

The NDU Gazette

A publication covering decisions taken at the BOD and UC meetings

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Issue Number One, December 2009

FAAD Promotion Policy for Faculty Members

Prepared by Sub-Committee: *Thursday, 26th November 2009*

Dr. Georges Eid (Dean FNAS)

Dr. Elias Nassar (Dean FE)

Mr. Habib Melki (Acting Dean FAAD)

Approved by the BOD on Dec. 2, 2009 and the UC on Dec. 16, 2009

The BOD in its meeting on Oct. 28, 2009 decided on the following:

1. The BOD agrees that the change is a must and the need to be compatible with the international system.
2. A subcommittee will propose the final guidelines to vote upon
3. The subcommittee will be chaired by Mr. Melki and include Dr. Nassar and Dr. Georges Eid
4. The proposal will be discussed in the BOD to be meeting on Nov. 25, 2009.
5. Fr. Moussa wished that a procedure for implementation be also included in the proposal taking into consideration faculty members who have already been with NDU.

During the series of meetings of the sub-committee held on the 3rd, 17th and 26th of November 2009 in the FAAD, the following was agreed upon:

New Promotion Policy for FAAD Teaching Members (inspired by AUB bylaws)

This Policy is to be implemented retroactive as of 1st October 2009

I. INTRODUCTION

Appointments and promotions in the Faculty are subject to the general University policies, appended to this chapter, and supplemented by policies that are particular to the Faculty, as stated below.

II. GENERAL STATEMENTS OF POLICY

A. Appointment and Reappointment of Full- Time Faculty Members

1. Appointments in professorial ranks are restricted to individuals in the Department of Architecture, Art and Design, to individuals having a master's degree, doctorate and PhD.
2. An applicant with a master's degree in architecture, art, design, or a related field, is eligible for appointment as a full-time lecturer in the Department of Architecture and Design. After three years in this rank, the Architecture faculty member becomes eligible for promotion to the rank of assistant professor. Similarly and after four years the Art/ Design faculty member becomes eligible for promotion to the rank of assistant professor. If the applicant having a master's degree already has more than ten years of professional and/or teaching experience, then he/she should serve as a full-time lecturer in the Department of Architecture and Design for at least one year before becoming eligible for promotion to the rank of assistant professor.
3. An applicant with a Master's of Fine Arts (MFA) degree in the Design/Arts Departments, or a related field, is eligible for appointment as a full-time lecturer in the Department of Design. After three years in this rank, the Design faculty member becomes eligible for promotion to the rank of assistant professor.

B. Promotion of Full-Time Faculty Members

1. Promotion of full-time Architecture, Art and Design Faculty members will be based primarily upon teaching performance, professional achievements, and research output.
 - a) Promotion from Lecturer to Assistant Professor *will be based upon a file which shows proof of the Faculty member's professional, research and academic development.*
 - b) Promotion from Assistant Professor to Associate Professor and from Associate Professor to Professor will be based upon *professional and teaching performance and research output.*
2. Specifics about research/creativity output at the FAAD will be the object of a supplementary document.

Financial Aid Policy and Research Support

Approved by the UC on Dec. 16, 2009

According to data in the Eligibility Requirements Report, the university spent about 17 % of its 2006 budget on financial aid. This represents an amount in excess of 4 millions USD. The bulk of it, it is assumed, goes to work-study grants. We propose a modification to the procedure in which students under the work-study grant program are assigned to offices towards a stronger institutional research support. It is assumed that students under the scholarship program are not required to do any work.

Students are currently assigned to different offices based on requests from faculty members for office assistants. However, current rules forbid a faculty to name the student he or she wishes to have in his/her office. The student is usually assigned to an office for no more than one or two semesters. It is understood that this is put in place to avoid the trading of influence.

The proposal that follows is based on the premise that we are a primarily undergraduate institution where students should be involved in research projects of faculty members. The other premise is the fact that today's research work is essentially a team effort where an expert workforce is needed. On that basis, a long-term commitment of students to projects is needed. We thus propose to modify the financial aid policy to allow for the removal of the two taboos of the previous policy: allow faculty to name students who would help with their research projects and assign these to their offices for long-term periods, exceeding one year, under specific conditions outlined below.

Proposed Modifications

In order to support research, students with WSG who are interested in research training and/or support may choose to benefit from the policy and procedure outlined below. The Policy allows, under mutual agreement of the student and faculty, the assignment of specific students to the office(s) of the faculty member(s) provided they follow the procedure detailed below and meet the conditions set forth.

1. The faculty member should first submit a detailed research project to his/her respective chair and dean and obtained their approval. This proposal should clearly identify the kind of student help needed, the role of the students in the project and the qualifications required.
2. Based on the above, faculty members advertise their needs through the financial aid office who invites eligible and interested students to get in touch with the concerned faculty.
3. The faculty member(s) involved with the project, conduct interviews with the students to reach a final selection provided students have agreed to serve within the project.
4. Students are then assigned through the work-study grant program to the specific faculty members and project.
5. Assignments are automatically renewed every semester, after approval of the extended student aid, and upon the mutual agreement of both faculty and student, and the submission of a progress report to the chairperson's office and the SAO.

Additional Credits for Graduation (above 19 crs.)

Approved by the BOD on Jan. 14, 2009

Approved by the UC on Dec. 16, 2009

Current Policy

The proposal to allow students in good standing to take up to 19 credits per semester without having to write a petition was approved with the following addition provided that this number of credits does not contradict any residency requirements.

Amendment

As of October 2009, a student with a GPA of 3.5 and above, may petition to register for one additional 3 credit course over and above the regular load. This additional load, may be approved provided the residency requirements are met.

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

Approved by UCC on May 18, 2009

Approved by BOD on Dec. 9, 2009

Approved by the UC on Dec. 16, 2009

Course Rationale

Students who are taking a major in areas that require a solid basis in Arabic including, but not restricted to, Translation and Journalism need further practice in the application of writing Arabic. This course as proposed will offer students the opportunity to practice Arabic in an interactive learning setting

I. Course Description

ARB 302 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 Advertising, Journalism, Radio/TV language varieties.

II. Course Objectives

The aim of this course is to facilitate the systematic study and use of the Arabic language in some of its principal varieties, mainly those of: Advertising, Journalism, and Radio/TV.

III. Methodology

In an interactive learning setting, students experiment writing activities pertaining to media. The instructor's role is to facilitate students' progress in those activities which cover different kinds of writing forms: Articles, reports, interviews, discussion, synopsis short stories, letters, advertisements, rewriting, translation, etc.

IV. Suggested guidebooks

التلخيص: جينا أبو فاضل، دار المشرق
تدوين رؤوس الاقلام: ندى خوري، دار المشرق
المراسلة: هنري عويس، دار المشرق
التصميم: شاهين كلاس، دار المشرق

Instructor will compile a resource package for the students to include sample texts, guides to Arabic writing, and a comprehensive reading list.

FNAS - Department of Sciences

M.S. Program in Biology

Approved by the **BOD** on Dec. 9, 2009

Approved by the **UC** on Dec. 16, 2009

Rationale

Opening a new graduate program (M.S.) in Biology at NDU-Louaize will play a central role in the overall mission of the University to provide quality education, in the realm of basic and applied sciences. This new program will have the inherent potential to be at the forefront of scientific discovery in view of the excellent credentials and capacities of full time faculty members who will be involved in the program. It is our opinion that investing in the M.S. program in Biology will reward and benefit the University and will further reinforce its role as an academic institution of higher education in Lebanon. Many futurists call the 21st century “the century of Biology”. We should be ready, as an institution, to participate in the promising future of the many applications of Biology, particularly in the fields of health, agriculture and industry.

Currently in the Department of Sciences at NDU-Louaize, including the regional campuses, the B.S. program in Biology attracts the largest number of student population as compared to other majors in the Department of Sciences. In addition, more than 50% of our students with high academic standing pursue graduate degrees in Biology, including doctoral studies, in prestigious institutions in Lebanon and abroad such as McGill University. We are also proud to have many of our graduates accepted in medical schools. This is clearly an attestation to the high quality of education that we are offering at the undergraduate level. This same tradition of excellence will be continued at the graduate level.

Many students enrolled in the Biology program at NDU expressed their wish to have an M.S. program in Biology in addition to requests that we have received from outside sources. Based on the Outcome Assessment Committee survey conducted by the Department of Sciences during the past two years, 60% of students with GPA of 2.7 and above are considering or have already applied for graduate program in Biology. This is an opportune moment for us to grasp and open a graduate program in Biology to attract those students. Opening an M.S. in Biology will generate the momentum necessary to harness the strong potential of the fine team of six full time faculty members with Ph.D.’s in Biology and related sciences. The varied expertise that faculty members bring to the program in conjunction with graduate students provides an excellent atmosphere to conduct research. This will also open the door to collaborate with other universities in Lebanon and abroad on common research projects and the possibility of establishing exchange programs. In brief, we are confident that opening a graduate program in Biology will move the level of competence of the Department of Sciences to another level and add prestige to NDU-Louaize.

Support Facilities

Biology lab facilities

The biology laboratory is equipped with many facilities, which support teaching and research across the biology curriculum. Disciplines supported include:

- Microbiology: culture and analysis of viral, bacterial and parasitic species.
- Molecular biology: DNA purification, analysis, and manipulation, with preliminary PCR facilities for DNA amplification. Other available equipment, such as an electroporator, promote research studies that require electrotransformation or transfection of cells.
- Cell culture: preparation, culture and cryopreservation of animal cells.

- Plant biology: plant cell culture and analysis.
- Histology: histological assessment and histopathological examination of tissue samples.

Available equipment includes microscopes and photomicrographic systems, biological safety cabinets, incubators, liquid nitrogen containers, diurnal growth chamber, autoclave, centrifuges, ovens, microtome, paraffin histoembedder, electrophoresis and blotting apparatus, thermal cycler (PCR), chromatography systems.

Library resources

Faculty and students enjoy access to a rich collection of print and electronic resources in the Sciences, including books, journals, online databases, DVDs, maps, etc., provided through the NDU Libraries

Proposed Graduate Program

The Department of Sciences offers a Master of Science (M.S.) degree in Biology with the option of doing a thesis or following a course-work option. The purpose of this graduate program is to provide students with in-depth knowledge in advanced topics in Biology. Students are trained to be independent thinkers who are able to identify specific research problems in biology and investigate them.

The Degree of Master of Science in Biology

Admission Requirements

In addition to the university graduate admission requirements, candidates are expected to have a sufficient background in Biology. Those who do not meet these requirements may be given provisional admission pending satisfactory completion of some undergraduate courses as deemed by the Faculty Graduate Committee. The credits earned for these courses will not be counted towards the 30 credits required for the M.S. in Biology. Students are expected to be proficient in the English language, otherwise they should pass the University English Entrance Test or its equivalent.

Graduation Requirements

To satisfy the requirements for the degree of M.S. in Biology, the student must complete a total of 30 credits with an overall average of at least 3.0/4.0. A student can complete the required 30 credits by following one of the two options:

- 1. Course-work option:** 8 credits of required courses and 22 credits of elective courses.
- 2. Thesis option:** 8 credits of required courses, 13 credits of elective courses and a 9-credit thesis.

Based on the selection of elective courses, students can choose between two orientations: Molecular Biology or Ecology/Organismal Biology. The selected elective courses should be approved by the advisor.

The Thesis option provides the necessary background and research experience; this option is more appropriate for students planning to pursue a Ph.D. The course-work option is designed to provide a broader background in Biology and is more appropriate for students planning to join the market place.

Degree Requirements (*Course-Work Option*) - 30 Credits

	# of credits
1- Complete the following four required courses BIO 603, BIO 605, BIO 670, BIO 671	8 cr.
2- Complete 22 credits from the following list of courses BIO 608, BIO 609, BIO 610, BIO 611, BIO 613, BIO 617, BIO 619, BIO 620, BIO 625, BIO 626, BIO 628, BIO 630, BIO 635, BIO 636, BIO 637, BIO 638, BIO 641, BIO 645, BIO 646, BIO 650, BIO 660, BIO 680, BIO 681.	22 cr.
3-Pass one written comprehensive examination. This exam	

should be conducted after having completed at least 22 credits, including required courses, with an overall average of 3.0/4.0.

Master of Science in Biology (Course-Work Option) Suggested Program - 30 Credits
(This option may not be accepted by some institutions for pursuing Ph.D. program)

Fall Semester I (9 Credits)

BIO	603	Quantitative Analysis in Biology	3 cr.
BIO	6xx	Elective	3 cr.
BIO	6xx	Elective	3 cr.

Spring Semester I (7 Credits)

BIO	605	Research Methods in Biology	3 cr.
BIO	670	Seminar I	1 cr.
BIO	6xx	Elective	3 cr.

Fall Semester II (7 Credits)

BIO	6xx	Elective	4 cr.
BIO	6xx	Elective	3 cr.

Spring Semester II (7 Credits)

BIO	671	Seminar II	1 cr.
BIO	6xx	Elective	3 cr.
BIO	6xx	Elective	3 cr.

Degree Requirements (Thesis Option) - 30 Credits

	# of credits
1- Complete the following four required courses	8 cr.
BIO 603, BIO 605, BIO 670, BIO 671	
2- Complete 13 credits from the following list of courses	13 cr.
BIO 608, BIO 609, BIO 610, BIO 611, BIO 613, BIO 617, BIO 619, BIO 620, BIO 625, BIO 626, BIO 628, BIO 630, BIO 635, BIO 636, BIO 637, BIO 638, BIO 641, BIO 645, BIO 646, BIO 650, BIO 660, BIO 680, BIO 681.	
3- Complete the MS thesis requirements	9 cr.
BIO 691	

Master of Science in Biology (Thesis Option) Suggested Program - 30 Credits

Fall Semester I (9 Credits)

BIO	603	Quantitative Analysis in Biology	3 cr.
BIO	6xx	Elective	3 cr.
BIO	6xx	Elective	3 cr.

Spring Semester I (11 Credits)

BIO	605	Research Methods in Biology	3 cr.
BIO	670	Seminar I	1 cr.
BIO	6xx	Elective	3 cr.
BIO	6xx	Elective	4 cr.

Fall Semester II (10 Credits)

BIO	671	Seminar II	1 cr.
BIO	691	Thesis	9 cr.

Spring Semester II (0 Credits)

BIO	691	Thesis (continued)	0 cr.
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Regulations concerning the “thesis option” of the Master of Science in Biology

Master Thesis

Students may register for the thesis (BIO 691) upon the completion of at least 18 credits with an overall average of at least 3.0/4.0 and after receiving the approval of both the department chairperson and the thesis advisor. The grade will be reported as pass or fail.

Jury for the Oral Defense

The jury shall be composed of three members, including the thesis advisor, as appointed by the Department Chairperson.

Schedule for the Oral Defense

The oral defense for the master thesis shall be scheduled within a month from the date of submission of thesis copies to the jury members.

Evaluation and Grade

The jury shall evaluate the work for the master thesis and assign the appropriate grade by a majority vote.

Final Copy of the Master Thesis

The student shall submit two bound copies of the approved final copy of the master thesis, one to the Thesis Advisor and the other to the University Library.

Graduate Courses: Biology

BIO 603 Quantitative Methods in Biology (2.3); 3 cr. This course introduces biology students to statistical analysis, data acquisition, hypothesis testing, and computer applications in biological research.

BIO 605 Research Methods in Biology (1.5); 3 cr. This core course is designed to introduce students to conduct scientific research. Under the supervision of an instructor, students select a research project through which they learn about literature review including the access and use of print and electronic resources, proposal writing, research methods, experimental design and analysis in addition to scientific writing. At the discretion of the instructor this project can be extended in taking an additional tutorial course. This may serve as the nucleus of research for students with thesis option.

BIO 608 Advanced Biochemistry (4.0); 4 cr. This course covers the reaction bioenergetics and metabolic pathways of biomolecules. It also provides an in-depth knowledge of the function, structure, and mode of action of binding proteins and enzymes.

BIO 609 Advanced Molecular Biology (3.0); 3 cr. This course deals with the structure, function, and regulation of the gene. It covers the regulation mechanisms of gene transcription, RNA stability and translation, gene mapping and recombinant DNA technology. Prerequisite: consent of advisor.

BIO 610 Advanced Cell Biology (3.0); 3 cr. The course will focus in depth on topics of current research interest in the field of cell biology. Students will gain an understanding of the nature of cell biology research by means of a detailed discussion of primary literature (original research papers): experimental design, methods, results obtained, interpretation of results and implications for further studies.

BIO 611 Cancer Biology (3.0); 3 cr. This course provides students with an understanding of the molecular and cellular basis of cancer. Topics include: cell growth and cell death, oncogenes and tumor-suppressor genes, cell cycle regulation, tumor development, invasion and metastasis, and treatment of cancer.

BIO 613 Research Methods in Proteins Science (1.6); 3 cr. This course deals with methods used in proteins extraction, fractionation, purification, quantification, analysis, characterization, sequencing and modification.

BIO 617 Reproductive Biology (3.0); 3 cr. The course sheds light on the mammalian hypothalamo-pituitary-gonadal axis and its role in reproduction. It discusses the anatomy and hormonal control of the male and female reproductive systems at different developmental stages, and the mechanisms of fertilization and implantation. The endocrinology of pregnancy is also considered.

BIO 619 Plant Secondary Metabolites (3.0); 3 cr. This course surveys the field of plant natural products that are known as secondary metabolites. It covers the structure and biosynthesis of the main classes of plant secondary metabolites. In addition, the uses of secondary metabolites will be discussed.

BIO 620 Plant Genomics and Biotechnology (3.0); 3 cr. This course explores the modern techniques employed in plant genome modification: cloning and sequencing of nucleic acids, gene isolation and mapping, genetic transformation, and germplasm collection. The relevance of plant biotechnology to the different sectors of the economy will be discussed. Prerequisite: consent of advisor.

BIO 625 Biological Clocks (3.0); 3 cr. The course provides basic knowledge about biological rhythms and their survival value in various organisms, with special focus on mammals. It provides insight into the mechanisms underlying entrainment to environmental stimuli. Functional significance of the circadian pacemaker in relation to some diseases is also considered.

BIO 626 Developmental Neurobiology (2.3); 3 cr. The course provides comprehensive knowledge about development of the vertebrate nervous system, both central and peripheral. It discusses the factors affecting neuroblast migration, differentiation, identification of target tissues and establishment and maintenance of synapses. Neurogenesis of selected brain regions is also considered. Prerequisite: consent of advisor.

BIO 628 Advanced Human Physiology (3.0); 3 cr. The course provides a thorough coverage of the functions of various body systems, whereby physiological mechanisms at various levels of organization (molecular, cellular, tissue and organ system levels) are considered. It also emphasizes the functional integration among the different organ systems and some clinical correlations.

BIO 630 Microbial Biotechnology (2.3); 3cr. This course is designed to introduce students to industrial, medical and environmental biotechnology. It covers food microbiology, microbial bioconversions, industrial microorganisms, and production of enzymes, vitamins, antibiotics, and valuable metabolites. Prerequisite: consent of advisor.

BIO 635 Population and Community Ecology (3.0); 3cr. This course explores population dynamics, distribution and community structure. Emphasis will be placed on population growth and regulation, community stability and diversity, ecological succession, populations' interactions, and coevolution. Prerequisite: consent of advisor.

BIO 636 Plant Ecology (3.3); 4cr. Biotic and abiotic factors controlling plant distribution and plant communities with special emphasis on the Mediterranean biome. Field trips are required in order to emphasize examples from Lebanon.

BIO 637 Insect-Plant Interactions (3.0); 3cr. This course covers the ecology and evolution of insect-plant relationships: plant defense, adaptations to herbivorous insects, pollination biology and applications to managed ecosystems.

BIO 638 Invasive Alien Species (3.0); 3cr. The biology and the impact of invasive alien species on natural ecosystems are discussed. Special emphasis will be placed on invasive alien plants in the Mediterranean biome. Prerequisite: consent of advisor.

BIO 641 Cell Culture Techniques (2.3); 3 cr. This course is designed to teach students the skills of mammalian cell culture, including: maintenance and manipulation of cells from various lines under sterile conditions, cell cloning, somatic cell hybridization and cryopreservation of cells.

BIO 645 Principles of Pharmacology (3.0); 3cr. A study of pharmacokinetics and pharmacodynamics of drugs in relationship to dose and time. The principles of drug action and interaction in different systems of the body will be discussed through representative substances.

BIO 646 Signal Transduction (3.0); 3 cr. The course covers the fundamental biochemical mechanisms involved in cellular signal transduction and regulation. Topics include receptors, secondary messengers, protein kinase function, nuclear transport, protein translocation, intercellular signaling mechanisms.

BIO 650 Cellular and Molecular Immunology (2.3); 3 cr. This course is a detailed study of the cellular and molecular components of the immune system: their production, structure, function and manipulation. It also includes major immunological techniques (e.g. ELISA, monoclonal antibody production, immunohistochemistry, western blot, affinity chromatography...), which are also used in other biological sciences. Prerequisite: consent of advisor.

BIO 660 Selected Topics in Biology; 1, 2, 3, or 4 cr. Oral presentations and in-depth discussions of selected topics in the area of specific competence of the course instructor (or groups of instructors). Course content will emphasize recent advances in the specific topic area. Prerequisite: consent of advisor.

BIO 670 Seminar I; 1 cr. Oral presentations and discussions by students on selected topics in Biology in an area of special interest.

BIO 671 Seminar II; 1 cr. Oral presentations and discussions by students on selected topics in Biology in an area of special interest.

BIO 680 Tutorial I; 2 cr. Individual study or research on a specially selected topic in Biology directed by a faculty member. Prerequisite: graduate standing and consent of the instructor.

BIO 681 Tutorial II; 3 cr. Individual study or research on a specially selected topic in Biology directed by a faculty member. Prerequisite: graduate standing and consent of the instructor.

BIO 691 Master Thesis; 9 cr

MS in Biology Program: Full time faculty members who could serve the program

Name	Field of study	Courses that he/she can teach
Colette Kabrita Bou-Serhal	PhD Biology (Development of Circadian Rhythms) - MS Physiology	BIO 625 (Biological Clocks) BIO 626 (Developmental Neurobiology) BIO 617 (Reproductive Biology) BIO 628 (Advanced Human Physiology) BIO 646 (Signal Transduction) BIO 660, BIO 670, BIO 671, BIO 680, BIO 681
Doris Jaalouk	PhD Cell Biology MS Physiology	BIO 605 (Research Methods in Biology), BIO 610 (Advanced Cell Biology), BIO 611 (Cancer Biology), BIO 628 (Advanced Human Physiology), BIO 646 (Signal Transduction), BIO 641 (Cell Culture Techniques), BIO 660, BIO 670, BIO 671, BIO 680, BIO 681
Robert Dib	PhD Biochemistry MS (DEA) - Cell Biology Maîtrise – Biological Sciences Applied to the Agro-alimentary Field	BIO 608 (Advanced Biochemistry), BIO 609 (Advanced Molecular Biology), BIO 613 (Research Methods in Protein Science), BIO 619 (Plants Secondary Metabolites), BIO 630 (Microbial Biotechnology), BIO 645 (Principles of Pharmacology), BIO 646 (Signal Transduction), BIO 660, BIO 670, BIO 671, BIO 680, BIO 681
Tanos Hage	PhD Horticulture (Plant Biochemistry and Molecular Biology) MS Plant Protection	BIO 605 (Research Methods in Biology), BIO 608 (Advanced Biochemistry), BIO 609 (Advanced Molecular Biology), BIO 619 (Plants Secondary Metabolites), BIO 620 (Plant Genomics and Biotechnology), BIO 630 (Microbial Biotechnology), BIO 635 (Population and Community Ecology), BIO 636 (Plant Ecology), BIO 637 (Insect-Plant Interactions), BIO 638 (Invasive Alien Species), BIO 660, BIO 670, BIO 671, BIO 680, BIO 681