (15 Credits)

CSC	201	Computers and Their Use (GER)	3 cr.
CSC	216	Computer Programming I	3 cr.
GIS ³	211	Principles of GIS	3 cr.
ENL	213	Sophomore English Rhetoric (GER)	3 cr.
STA	210	Applied Statistics for Business & Economics	3 cr.

Spring Semester I (15 Credits)

CSC	217	Computer Programming II	3 cr.
CSC	226	Database Programming for Business	3 cr.
GIS	311	Desktop GIS	3 cr.
ENL	230	English in the Workplace (GER)	3 cr.
REG	—	GER	3 cr.

Fall Semester II (15 Credits)

GIS	321	Spatial Analysis & Modeling	3 cr.
GIS	352	Theories of Remote Sensing	3 cr.
MAT	215	Linear Algebra	3 cr.
CEN	250	Surveying	2 cr.
CEN	251	Field Surveying	1 cr.
—	—	GER	3 cr.

Spring Semester II (15 Credits)

CSC	—	Major Elective	3 cr.
CSC	446	Applied Database Systems	3 cr.
GIS	331	Implementations of GIS	3 cr.
GIS	452	Advanced Remote Sensing	3 cr.
ARB	—	GER	3 cr.

Summer Session II (1 Credit)

CSC	480	Internship	1 cr.
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Fall Semester III (15 Credits)

CSC	417	Advanced Programming Technologies	3 cr.
CSC	435	Operating Systems & Networks	3 cr.
GIS	441	Cartography, Geodesy and GPS	3 cr.
—	—	Free Elective	3 cr.
—	—	GER	3 cr.

Spring Semester III (15 Credits)

GIS	490	Senior Project	3 cr.
CSC	—	Major Elective	3 cr.
—	—	Free Elective	3 cr.
—	—	GER	3 cr.
—	—	GER	3 cr.

Summary of the Changes in the GIS Program

Added Existing Courses	<ul style="list-style-type: none"> • One major elective from a pool of existing CS and GIS courses • CSC 480 (Internship)
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³ GIS 211 or CSC 318 could be taken

FNAS – A New GER Course BIO 201 - Your Body in Action

Approved by the UC on July 6, 2011
Approved by the BOD June 22, 2011

Rationale

The GER pool in the basic sciences group (group 6) lacks course variety in certain areas of the sciences, such as Biology and Chemistry. As part of extending science education to reach out for a larger group of undergraduates of different educational backgrounds and interests, diversifying the GER course pool offered by the Department of Sciences is indispensable. Accordingly, I would like to propose a basic, 3-credit introductory course in human physiology – **BIO 201**. The course is intended for all majors and requires no prior knowledge of physiology or biology. It is structured to instruct students about the functional design of their body. Each chapter considers a body system weaved around a unifying physiological concept and connects to intriguing topics in medicine and technology that are common life applications. For example, the worldwide use of Botox in cosmetic surgery for reducing skin wrinkling is based on the inhibitory effect of a bacterial toxin on the release of a neurotransmitter – acetylcholine – from motor neuron synapse as to prevent skeletal muscle contraction. The topic is wrapped within the chapter that discusses the muscular system and its control by peripheral nerves.

Briefly, the value of the course can be seen as three fold:

- 1- Diversify the GER pool in the basic sciences and accommodate for the teaching load of instructors.
- 2- Extend science education to a larger group of students
- 3- Increase students' literacy about physiological applications in everyday life

Please find attached a tentative syllabus to the course.

NB: to be added into the Basic Science Pool, in Human Physiology

BIO 201 - Your Body in Action (3 credits)

Course Description: The course is a balanced introduction to how the human body works and the integrated action of its various systems. Basic concepts in physiology are blended into clinical and technological applications to make learning more appealing and interactive. Special topics connecting to wellness and aging are also considered.

Course (learning) objectives: this course is intended for non-biology majors to further their knowledge about how their body works, while conveying basic information in a simple and appealing way. The student is expected to gain the following:

- 1- Learn about the organization of the body and its ability to interact with its environment; appreciate the fundamental physiological concept of life – *homeostasis*.
- 2- Understand the physiological basis of some clinical and technological applications.
- 3- Appreciate the functional integration of body systems and the changes that accompany aging.

Textbook: Essentials of Anatomy and Physiology, Gerard J. Tortora and Bryan Derrickson. 8th Edition. Wiley Publishers, 2010.

Useful references: Anatomy and Physiology, Gail W. Jenkins, Christopher P. Kemnitz and Gerard J. Tortora. 2nd Edition. Wiley Publishers, 2010.

Campbell Essential Biology with Physiology, Eric J. Simon, Jane B. Reece and Jean L. Dickey. 3rd Edition. Pearson Publishers, 2010.

Tentative table of contents:

1. Introduction: Organization of the human body

- a. Levels of biological organization.
- b. Body systems.
- c. Basic life processes.
- d. Homeostasis: definition and mechanisms of maintenance.

Connection to aging

Clinical connection: Autopsy

Wellness connection: Good health – homeostasis is the basis

2. Chemical compounds and life processes

- a. Overview of compounds: organic vs inorganic.
- b. Impact on health.

Clinical connection: Free radicals and their impact on health

Fatty acids in health and disease

Lactose intolerance; Favism

Wellness connection: Herbal supplements – they are natural but are they safe?

3. Cells and tissues

Cells:

- a. Overview of cell types.
- b. Basic components.

Clinical connection: Smooth endoplasmic reticulum and increased drug tolerance; Genomics.

Connection to aging Wellness connection: Phytochemicals – protecting cellular function.

Tissues: Overview of tissue types.

Clinical connection: Papanicolaou test;

Chondroitin sulfate in cosmetics (skin rejuvenation);

Liposuction

Tissue engineering

Connection to aging Wellness connection: Excess Adiposity – too much of a good thing.

4. **The skin**

- a. Basic components.
- b. Skin color determination and freckles.
- c. Major functions.

Clinical connection: Skin grafts, Tattooing and body piercing, Acne, Burns.

Connection to aging Wellness connection: Skin care for active lifestyles.

5. **The skeleton and muscles**

Skeleton:

- a. Overview of parts and types of bones.
- b. Basic functions and characteristics.

Clinical connection: Orthodontics, TMJ syndrome, Epidurals (caudal anesthesia),
Carpal tunnel Syndrome.

Connection to aging Wellness connection: Exercise and bone.

Muscles:

- a. Overview of muscle types and function.
- b. Muscle and exercise.

Clinical connection: Botox, Creatine supplementation, Anabolic steroids.

Connection to aging Wellness connection: Effective stretching increases muscle flexibility.

6. **The nervous system and senses**

- a. Parts (central vs peripheral) and basic cell types.
- b. Basic functions.

Overview of synaptic transmission

Clinical connection: Anesthetics, Anti-depressants and drugs of abuse.

Wellness connection: Neurotransmitters: why food affects mood.

The brain

Focus on interesting brain regions; How do we keep track of time.

Clinical connection: Shingles, Alzheimer disease.

Connection to aging Wellness connection: Coffee nerves: health risks of caffeine.

The peripheral nerves

Sympathetic vs parasympathetic.

Clinical connection: Vasovagal reflex

Wellness connection: Mind-Body-Exercise: an antidote to stress.

Somatic and special senses

- a. Pain and analgesia.
- b. Taste, vision and hearing.

Clinical connection: Taste aversion, Color blindness and night blindness,
Cataracts, Hearing devices.

Wellness connection: Pain management: sensation modulation.

7. **The glands**

- a. Overview of types of glands.
- b. Concept of hormone action.

Clinical connection: Blocking hormone receptors (contraceptives), Synthetic oxytocin, Nonsteroidal anti-inflammatory drugs (NSAIDs).

8. **The Cardiovascular system**

Blood:

- a. Basic components.
- b. Blood clotting.
- c. Blood groups and blood types.

Clinical connection: Aspirin and Thrombolytic agents.

Wellness connection: Lifestyle and blood circulation.

- Heart:
- a. Anatomical overview and basic function.
 - b. Exercise and the heart.
- Clinical connection:** *Heart valve disorders; Artificial pacemakers.*
- Connection to aging**
- Wellness connection:** *Cardiac death during exercise: what's the risk?*
- Blood vessels:
- Types and basic function.
- Clinical connection:** *Shock.*
- Wellness connection:** *Arterial health: undoing the damage of atherosclerosis, Red wine and vascular protection.*
9. **The digestive system**
- Overview: components and function.
- Clinical connection:** *Gallstones, Liver function tests, Diarrhea and constipation, Appendicitis.*
- Connection to aging wellness connection:** *Emotional eating: consumed by food.*
10. **The respiratory system**
- General overview of components and basic function.
- Clinical connection:** *Rhinoplasty (nose job), high altitude sickness, Hypocapnia and ventilation exercises for swimmers.*
- Connection to aging Wellness connection:** *Smoking: a breathtaking experience.*
11. **The urinary system**
- Major components and functions.
- Clinical connection:** *Diuretics, Urinary incontinence, Renal failure.*
- Connection to aging Wellness connection:** *Infection prevention for recurrent UTIs.*
12. **The reproductive system**
- Male reproductive system: Overview and basic functions.
- Clinical connection:** *Failure of testicular descent.*
- Female reproductive system: Overview and basic functions.
- Clinical connection:** *Ovarian cyst, Breast cancer, Hysterectomy, Fibrocystic disease.*
- Birth control methods: general overview
- Wellness connection:** *The female athlete triad: disordered eating, amenorrhea and premature osteoporosis.*
13. **Embryology and inheritance**
- Introduction to embryonic developmental stages and characteristics of embryonic cells.
- Clinical connection:** *Twin formation and fertilization drugs.*
- Wellness connection:** *Breast milk: mother nature's approach to infection prevention.*

FNAS - Department of Computer Science
New GER Course
MIS 201: Introduction to Management Information Systems

Approved by the UC on July 6, 2011
Approved by the BOD on June 8, 2011

Introduction

Nowadays the importance of information systems for the survival and prosperity of any modern enterprise is widely recognized and agreed upon. Modern enterprises are unable to automate their daily activities or make crucial business decisions without the use of information systems.

Most students belonging to various academic backgrounds (Sciences, Engineering, Business, Arts, Humanities, Political Sciences, etc...) are going to join a certain enterprise, or even start their own business. Having general knowledge of MIS could give them an insight onto the digital world, which could help them in getting their daily work done in an easier and more coordinated fashion.

Whether the students become managers, staff members, or entrepreneurs, they are most likely going to encounter information systems in their workplace. Having general knowledge about such systems would definitely be a positive factor.

**NB: To be added to the “Science and Technology” pool
(Mathematics/Statistics/Computer Science subcategory)**

FNHS - Nutrition Program Amendments

Approved by UC on July 6, 2011
Approved by BOD on June 16, 2011

- **HEA 204: Contemporary Health Issues (3.0); 3cr.** This course intends to provide students with the latest information on major current health issues and to teach them skills for them to be able to critically evaluate it. It covers quality and timely articles on a variety of health topics written by authors with diverse educational backgrounds and expertise. *Prerequisite:* Sophomore-standing.

New Course

- **NTR 580** Dietetics Internship **6 cr.** Supervised dietetic training for a period of at least 6 months at an affiliated hospital. *Prerequisite:* BS in Nutrition and Dietetics.

Amendment to the program

- **NTR 430** is introduced as a prerequisite to NTR 441

FPSPAD – MA in Political Science Human Rights Concentration (36 cr.)

Approved by the UC on July 6, 2011
Approved by the BOD on June 15, 2011

A- Assessment of Overall Demand

The professors (mentioned below) involved with HR research and training in the FPSPAD, Drs. El-Hindy, Labaki, and Sensenig-Dabbous have contacted the most relevant HR institutions in Lebanon, both domestic and international, and ascertained the distinct need for a Master's Program in HR. Furthermore, we have contacted a variety of NGOs working with particularly endangered groups under HR norms related to political, social, and cultural rights, e.g. in the fields of gender, migration, disabilities, employment, and ethnicity, and determined their keen interest in a MA in HR at NDU.

Finally, the ongoing internationalization of our work in the FPSPAD, together with intergovernmental and regional bodies related to the UN and EU, have encouraged us to consider that a Master's Degree in HR will enhance the university's profile and reputation.

B- Rational for an MA in Human Rights

Postgraduate instruction in the field of human rights (HR) has become the norm in most universities in Europe and North America. It is also making tremendous strides throughout the Middle East and North Africa (MENA) region. NDU has played an important role in the mainstreaming of human rights education in Lebanon over the last decade and has also been selected on various occasions to participate in the networking of HR educational and research endeavors between universities in the MENA and with universities in the West. In the area of service, various projects have been initiated at NDU which are linked to volunteerism and internship placement in fields relevant to a career in HR in the region.

The FPSPAD at NDU inspired by the mission of the university, has thus decided to take the challenge of playing its developmental role and be a pioneer in the area of forming individuals from Lebanon and the region to acquire the knowledge and tools necessary to become actors of change in their respective societies. Within this context of mainstreaming and networking HR, the FPSPAD has determined that a master's degree in the field will greatly facilitate its ongoing teaching, service, and research activities. This MA will enable NDU graduates to not only interface with HR studies in the MENA region, but will also help establish a bridge to latest state of the art discourse and theories notably with European universities – within the ongoing EuroMed activities in the field – and with various universities in the United States. The introduction of a Master's Degree in Human Rights will build on past experience and enjoy the active support of various experts and universities which have actively cooperated with the Political Science Department, the FPSPAD, and NDU as a whole.

C- Description of the MA in Human Rights

The Master's Degree in Human Rights (MAHR) is a multidisciplinary degree within the Department of Political Science in the Faculty of PSPAD and will include courses from POS, IAF, NGO, INL, and CPL. The MAHR was designed to give graduates a multi-dimensional approach to human rights that includes both a grasp of the relevant theories, laws, and international treaties, as well as an introduction to the practical skills involved in the field, using follow up mechanisms, reporting, advocacy, lobbying, networking, social change agendas, and transformation of conflicts. MAHR will cover the latest international developments in the field and will also have a significant emphasis on the situation of human rights in the MENA region. Thus, through practical cooperation with local, regional, and international NGOs working in the region, along with a thesis and the option of an internship, the MAHR offers students the chance to gain both theoretical and hands on human rights

experience, confronting them directly with its challenges and achievements prior to entering the career market.

D- Courses & Requirements

Students seeking the degree of MA in Political Science - Human Rights concentration in the Faculty of PSPAD must meet the University graduation requirements and complete **36 credits** with a GPA of at least 3.0/4.0. The 36 credits are divided as follows:

Core Requirements: (9 Credits)

IAF 601: International Relations: Theory and Practice

IAF 605: International Organizations and Specialized Agencies

POS 681: Research Methods

Major-Related Electives: (15 credits to be chosen from the below pool)

IAF 604: Human Rights in International Politics

CPL 605: Current Issues in Human Rights and Global Justice

NGO 605: Civil Society, NGOs, Networking and Advocacy

IAF 609: Ethnic Conflict and Conflict Resolutions

IAF 617: Democracy and Democratization in the international System

INL 638: International Law of Human Rights

IAF 641: Public International Law

INL 646: Law of War: International Humanitarian Law

(New courses to be developed)

POS 602: Introduction to Human Rights Standards

POS 608: International Treaty Systems of Human Rights

POS 614: Civil and Political Rights

POS 615: Economic, Social and Cultural Rights

POS 616: Rights of Vulnerable Groups

POS 632: Human Rights in the MENA Region

POS 649: Human Rights in Religious Thought

POS 658: Information Technology and Human Rights

Electives: (6 Credits)

- POS 689: Internship in Human Rights and another course related to the major

- Or any two courses related to the major

Thesis: (6 Credits)

POS 698: Thesis in Human Rights

E- Description of the New Courses:

POS 602 *Introduction to Human Rights Standards* (3.0) 3 cr. The primary aim of this course is to introduce students who have no knowledge of human rights to the basic concepts and principles of human rights and the theoretical debates that surround them. The course focuses on the origins and sources of human rights and how they developed throughout history to become internationally recognized standards. The course also introduces students to the importance and impact of human rights standards in domestic politics and international relations, in the maintenance of democracy and state stability in the modern world.

POS 608 *International Treaty Systems of Human Rights* (3.0) 3 cr. The course explores the development of the international treaties covering different aspects of human rights through the

United Nations, the European Union, and other regional organizations. It introduces the students to the bodies related to these treaties, their importance, functioning, and relevant mechanisms; giving students basic knowledge on how to make use of these bodies to help protect, promote, and implement basic human rights values.

POS 614 *Civil and Political Rights* (3.0) 3 cr. This seminar provides students with a detailed review of current civil and political rights. The review will cover the theoretical debates around the rights and practical challenges in their application in general, and Arab and Lebanese contexts in particular.

POS 615 *Economic, Social and Cultural Rights* (3.0) 3 cr. This seminar provides students with a detailed review of all the economic, social and cultural rights. The review will cover the theoretical debates around the rights and practical challenges in their application in the general, and Arab and Lebanese contexts in particular.

POS 616 *Rights of Vulnerable Groups* (3.0) 3 cr. This seminar explores the different treaties created to cover the rights of vulnerable groups including women, children, minorities, indigenous peoples, migrant workers, refugees, and the disabled. The seminar explores the reasons for which those treaties were added to the basic original general human rights treaties and the benefits their application can give to a society, notably their added value for the development processes of individual countries. *Prerequisite: POS 608*

POS 632 *Human Rights in the MENA Region* (3.0) 3 cr. This seminar views human rights in a regional context and evaluates the history, the current situation, and the future prospects for human rights in the MENA region. It explores the structural problems and challenges that the advancement of human rights is facing and introduces successful experience and good practice that have achieved change and made a difference in their respective societies.

POS 649 *Human Rights in Religious Thought* (3.0) 3 cr. Due to the lately increased importance of religion in international politics and to its longstanding importance in societies, politics and conflicts of the MENA region, this seminar provides a review of the different religions' positions and views on human rights. Added focus will be provided for the three monotheistic religions that are the main players and have the most influence in MENA politics. The seminar will also explore the possible conflicts between human rights and religious teachings and survey conciliatory approaches. *Prerequisite: POS 602*

POS 658: *Information Technology and Human Rights* (3.0) 3 cr. Technological developments in the field of information and communication (ICT) have had a tremendous impact on the field of human rights. This course will emphasize the significance of these changes with respect to freedom of expression, access to information, and protection against undue intrusion in the private sphere. It will also highlight the impact of ICT on protection of cultural rights and innovations in the economic and social fields, including economic opportunities for marginalized groups and regions. *Prerequisite: POS 602*

POS 689 *Internship in Human Rights* (3.0) 3 cr. This course provides a supervised on-the-job working experience in human rights. The internship will be done in cooperation with recognized international and national institutions and organizations from the public and private sector. Interns will have the opportunity to develop new skills by working under the direction

and supervision of an experienced practitioner. A minimum of 120 hours of internship is required. A detailed report is to be submitted as a record of the work accomplished.

POS 698 *Thesis in Human Rights* (6.0) 6 cr. The thesis involves the application of research methods to a significant topic of current relevance to the spheres of human rights. It requires the incorporation of the student's hypotheses, methods of testing, test results, and conclusion in a sound, rigorous, and scholarly report.

F- Faculty Members with Relevant Experience:

Dr. Elie Al Hindy - current coordinator of human rights courses and activities, extensive experience in human rights advocacy, training and education in formal and informal contexts

Dr. Eugene Sensenig-Dabbous - more than 30 years of experience in civil society and special expertise on migration rights, civil rights and economic and social rights.

Dr. George Labaki - PhD in international law and extensive experience in teaching Lebanese and international law, and international justice.

Dr. Rita Sabat - PhD dissertation on Women's movement in Lebanon and extensive experience in teaching gender related topics, NGOs and civil society.

In addition to the four qualified full timers, the faculty has established partnerships with many individuals and institutions that can be part of the proper development and delivery of these courses.