The NDU Gazette

A publication covering decisions taken at the BOD and UC meetings

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DECISIONS

Issue Number Two, June 2011

Faculty of Engineering
ECCE Department Changes

Approved by UC on May 24th, 2011
Approved by BOD on May 4th, 2011

The following proposals are the results of an ongoing continuous improvement process in the ECCE department. These proposals intend to further improve curriculum and make it conform to international standards, especially ABET requirements.
These changes are targeting ECCE students with ID # 2011xxxx and higher and are effective starting Fall 2011. Students with 2010xxxx and lower who would like to benefit from these changes need departmental approval.

Proposal #1:
A) Remove MAT 335, Partial Differential Equations 3 cr., from both EE and CCE curricula
B) Remove MAT 324, Mathematics for Engineers 3 cr., from the EE Curriculum
C) Add MAT 211, Discrete Mathematics 3 cr., as a core course to the EE curriculum
D) Add MAT 339, Numerical Analysis 3 cr., as a core course to the EE and CCE curricula

Proposal #2:
Add two Science Laboratory courses, PHS 271, Electricity and Magnetism Lab, 1cr., and
CHM 271, Principles of Chemistry Laboratory, 1cr, to the EE and CCE programs as core courses

Proposal #3:
A) Remove EEN 371, Practical Training, 3 cr.
B) Add a new required major course EEN 489: Approved Professional Training, 1 cr.

Proposal #4:
Change in the pre-requisites / co-requisites of the following courses:
A) EEN 220 B) EEN 201 and EEN 202
C) EEN 210

Proposal #5:
A) Change the course number of EEN 210
B) Change the course name of EEN 350 and EEN 352

Proposal #1

A) Remove MAT 335, Partial Differential Equations 3 cr., from both EE and CCE curricula
B) Remove MAT 324, Mathematics for Engineers 3 cr., from the EE Curriculum
C) Add MAT 211, Discrete Mathematics 3 cr., as a core course to the EE curriculum
D) Add MAT 339, Numerical Analysis 3 cr., as a core course to the EE and CCE curricula

Rationale
All peer and aspiration ECE undergraduate programs, locally and abroad, have only one required course in differential equations. This course provides the students with the adequate background needed in later engineering courses.
ABET program criteria for electrical, computer and similarly named engineering programs requires these programs to demonstrate that graduates have a knowledge of advanced mathematics, typically including differential equations, linear algebra, and discrete mathematics.
ABET accreditation criteria also state clearly the need for an engineer to be equipped with not only the basic knowledge of mathematics, science, and engineering needed, but also to learn how "to use the techniques, skills, and modern engineering tools necessary for engineering practice".

Today, ECCE graduates use modern mathematical software tools (e.g. MATLAB) to solve engineering problems using advanced numerical techniques, hence the need for MAT 339.
On the other hand, topics needed from MAT 324 are normally covered in various courses: MAT 235, EEN 202, and EEN 340.
Implementation Issues: None

Proposal #2

Add the following two science laboratory courses to the EE and CCE programs as required core courses:

- **PHS 271 (Electricity and magnetism Lab, 1cr), co-requisite PHS 212,**
- **CHM 271 (Principles of Chemistry Laboratory (1cr), prerequisite CHM 211**

Rationale
ABET accreditation criterion #5(a) states clearly the need for an engineering program to include the equivalent of "one year of a combination of college level mathematics and basic sciences (some with experimental experience) appropriate to the discipline". We recommend to include two science laboratory courses in order to meet the ABET requirements and to provide our students with hands-on experience in science subjects.

Implementation Issues: Currently, CHM271 is a GER course (science pool), i.e. an elective course. This may create an implementation problem. To avoid such a problem, we recommend that CHM271 be removed from the GER lists for EE & CCE students.

Proposal #3

A) Remove EEN 371, Practical Training (3cr.) for EE and CCE
B) Add a new required major course EEN 489, Approved Professional Training (1 cr.) for EE and CCE

Rationale
In order to make room for the two science laboratory courses suggested in proposal #3, the department recommends reducing the number of credits allocated to a practical training course from 3 credits to 1 credit. In addition, a new course (EEN 489, described below) must be added to replace the old one. The high number (489) reflects the advanced nature of the course and conforms to the same number in other engineering departments at NDU (ME and CEE) and locally (AUB).

EEN 489: Approved Professional Training (0.0); 1 cr.

A Two-month summer training in an ECCE professional environment in which the student is exposed to different aspects of the profession (Graded on a Pass/Fail basis). *Prerequisite*: Completion of a minimum of 91 credits.

Implementation Issues: None

Proposal #4

A) Make MAT 211 a new pre-requisite to EEN 220, Introduction to Logic Design, and remove the old pre-requisite ENG 202. The MAT 211 content should be compatible with that of other universities. ENG 202 has already changed.

Rationale

To make ENG 202 a pre-requisite to EEN 220, we had to add some topics to ENG 202 such as arithmetic in different bases. However, this topic and others like logic and Boolean algebra, which are important to EEN 220, are integral parts of MAT 211. We could not do this earlier because MAT 211 was required only to CCE students, while EEN 220 is required for both EE and CCE students.
In addition, students will not be able to delay this useful course (MAT 211 is an ABET requirement)

Implementation Issues

ENG 202 content needs to be updated accordingly. Arithmetic in different bases will be replaced by examples on complex variables.
Students who already took ENG 202 or will be taking ENG 202 under the old content may take EEN 220 without MAT 211

B) Change in pre-requisite / co-requisite of EEN 201 and EEN 202: Circuit Analysis I and II.

EEN 201:

Old Status:
Prerequisite: ENG 201, Corequisites: PHS 212 and MAT 235.
New Status:
Co-requisites: MAT 213.

EEN 202:

Old Status:
Prerequisite: EEN 201.
New Status:
Prerequisite: EEN 201, Corequisite MAT 235.

Rationale

ENG 201, PHS 212 and MAT 235 are not really needed for EEN 201.

Implementation Issues: None

C) Change EEN 202, Circuit Analysis II, from a co-requisite to a pre-requisite for EEN 210

Rationale

We have noticed that students who took EEN 202 before EEN 210 are much better prepared and interact more positively in the class. In addition, some topics in EEN 210 assumes previous knowledge of material covered in EEN 202, mainly AC Analysis and Frequency Response. Therefore, in an attempt to better prepare our students we decided to make EEN 202 a pre-requisite to EEN 210, which is in line with similar ECE programs locally and abroad.

Implementation Issues: None

Proposal #5

A) Change the course number of Electronic Circuits I from EEN 210 to EEN 310, keeping course description and title the same

Rationale

The content of Electronic Circuits I course is more advanced than the content of circuit analysis courses (EEN 201 and EEN 202). In addition, the new numbering is in line with similar ECE programs at universities locally (EECE 310 at AUB) and abroad (EEN 3500 at Villanova)

Implementation Issues

For all EE and CCE students

B) 1) Change the course name of EEN 350 from Energy Conversion to Fundamentals of Electric Machines. Also, in the list of pre-requisites of EEN 350, remove EEN 202.

2) Change the course name of EEN 352 from Energy Conversion Laboratory to Electric Machines laboratory

Rationale
The new name truly reflects the content of the course and is in line with similar ECE programs at universities locally and abroad. The old name is normally used in some mechanical engineering courses.

Implementation Issues: For all EE and CCE students
Amendments made according to the UCC recommendation in its meeting of April 27, 2011:

-**Proposal # 4**

D) Adjust catalog courses descriptions as follows:
- In the list of pre-requisites of EEN 340, replace MAT 335 with MAT 235.
- In the list of pre-requisites of EEN 330, replace MAT 335 with MAT 235.
- In the list of pre-requisites of EEN 350, remove EEN 202

The above "adjust catalog course descriptions" according to the changes should not be included in this proposal because when it is approved then the Faculty of Engineering will update the new catalog accordingly.

-**Proposal # 5**

B) 1) Change the course name of EEN 350 from Energy Conversion to Fundamentals of Electric Machines and remove the prerequisite EEN 202.

Faculty of Engineering
Department of CEE

Approved by UC on May 24th, 2011
Approved by BOD on May 11th, 2011

Proposal #1: Remove MEN 210; Thermodynamics, 3 cr.
Rationale: After reviewing the CE Curriculum of many Aspiration Universities such as AUB (Lebanon), Villanova University (PA), Bradley University (IL), and Peer Universities like Gonzaga University (WA) and LAU (Lebanon) (see curricula in the attached appendices), we did not find any course on Thermodynamics. In addition ABET requirements in the Math & Science field are 32 credits. Therefore, a minimum of 11 new credits in Math & Science courses need to be added to the 21 currently offered credits in order to make a first step towards meeting the minimum limit. MEN 210 will be substituted with a Science course.
Old Status: MEN 210 part of the Core Requirements
New Status: MEN 210 deleted from the Core Requirements
Dates of Approval:

a-DCC: 15/03/11
b-FCC: 15/03/11

Proposal #2: PHS 206; Heat, Vibration and Waves, 3 cr. to replace PHS 203 General Physics III.
Rationale: the content PHS 206 is more appropriate to CEE students than the content of PHS 203.
Old Status: PHS 203 part of the Core Requirements
New Status: PHS 206 part of the Core Requirements
Dates of Approval:

a-DCC: 15/03/11
b-FCC: 15/03/11

Proposal #3 CEN 496; Approved Summer Training, 3 cr. to be substituted with a new major course CEN 489; Approved Professional Training, 1 cr.
Rationale: The 3 cr. summer training course is substituted with a 1 cr. summer training course in order to maintain the total number of credits in the CEE program to 150.
Old Status: CEN 496; 3 cr. under Approved Summer training
New Status: CEN 496; Approved summer training deleted
CEN 489*;* Approved Professional Training part of the Major Requirements pool
Dates of Approval:

a-DCC: 15/03/11
b-FCC: 15/03/11

Proposal #4: Add PHS 275; Experimental Physics I, 1 cr.
Rationale: PHS 275 will increase the credits in Math & Science by 1 out of 11 minimum extra credits needed per ABET requirements. Besides, ABET requires the incorporation of basic science laboratory courses. The content in this Lab is beneficial for Civil Engineering students.
Old Status: PHS 275 not part of the Core Requirements
New Status: PHS 275 part of the Core Requirements
Dates of Approval:

a-DCC: 15/03/11
b-FCC: 15/03/11

Proposal #5 Add CHM 271; Principles of Chemistry Laboratory, 1 cr. as a core course.
Rationale: CHM 271 will increase the credits in Math & Science by 1 out of 11 minimum extra credits needed per ABET requirements. Besides, ABET requires the incorporation of basic science laboratory courses. Chemistry experiments are useful for Civil Engineering students in the area of materials and environmental engineering.
Old Status: CHM 271 not part of the Core Requirements pool
New Status: CHM 271 part of the Core Requirements pool
Dates of Approval:

a-DCC: 15/03/11
b-FCC: 15/03/11

Proposal #6 Add MAT 339 Numerical Analysis, 3 cr. as a core course
Rationale: It is a useful course for the CEE students to process data and helps understand numerical analysis. MAT 339 will increase the credits in Math & Science by 3 out of 11 minimum extra credits needed per ABET requirements. Numerical analysis is useful for Civil Engineering students who need to do numerical integration, root finding of non-polynomial equations, etc.
Old Status: MAT 339 not part of the Core Requirements pool
New Status: MAT 339 part of the Core Requirements pool
Dates of Approval:

a-DCC: 15/03/11
b-FCC: 15/03/11

Proposal #7 Remove CEN 440 as one of the two prerequisites for CEN 522.
Rationale: CEN 522; Structural Project, which contains computer applications to structural design, is geared towards concrete structures mainly and not so much steel structures. Concrete is the dominant type of structures in Lebanon.
Old Status: Prerequisites for CEN 522 are: CEN 430, CEN 440.
New Status: Prerequisites for CEN 522 are: CEN 430.
Dates of Approval:

a-DCC: 15/03/11
b-FCC: 15/03/11

In light of the above mentioned proposals, the New CE Degree Requirements become:

GER	**27 cr.**
CORE	**47 cr.**

CHM 211, CHM 271,CSC 212, EEN 205, ENG 201, ENG 202, GEO 201, MAT 213, MAT 215, MAT 224, MAT 235, MAT 326, MAT 339, MEN 201, MEN 320, PHS 206, PHS 275.

Among the above Core Courses, 26 cr. are Math and Science Courses:
CHM 211, CHM 271, MAT 213, MAT 215, MAT 224, MAT 235, MAT 326, MAT 339, PHS 206, PHS 275.

MAJOR	**58 cr.**
SUMMER TRAINING	**1 cr.**
TECHNICAL ELECTIVES	**12 cr.**
FREE ELECTIVES	**5 cr.**

Faculty of Engineering
Department of ME
ME Program Changes – Fall 2010

Approved by UC on May 24th, 2011
Approved by BOD on May 11th, 2011

A major upgrade of the ME undergraduate program has been implemented in fall 2008 and is being applied to ME contract sheets with ID#2008xxxx and beyond. The current proposals are to further improve the program and make it compatible with international standards, especially ABET requirements. The changes are to be applied to ME contract sheets 2011xxx and beyond. Students with earlier ID numbers (2010xxxx and earlier) need department approval in order to shift to the new contract sheet.

Overview:

Proposal #1: Add MAT 339, Numerical Analysis, 3cr, to the ME program as a core course.

Proposal #2: Reduce the number of technical electives to 4 courses (12 credits) instead of 5 courses (15 credits).

Proposal #3: Add two Science Laboratory courses, PHS 2XX, Experimental Physics for Engineers, 1cr, and CHM 271, Principles of Chemistry Laboratory, 1cr, to the ME program as core courses.

Proposal #4: Add a new required major course MEN 489, Approved Professional Training, 1 cr., to replace the existing MEN 380, Practical Training in Mechanical Engineering, 3cr.

Proposal #5: Add the following courses to the pool of technical electives:
MEN 511 Heat Exchangers Design (3.0); 3 cr.
MEN 512 Industrial Refrigeration (3.0); 3 cr.
MEN 516 Piping Networks (3.0); 3 cr.
MEN 518 Renewable Energy Systems (3.0); 3 cr.
MEN 523 Applied Aerodynamics (3.0); 3 cr.
MEN 526 Fundamentals of Gas Turbines (3.0); 3 cr.
MEN 541 Automotive Mechatronics (3.0); 3 cr.

Proposal #6: Remove the following courses from the pool of technical electives:
MEN 500, Energy Principles & Variational Methods in Mechanics, 3cr
MEN 501, Continuum Mechanics, 3cr
MEN 502, Theory of Elasticity, 3cr
MEN 504, Theory of Elastic Stability, 3cr
MEN 505, Theory of Plasticity, 3cr
MEN 590, Mechanical Engineering Software, 3cr

Proposal #7: Update the course number and/or description of the following courses**:**

- MEN 401, Introduction to Mechatronics, 3cr: Change the course description
- MEN 435, Automated Control, 3cr: Change the course description
- MEN 510, Energy Conversion, 3cr: Change the course description

Proposal #1

Consider MAT 339, Numerical Analysis, 3cr, as a required core course instead of a technical elective

Rationale:

ABET accreditation criteria state clearly the need for an engineer to be equipped with not only the basic knowledge of mathematics, science, and engineering needed, but also to learn how "to use the techniques, skills, and modern engineering tools necessary for engineering practice". To that end, three major pools are identified by ABET: mathematics and basic sciences (the minimum of 32 credits or one forth of the credits required for graduation), engineering sciences (minimum of one year and half), and general education requirements.

Furthermore, the mechanical engineering programs must demonstrate that ME graduates have "the ability to: apply principles of engineering, basic science, and mathematics (including multivariate calculus and differential equations) to model, analyze, design, and realize physical systems, components or processes; and work professionally in both thermal and mechanical systems areas". This latter program specific requirement explicitly states the need for a mechanical engineer to be equipped with the tool needed to deal with calculus and differential equations issues. Both subjects are covered in the current ME program at NDU by various courses. One additional step is needed however in order to link the knowledge acquired in those subjects to the practice as stated in the specific requirement above and the ABET general criteria.

Nowadays, the practice of mechanical engineering involves modern tools like software usually used for design purposes. Most of the phenomena tackled in the various mechanical engineering fields are described by differential equations, and to be able to use differential equations in software, the equations have to be transformed using advanced numerical techniques. Therefore, numerical techniques are of prime importance for mechanical engineers when it comes to practice and the corresponding course is MAT339, Numerical Analysis, 3cr.

Currently, MAT 339 is a part of the ME program as a technical elective and most of the students are skipping it for various reasons. Owing to the importance of the topics covered in MAT339 for mechanical engineers, the department would like to change MAT339 from a technical elective status to a core course status. By doing so, all ME students will be required to take the course at an earlier stage in their residency at NDU.

Making the course a required core course will help the department in increasing the number of mathematics/basic science courses to 10 or 30 credits instead of 27 currently. Such a change will contribute to resolving the ABET requirement of 32 credits of math/science courses as stated above.

Implementation Issues: None

Proposal #2

Reduce the number of technical electives to 4 courses (12 credits) instead of 5 courses (15 credits).

Rationale:
The current proposal is closely related to proposal#1. Three required credits are needed to make room for MAT339 as a core course instead of the three optional credits of the same course as a technical elective. By moving MAT339 to the pool of core requirements, the department is somehow freezing three credits from the technical elective pool and the result is 12 credits of technical electives instead of 15 credits. The pool of core requirements become 40 credits instead of 37 credits currently.

Implementation Issues: None

Proposal #3

Add two science laboratory courses, PHS 2XX, Experimental Physics for Engineers[1], 1cr, and CHM 271, Principles of Chemistry Laboratory, 1cr, to the ME program as core courses

[1] A new course for which a proposal has been submitted to the Department of Physics (see attached memo sent on Feb. 24, 2011). A parallel procedure is to be initiated by the Physics Department for approval.

Rationale:
ABET accreditation criterion #5(a) states clearly the need for an engineering program to include the equivalent of "one year of a combination of college level mathematics and basic sciences (some with experimental experience) appropriate to the discipline". According to the "Proposed Harmonized General Criteria for Engineering Programs" of ABET, "One year is the lesser of 32 semester hours (or equivalent) or one-fourth of the total credits required for graduation" and "basic sciences are defined as biological, chemical, and physical sciences". The current ME program does expose the student to a total of 27 credits of science topics with no associated laboratories however. The total number of credits will become 30 credits once proposal#1 is approved (adding MAT339 as a core course). It is recommended to include two science laboratory courses in order to meet the ABET requirements and to expose the students to hands on related to science matters. The laboratory courses to be added are PHS2XX (a new physics laboratory course for which a proposal has been submitted to Physics Department) and CHM271.

Implementation Issues:

- CHM271 is a GER course (science pool) and may create implementation problems if the proposal is approved. To avoid such problems, it is highly recommended that the CHM271 be removed from the GER lists for ME students (or engineering students in general).
- PHS2XX is a new laboratory course that has just been requested form the Physics Department. Like for CHM271, the physics laboratory courses listed under GER-Science requirements (PHS271 and PHS272) are to be removed along with all 1 credit and 2-credit GER-Science courses.
- Students with ID#2008xxxx may choose either to continue on their current contract sheet with 3-credit training course or shift to the new rules once approved and take the two science laboratory courses listed above with the new 1-credit training course.

Proposal #4

Add a new required major course MEN 489, Approved Professional Training, 1 cr, to replace the existing MEN 380, Practical Training in Mechanical Engineering, 3cr.

Rationale:
In order to make room for science laboratory courses suggested in proposal#3, the department recommends reducing the number of credits allocated to practical training in mechanical engineering, to one credit from the current three credits. As a result the following new course, MEN 489, Approved Professional Training, 1 cr., is to replace the existing MEN 380 in all ME contract sheets with ID#2009xxxx and beyond. Like for its counterpart, the new course is to be graded on a Pass/Fail basis.

MEN 489 Approved Professional Training (0.0); 1cr. Two-month-training in a mechanical engineering environment in which the student is exposed to different aspects of mechanical engineering practice and equipment: design, construction, testing, maintenance, etc. *Prerequisite*: Senior standing.

Implementation Issues: See proposal #3.

Proposal #5

Add the following courses to the pool of technical electives

MEN 511 Heat Exchangers Design (3.0); 3 cr.
MEN 512 Industrial Refrigeration (3.0); 3 cr.
MEN 516 Piping Networks (3.0); 3 cr.
MEN 518 Renewable Energy Systems (3.0); 3 cr.
MEN 523 Applied Aerodynamics (3.0); 3 cr.

MEN 526 Fundamentals of Gas Turbines (3.0); 3 cr.
MEN 541 Automotive Mechatronics (3.0); 3 cr.

Rationale:
The following courses are to be added to the pool of technical electives. All courses are of practical nature and will add a non negligible value to the list of technical electives offered by the department. The main objective is to reflect market needs.
The course descriptions and requirements are as follows:
MEN 511 Heat Exchangers (3.0); 3 cr. Fundamentals of heat exchangers design: Types and selection of heat exchangers, Thermal design of heat exchangers; Mechanical design of heat exchangers. *Prerequisites:* MEN302, MEN 310

MEN 512 Industrial Refrigeration (3.0); 3 cr. Fundamentals of refrigeration systems; Refrigeration cycles; Design and selection of components; Cold storage facilities. *Prerequisite:* MEN 310

MEN 516 Piping Networks (3.0); 3 cr. Design of piping netowrks with emphasis on water distribution systems in buildings: plumbing systems, fire-figthting systems, hot and cold water distribution; Codes and standards. *Prerequisite:* MEN 321

MEN 518 Renewable Energy Systems (3.0); 3 cr. Renewable energy resources and systems: Solar energy, wind energy, geothermal energy, biomass, etc. Applications in buildings and power generation. *Prerequisite:* MEN 310

MEN 523 Applied Aerodynamics (3.0); 3 cr. Fundamental concepts of aerodynamics and their application to the design of airplanes, automobiles and racing cars. Steady/unsteady, incompressible/compressible, inviscid/viscous fluid flows over airplane wings, airplanes and automotive bodies. *Prerequisite:* MEN 321.

MEN 526 Fundamentals of Gas Turbines (3.0); 3 cr. Types of gas turbines; Design and selection of components: Compressors, Combustion Chambers, Turbines, Diffusers/Nozzles; Systems for stationary, automotive and aircraft applications. *Prerequisite:* MEN 310

MEN 541 Automotive Mechatronics (3.0); 3 cr. Fundamentals of automotive mechatronics; Overview of sensors and actuators used in motor vehicles; Communication protocols and control systems. *Prerequisite:* MEN 401.

Implementation Issues: None.

Proposal #6

Remove the following courses from the pool of technical electives

MEN 500, Energy Principles & Variational Methods in Mechanics, 3cr
MEN 501, Continuum Mechanics, 3cr
MEN 502, Theory of Elasticity, 3cr
MEN 504, Theory of Elastic Stability, 3cr
MEN 505, Theory of Plasticity, 3cr
MEN 590, Mechanical Engineering Software, 3cr

Rationale:
The above listed elective courses are of very advanced nature and were never offered since their establishment in 2003. They are more of research oriented courses to be offered at graduate levels. The courses will be shifted, with slight modification, to the graduate program under preparation.

Implementation Issues: None

Proposal #7

Update the course number and description of the following courses

- **MEN 401, Introduction to Mechatronics, 3cr: Change course description to** "Interfacing of mechanical and electrical systems; Analysis of smart systems: sensors and transducers, electronics and logics, microprocessors and programmable logic controllers, data acquisition, and actuators; Integration of these components to create a complete functional mechatronics system". **Pre-requisites remain unchanged.**
- **MEN 435, Automated Control, 3cr: Change course description to** "Feedback analysis and control of linear systems, with emphasis on linear system dynamics, time and frequency response, stability analysis, classical control theory, and controller design for Mechanical Engineering applications". **Pre-requisites remain unchanged.**
- **MEN 510, Energy Conversion, 3cr: Change course description to "**Fundamentals of energy conversion: thermal powerplants, nuclear and fossil fuels, etc.; Energy resources; Energy conservation and recovery; Energy Storage; Pollution and environmental issues**". Pre-requisite remains unchanged.**

Rationales:

Continuous monitoring and upgrade of the content of all MEN courses require regular upgrade of their requirements.

1) **MEN 401**: The existing course description contains topics that will be included in the Control and Mechatronics Lab (microprocessors). The new description focuses on the hands-on nature of the course through designing and building a complete working Mechatronics system.
2) **MEN 435**: Control modes and digital control are of advanced nature and were removed from the description to be included in an advanced control course at the graduate level. The new description adds emphasis on the design of controllers for various Mechanical Engineering applications.
3) **MEN 510**: The course description includes many heavy topics and only few of them are currently covered in class. All the topics are of prime importance and are to be covered in a way or another. The department is planning to open courses related to all the areas of energy including traditional and renewable energy systems. The basic issues are to be covered in MEN510 and the others are to be bundled in different elective courses, one of them has already been suggested in Proposal#5. Therefore, the department recommends that the scope of MEN 510 be narrowed to meet the practice. Accordingly, the new course description becomes as given.

Implementation Issues: None

List of Textbooks for New Courses:

MEN 511 Heat Exchangers (3.0); 3 cr. Fundamentals of heat exchangers design: Types and selection of heat exchangers, Thermal design of heat exchangers; Mechanical design of heat exchangers. *Prerequisites:* MEN302, MEN 310

Textbook: R.K. Shah, D.P. Sekulic, *Fundamentals of Heat Exchangers Design*, Wiley, 2003.

MEN 512 Industrial Refrigeration (3.0); 3 cr. Fundamentals of refrigeration systems; Refrigeration cycles; Design and selection of components; Cold storage facilities. *Prerequisite:* MEN 310

Textbook: I. Dincer, M. Kanoglu, *Refrigeration Systems and Applications*, Wiley, 2010.

MEN 516 Piping Networks (3.0); 3 cr. Design of piping netowrks with emphasis on water distribution systems in buildings: plumbing systems, fire-figthting systems, hot and cold water distribution; Codes and standards. *Prerequisite:* MEN 321

Textbook: S. Mennon, *Piping Calculations Manual*, McGraw-Hill, 2004.

MEN 518 Renewable Energy Systems (3.0); 3 cr. Renewable energy resources and systems: Solar energy, wind energy, geothermal energy, biomass, etc. Applications in buildings and power generation. *Prerequisite:* MEN 310

Textbook: B. Sorensen, *Renewable Energy Conversion, Transmission and Storage*, Academic Press, 2007.

MEN 523 Applied Aerodynamics (3.0); 3 cr. Fundamental concepts of aerodynamics and their application to the design of airplanes, automobiles and racing cars. Steady/unsteady, incompressible/compressible, inviscid/viscous fluid flows over airplane wings, airplanes and automotive bodies. *Prerequisite:* MEN 321.

Textbook: E.L. Houghton, P.W. Carpenter, *Aerodynamics for Engineering Students*, Elsevier, 2003.

MEN 526 Fundamentals of Gas Turbines (3.0); 3 cr. Types of gas turbines; Design and selection of components: Compressors, Combustion Chambers, Turbines, Diffusers/Nozzles; Systems for stationary, automotive and aircraft applications. *Prerequisite:* MEN 310

Textbook: H. I. H. Saravanamuttoo, G. F. C. Rogers, H. Cohen, *Gas Turbine Theory*, Prentice Hall, 2008.

MEN 541 Automotive Mechatronics (3.0); 3 cr. Fundamentals of automotive mechatronics; Overview of sensors and actuators used in motor vehicles; Communication protocols and control systems. *Prerequisite:* MEN 401.

Textbook: W. Ribbens, *Understanding Automotive Electronics*, Elsevier, 2002.

Faculty of Humanities - DETE
Introduction to Italian - ITL 101

Approved by the UC on May. 24th, 2011
Approved by the BOD on Dec. 21, 2010

Rationale: Freshman students entering our program at NDU are given the opportunity to take up to 15 credits of elective courses. They may take 9 credits in the Humanities and Social Sciences. The Faculty of Humanities has already added SPA and FRC to the repertoire of courses that are offered to the students. Freshmen who have taken ITL 101 would be eligible to take ITL 202 in their Sophomore studies, thus ITL serves the same prerequisite function of ITL 201 for students who have taken ITL 101 in their Freshman year.

Course Description
ITL 101 Introduction to Italian (3.0); 3 cr. This course introduces the students to basic spoken and written Italian. Students will practice conversation on subjects of daily interest. They will read and write at the elementary level. For Freshman students only.
Suggested Textbook:
Michel Thomas Method Italian For Beginners, 10-CD Program by Michel Thomas (Audio CD - Apr 27, 2009)
Italian for Beginners (Languages for Beginners) by Angela Wilkes and John Shackell (Paperback - Aug 31, 2001)
Colloquial Italian: The Complete Course for Beginners by Sylvia Lymbery (Kindle Edition - Feb 24, 2009) - Kindle eBook

Applicable as of October 1st, 2011.

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Faculty of Humanities - DETE
Teaching Diploma in Computer Science

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

Rationale
NDU already offers degrees in Computer Science as well as Computer Engineering. Holders of Computer Science degrees may often teach in schools for a period of time. A teaching diploma would allow candidates to be remunerated at a higher rate than if they had the degree only. In addition, a teaching diploma gives the candidate the necessary skills to succeed in the classroom.
Credits Required: 21 credits over and above the total number required for the degree

Eligibility
A student is eligible to take a teaching diploma if he or she is in the process of completing a degree in computer science or CCE, or if the student already holds a computer related undergraduate degree.

Required Courses
EDU 201: Introduction to Education
EDU 313: Psychology of Education: Learning
EDU 343: Classroom Management OR EDU 330: Curriculum Development and Evaluation
EDU 358: Methods of Teaching Computer Science
EDU 435: Tests, Measurement and Evaluation in Computer Science
EDU 469: Computer Science Teaching Practicum I
EDU 479: Computer Science Teaching Practicum II

New Courses

EDU 358: Methods of Teaching Computer Science (3.0); 3 cr. The main purpose of this course is to provide students with pedagogical and content knowledge and experiences to be effective computer science teachers in schools. This course will enable students to implement a variety of methods in the teaching process, including meaningful learning, collaborative learning, inquiry learning.

Tentative Textbook and Reading Materials:

- Reflections on the Teaching of Programming, Jens Bennedsen, Michael Caspersen, and Michael Kolling, Springer Verlag, LNCS 4821, 2008.
- Computer Science Unplugged, Tim Bell, Ian Witten, and Mike Fellows, 2006. Available at http://www.csunplugged.org/.
- Selected papers from the proceedings of the annual ACM Technical Symposium on Computer Science Education, http://www.sigcse.org

EDU 435 Tests, Measurements and Evaluation in Computer Science (3.0); 3cr. Critically examines the basic principles and techniques of testing and evaluation in computer science. Students will prepare and carry out sample exams in association with practicing teachers.
Learning to Learn: A Guide to Becoming Information Literate in the 21st Century by Ann Marlow Riedling (Paperback -2006)

Electronic Expectations: Science Journals on the Web (Science & Technology Libraries,) by Tony Stankus (Paperback 2000)

Guiding Students into Information Literacy: Strategies for Teachers and Teacher-Librarians - Kindle Edition - Kindle Book by Chris Carlson (2008).

Kubiszyn, T., & Borich, G. (2010). *Educational testing and measurement: Classroom application and practice (9th ed.).* New York: Wiley.
How students measure up: an assessment instrument for introductory computer science, Adrienne Decker, A dissertation submitted to the Faculty of the Graduate School of The State University of New York at Buffalo In partial fulfillment of the requirements for the degree of Doctor of Philosophy, Department of Computer Science and Engineering. URL: http://www.cse.buffalo.edu/tech-reports/2007-06.pdf

(Please note that this study applies to introductory university courses not schools and can be used for the supplementary reading list.).

EDU 469 Computer Science Teaching Practicum I (1.4); 3 cr. Students observe computer classes, teach short classes and complete a journal of teaching methodology on site in schools with the guidance of a practicing teacher.

EDU 479 Computer Science Teaching Practicum II (1.4); 3 cr. Guided and supervised practice in the application of computer science teaching. Pre-services student teachers are video-taped as they teach and review their teaching with practicing teachers; students must teach full class sessions by the end of the practicum.

N.B: NDU students may elect to begin their Teaching Diploma parallel to their degree program. T.D. courses are offered during Summer Session as well as Fall and Spring semesters.

Faculty of Humanities - DETE - Minor in PES

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

Rationale

The DETE currently offers a BA in Physical Education and Sports as well as a Teaching Diploma in the same field. A minor in PES offers students a basic understanding of major concepts in PES through classroom and field courses. PES is a domain which brings together sport science courses as well as courses whose objective it is to encourage physical fitness and wellness in others.

Many students have voiced their interest in PES; after meeting with the PES advisor and instructors, the DETE proposes a minor program in physical education and sports at NDU.

Curriculum Requirements

Students enrolled in the Physical Education Minor must complete **15 credits** of PES courses as follows:

PES 204 Foundations of Physical Education (3.0); 3 cr.
PES 321 Physical Exercise (2.0); 2 cr.
One 3-credit course
PES 301 Anatomical Kinesiology (3.0); 3 cr.
OR
PES 358 Physiology of Exercise (3.0); 3 cr.

One 3-credit course
PES 421 Coaching (3.0); 3cr.
OR
PES 422 Biomechanics (3.0); 3 cr.

One course from the pool of courses (individual sports) (2.0); 2 cr.

PES 333 Swimming I; PES 322 Dancing; PES 335 Track and Field I; PES 336 Track and Field II; PES 337 Track and Field III; PES 329 Tennis; PES 330 Badminton; PES 331 Table Tennis; PES 332 Weight-lifting; PES 338 Combat Sports I; PES 339 Combat Sports II; PES 340 Gymnastics I

AND

One course from a pool of courses (team sports) (2.0); 2 cr.

PES 326 Basketball; PES 327 Volleyball; PES 328 Football; PES 347 Handball

Course Descriptions

PES 204 Foundations of Physical Education (3.0); 3 cr. This course examines the historical, philosophical and sociological foundations of sport and serves as an introduction to the physical education, exercise and sport-related fields. The course will also incorporate contemporary trends and issues. This course should be taken during the first academic year.

PES 301 Anatomical Kinesiology (3.0); 3 cr. An understanding of human anatomy and basic mechanical principles related to efficient movement.

PES 321 Physical Exercise (2.0); 2 cr. (Aerobics, stretching etc.) basic skills, rules, training—theory and practice.

PES 358 Physiology of Exercise (3.0); 3 cr. Physiological changes that occur as a result of exercise and work.

PES 421 Coaching (3.0); 3cr. Leadership, supervision, democracy and behavior in sports; also methods of coaching.

PES 422 Biomechanics (3.0); 3 cr. Improved teaching/coaching through biomechanical and anatomical analyses of sports and related activities.

Faculty of Humanities - DETE
BA Education—Basic Education

Approved by the UC on May 24th , 2011
Approved by the BOD on May 18th , 2011

Introduction
In reference to Decree number 35/50/2010, (dated July 25th, 2010) which allowed NDU to offer a B.A. in Education (Basic Education and Teaching Diploma) for 120 credits, the DETE has a BA program—Basic Education, incorporating the Teaching Diploma requirements.

Rationale
The current BA program in Education at NDU prepares educators in general. The proposed BA in Education—Basic Education focuses on preparing elementary school teachers to confront the issues of basic education.

Suggested Program:
Options: Since the official decree recognizes two separate degrees (BA—Basic Education 99 credits and TD 21 credits) this proposal has included three different options to cater for student needs as follows:

- **Option 1**: for students who plan on a teaching career in basic education (120 credits)
- **Option 2**: for students who wish to acquire a BA in basic education without a teaching diploma (99 credits)
- **Option 3**: for students who have obtained the 99-credit BA in basic education and wish to acquire a TD (21 credits)

  Students are required to declare their choice of option by the end of their sophomore year.

Option 1: for students who plan on a teaching career in basic education (120 credits)
BA Education—Basic Education (99 credits) + Teaching Diploma (21 credits)
General Education Requirements 33 credits as per NDU catalog
NOTE: Courses in italics are to be counted towards the Teaching Diploma.

Core Requirements 33 credits + 21 credits TD = 54 credits

Elementary	CR
EDU 201 Introduction to Education	3
EDU 213 Human Growth and Development	3
EDU 301 Introduction to Arts Ed.	3
EDU 303 Introduction to the Education of Students with Learning Disabilities*	3
EDU 311 Children's Literature	3
EDU 313 Psychology of Education	3
EDU 340 Teaching Reading Skills*	3
EDU 343 Classroom Management	3
EDU 350 Methods of Teaching	3
EDU 360 Instructional Technology	3
EDU 361 Applications of Computers in Teaching	3
EDU 362 Ed and the Lebanese Law	3
EDU 401 Intercultural Communication	3
EDU 420 Crisis Intervention	3
EDU 430 Tests, Measurement and Evaluation	3

EDU 460 Teaching Practicum I	3
EDU 470 Teaching Practicum II	3
ENL 311 English Phonetics	3

***** New Course

Note: ENL 311 requires ENL 301 as a co-requisite course. This may be waived for the education majors.

Major Requirements 18 credits

Elementary		**CR**
EDU 330 Curriculum Development & Evaluation: Elementary		3
Track 1	**Track 2**	
EDU 351 Methods of Teaching: English EDU 354 Methods of Teaching: Social Studies	EDU 352 Methods of Teaching: Mathematics EDU 353 Methods of Teaching: Sciences	3 3
EDU 431 Tests, Measurement & Evaluation: English EDU 434 Tests, Measurement & Evaluation: Social Studies	EDU 432 Tests, Measurement & Evaluation: Mathematics EDU 433 Tests, Measurement & Evaluation: Sciences	3 3
EDU 480 Elementary Teaching Internship		1
EDU 481 Teaching Internship: English EDU 484 Teaching Internship: Social Studies	EDU 482 Teaching Internship: Mathematics EDU 483 Teaching Internship: Sciences	1 1

Major Electives 9 credits

Three courses from the pool:

ELEMENTARY	**CR**
EDU 321 Education and the Media	3
EDU 322 Education of the Talented and Gifted	3
EDU 342 Instructional Strategies for the Disabled	3
EDU 344 School Libraries	3
EDU 412 Gender and Human Interaction	3
EDU 413 Early Childhood General Health, Nutrition and Safety	3
EDU 422 Learning and Behavioral Difficulties	3
ENL 322 Language and Culture	3
MUE 335 Music Education	3
MUE 446 Teaching Music at the Elementary Level	3

Free Electives 6 credits

Option 2: for students who wish to acquire a BA in basic education (99 credits)

BA Education—Basic Education (99 credits)

General Education Requirements 33 credits as per NDU catalog

Core Requirements 33 credits

Elementary	**CR**
EDU 201 Introduction to Education	3

EDU 301 Introduction to Arts Ed.	3
EDU 303 Introduction to the Education of Students with Learning Disabilities*	3
EDU 313 Psychology of Education	3
EDU 340 Teaching Reading Skills*	3
EDU 342 Instructional Strategies for the Disabled	3
EDU 343 Classroom Management	3
EDU 350 Methods of Teaching	3
EDU 361 Applications of Computers in Teaching	3
EDU 362 Ed and the Lebanese Law	3
EDU 430 Tests, Measurement and Evaluation	3

***** New Course

Major Requirements 18 credits

Elementary		**CR**
EDU 330 Curriculum Development & Evaluation: Elementary		3
Track 1	**Track 2**	
EDU 351 Methods of Teaching: English	EDU 352 Methods of Teaching: Mathematics	3
EDU 354 Methods of Teaching: Social Studies	EDU 353 Methods of Teaching: Sciences	3
EDU 431 Tests, Measurement & Evaluation: English	EDU 432 Tests, Measurement & Evaluation: Mathematics	3
EDU 434 Tests, Measurement & Evaluation: Social Studies	EDU 433 Tests, Measurement & Evaluation: Sciences	3
EDU 480 Elementary Teaching Internship		1
EDU 481 Teaching Internship: English	EDU 482 Teaching Internship: Mathematics	1
EDU 484 Teaching Internship: Social Studies	EDU 483 Teaching Internship: Sciences	1

Major Electives 9 credits

Three courses from the pool:

ELEMENTARY	**CR**
EDU 321 Education and the Media	3
EDU 322 Education of the Talented and Gifted	3
EDU 344 School Libraries	3
EDU 412 Gender and Human Interaction	3
EDU 422 Learning and Behavioral Difficulties	3
ENL 322 Language and Culture	3

Free Electives 6 credits

Option 3: for students who have obtained the 99-credit BA in basic education and wish to acquire a TD (21 credits)

TEACHING DIPLOMA (21 CREDITS)

ELEMENTARY	**CR**
EDU 213 Human Growth and Development	3

EDU 311	Children's Literature	3
EDU 360	Instructional Technology	3
EDU 401	Intercultural Communication	3
EDU 420	Crisis Intervention	3
EDU 460	Teaching Practicum I	3
EDU 470	Teaching Practicum II	3

Rationale for introducing two new courses

In order to implement the Basic Education BA, two new courses must be introduced. The BA in Basic Education forms teachers who are able to teach elementary school.

Introduction to the Education of Students with Learning Disabilities. Elementary school teachers are often faced with large classrooms of up to 36 students. Most of these classrooms are inclusive classrooms in that students with learning difficulties are not offered special classes or IEPs or differentiated instruction. The teacher must be able to identify areas of difficulty in those students. Thus, teachers must be trained in this domain.

Teaching Reading Skills. One of the main areas of competence required of elementary school teachers is the ability to facilitate the learning of reading. In our previous program, this skill was touched on in several courses; best practice requires that at least one course be devoted to teaching students how to read.

Course Descriptions

EDU 303 Introduction to the Education of Students with Learning Disabilities (3.0); 3 cr.

This course introduces the student to the indicators of learning disabilities and the means of diagnosing children with learning disabilities. Methods of teaching students with learning disabilities will be practiced. Strategies to include students with disabilities in mainstream elementary classrooms will also be examined. Observation of inclusive classrooms will be required. Co-requisite: EDU 201.

Suggested Textbooks:

Graham, Steven and Karen R. Harris, *Writing Better: Effective Strategies for Teaching Students with Learning Difficulties*, 2005.

Martin, Lucy C. , *Strategies for Teaching Students with Learning Disabilities*. 2008.

O'Connor, Rollanda E. , *Teaching Word Recognition: Effective Strategies for Students with Learning Difficulties (What Works for Special-Needs Learners)*, 2006.

All these paperbacks are available from Amazon.com.

EDU 340 Teaching Reading Skills (3.0); 3 cr.

This course focuses on the current philosophies and teaching approaches used to teach reading in the elementary school. Phonemic awareness, phonics instruction, vocabulary development, fluency and comprehension will be emphasized as they are considered critical elements in the development of literacy. Students will also explore the methods of teaching reading of English to students from a bi-lingual or tri-lingual background. Co-requisite EDU 201.

Suggested Textbooks and Supplementary readings

Berge, Bette, Melody Bradbur, and Ron Bradbur, *Teaching Reading Strategies in the Primary Grades (Grades K-3)*, 2003.

Hedgcock, John and Ferris, Dana, ***Teaching Readers of English: Students, Texts, and Contexts,* 2009**.

Lipson, Marjorie Y**.,** ***Teaching Reading Beyond the Primary Grades,* 2007**.

Nuttall, Christine E., ***Teaching reading skills in a foreign language,* 2005**.

Pinnell, Gay Su and Fountas, Irene C., ***Phonics Lessons, Grade 1,* 2003.**

Pinnell, Gay Su and Fountas, Irene C., ***Phonics Lessons, Grade 2,* 2003.**

Robb, Laura, ***Teaching Reading in Social Studies, Science, and Math,* 2003.**

Bachelor of Arts in Education—Basic Education with Teaching Diploma
Suggested Program (120 credits)

Fall Semester I (15 credits)

----	----	GER	3 cr.
----	----	GER	3 cr.
----	----	GER	3 cr.
EDU	201	Introduction to Education	3 cr.
EDU	213	Human Growth and Development	3 cr.

Spring Semester I (15 credits)

----	----	GER	3 cr.
----	----	GER	3 cr.
EDU	313	Psychology of Education	3 cr.
EDU	350	Methods of Teaching	3 cr.
EDU	362	Education and the Lebanese Law	3 cr.

Summer Session I (6 credits)

----	----	GER	3 cr.
----	----	GER	3 cr.

Fall Semester II (15 credits)

EDU	301	Introduction to Arts Education	3 cr.
EDU	303	Introduction to the Education of Students with Learning Disabilities	3 cr.
EDU	340	Teaching Reading Skills	3 cr.
EDU	35x	Methods of Teaching Track Course 1 (351 or 352)	3 cr.
ENL	311	English Phonetics	3 cr.

Spring Semester II (16 credits)

EDU	311	Children's Literature	3 cr.
EDU	343	Classroom Management	3 cr.
EDU	430	Tests, Measurement and Evaluation	3 cr.
EDU	480	Elementary Teaching Internship	1 cr.
----	----	Free Elective	3 cr.

Summer Session II (6 credits)

----	----	GER	3 cr.
----	----	GER	3 cr.

Fall Semester (16 credits)

EDU	35x	Methods of Teaching Track Course 2 (353 or 354)	3 cr.
EDU	360	Instructional Technology	3 cr.
EDU	420	Crisis Intervention	3 cr.
EDU	43x	Tests, Measurement and Evaluation Track Course 1 (431 or 432)	3 cr.
EDU	48x	Teaching Internship Track Course 1 (481 or 482)	1 cr.
EDU	----	Major Elective	3 cr.

Spring Semester III (16 credits)

EDU	401	Intercultural Communication	3 cr.
EDU	43x	Tests, Measurement and Evaluation Track Course 2 (433 or 434)	3 cr.
EDU	460	Teaching Practicum I	3 cr.
EDU	48x	Teaching Internship Track Course 2 (483 or 484)	1 cr.
EDU	----	Major Elective	3 cr.
----	----	GER	3 cr.

Fall Semester IV (15 credits)

EDU	361	Applications of Computers in Teaching	3 cr.
EDU	470	Teaching Practicum II	3 cr.
EDU	----	Major Elective	3 cr.
----	----	GER	3 cr.
----	----	Free Elective	3 cr.

Course Descriptions

EDU 201 ***Introduction to Education*** (3.0); 3 cr. Introduces the history and philosophy of education, structure and components of the school, and the role of the teacher.

EDU 213 ***Human Growth and Development*** (3.0); 3 cr. Introduces students to the field of developmental psychology and its influence on education. Corequisite: EDU 201.

EDU 301 ***Introduction to Arts Education*** (3.0); 3 cr. Involves both a practical and a theoretical approach to dance, music and visual art in the community. Corequisite: EDU 201.

EDU 303 Introduction to the Education of Students with Learning Disabilities (3.0); 3 cr. This course introduces the student to the indicators of learning disabilities and the means of diagnosing children with learning disabilities. Methods of teaching students with learning disabilities will be practiced. Strategies to include students with disabilities in mainstream elementary classrooms will also be examined. Observation of inclusive classrooms will be required. Co-requisite: EDU 201.

EDU 311 ***Children's Literature*** (3.0); 3 cr. Introduces criteria for selection of children's literature, children's reading interests and preparation of materials. Corequisite: EDU 201.

EDU 313 ***Psychology of Education: Learning*** (3.0); 3 cr. Learning and its relation to growth and development. Surveys the theories of learning and their pedagogical implications. Corequisite: EDU 201.

EDU 321 ***Education and the Media*** (3.0); 3 cr. Examines and interprets the role that the press, radio, film, television and advertising play in developmental attitudes and behavior. Corequisite: EDU 313

EDU 322 ***Education of Talented and Gifted Students*** (3.0); 3 cr. Offers theoretical background and practical concerns for educating exceptionally able students. Corequisite: EDU 313.

EDU 330 ***Curriculum Development and Evaluation: Elementary*** (3.0); 3 cr. Examines basic elements and foundations of a curriculum. Emphasis is on the elementary level. Corequisite: EDU 313.

EDU 340 Teaching Reading Skills (3.0); 3 cr. This course focuses on the current philosophies and teaching approaches used to teach reading in the elementary school. Phonemic awareness, phonics instruction, vocabulary development, fluency and comprehension will be emphasized as they are considered critical elements in the development of literacy. Students will also explore the methods of teaching reading of English to students from a bi-lingual or tri-lingual background. Co-requisite EDU 201.

EDU 342 ***Instructional Strategies for the Disabled*** (3.0); 3 cr. Provides techniques for teaching the disabled, such as basic stimulus control, positioning, eating, toileting, etc. Corequisite: EDU 313.

EDU 343 ***Classroom Management*** (3.0); 3 cr. Examines the role of the teacher in a classroom situation: teacher-student interaction and variations in class activities. Corequisite: EDU 201.

EDU 344 ***School Libraries*** (3.0); 3 cr. Introduces library skills and provides students with ideas related to the structuring and enrichment of library material. Corequisite: EDU 201.

EDU 350 ***Methods of Teaching: Elementary*** (3.0); 3 cr. Provides principles and techniques of language, arithmetic, and science teaching in the elementary classes. Corequisite: EDU 313.

EDU 351 ***Methods of Teaching English as Foreign Language*** (3.0); 3 cr. Same as EDU 350 but focuses on the teaching of the four language skills at various learning stages. Corequisite: EDU 313.

EDU 352 ***Methods of Teaching Mathematics*** (3.0); 3 cr. Examines methods of teaching mathematics: educational objectives, mathematical logic and teaching aids. Corequisite: EDU 313.

EDU 353 ***Methods of Teaching Science*** (3.0); 3 cr. Examines methods of teaching science: educational objectives, basic concepts, lab skills and teaching aids. Corequisite: EDU 313.

EDU 354 ***Methods of Teaching Social Studies*** (3.0); 3 cr. Deals with different approaches to teaching history, geography and civics. Corequisite: EDU 313.

EDU 360 ***Instructional Technology*** (3.0); 3 cr. The practical application of audio-visual materials, the operation and maintenance of equipment, and the construction of aids.
EDU 361 ***Applications of Computers in Teaching*** (3.0); 3 cr. The implications of computer application in the classroom. Students will learn software evaluation skills.
EDU 362 ***Education and the Lebanese Law*** (3.0); 3 cr. Studies the various laws in the Lebanese Constitution that determine the educational process in Lebanon.
EDU 401 ***Intercultural Communication*** (3.0); 3 cr. Introduces the comparative study of communication variables that influence interaction between persons of different social groups.
EDU 412 ***Gender and Human Interaction*** (3.0); 3 cr. Examines gender and communication and the relationship of gender to self-disclosure, self assertion, listening and empathy.
EDU 413 ***Early Childhood General Health, Nutrition and Safety*** (3.0); 3 cr. Investigates effective techniques for dealing with health, safety and nutrition in early childhood education.
EDU 420 ***Crisis Intervention*** (3.0); 3 cr. Examines the crisis intervention services in community health, mental health, substances misuse, and child welfare.
EDU 422 ***Learning and Behavioral Difficulties*** (3.0); 3 cr. Presents adaptive teaching/learning procedures. Also prescribes instructional strategies and techniques.
EDU 430 ***Tests, Measurement and Evaluation: Elementary*** (3.0); 3 cr. Critically examines the basic principles and techniques of testing and evaluation on the elementary level. Corequisite: EDU 350.
EDU 431 ***Tests, Measurement and Evaluation in English*** (3.0); 3 cr. A critical examination of the basic principles and techniques of testing and evaluation in English. Corequisite: EDU 351.
EDU 432 ***Tests, Measurement and Evaluation in Mathematics*** (3.0); 3 cr. Same as EDU 431 but relates to the testing of mathematics. Corequisite: EDU 352.
EDU 433 ***Tests, Measurement and Evaluation in Science*** (3.0); 3 cr. Same as EDU 431 but relates to the testing of science subjects. Corequisite: EDU 353.
EDU 434 ***Tests, Measurement and Evaluation in Social Studies*** (3.0); 3 cr. Same as EDU 431 but relates to the testing of social studies. Corequisite: EDU 354.
EDU 460 ***Elementary Teaching Practicum I*** (1.2); 3 cr. Guided and supervised practice in the application of elementary level teaching methods. Part I. Corequisite: EDU 430.
EDU 470 ***Elementary Teaching Practicum II*** (1.2); 3 cr. Similar to EDU 460. Part II. Corequisite: EDU 460.
EDU 480 ***Elementary Teaching Internship*** (1.0); 1 cr. The student will choose a pedagogical issue, discuss its treatment/application in schools and present a written report.
EDU 481 ***English Teaching Internship*** (1.0); 1 cr. Same as EDU 480 but with emphasis on the teaching of English as a foreign language.
EDU 482 ***Mathematics Teaching Internship*** (1.0); 1 cr. Same as EDU 480 but with emphasis on the teaching of mathematics.
EDU 483 ***Science Teaching Internship*** (1.0); 1 cr. Same as EDU 480 but with emphasis on the teaching of science subjects.
EDU 484 ***Social Studies Teaching Internship*** (1.0); 1 cr. Same as EDU 480 but with emphasis on the teaching of social studies.
ENL 311 ***Phonetics*** (3.0); 3 cr. Study of articulatory phonetics with emphasis on English sound systems. Practice in phonetic transcription. Corequisite: ENL 301.
ENL 322 ***Language and Culture*** (3.0); 3 cr. A study of cultural matter i.e. customs, traditions, ways of thinking, taboos, etc. which influence 'meaning' in language use.
MUE 335 ***Music Education*** (3.0); 3 cr. A survey of the various musical education methods, such as the Orff, Dalcroze, Kodaly, Suzuki and other methods.
MUE 446 ***Teaching Music at the Elementary Level*** (3.0); 3 cr. Writing lesson plans appropriate to the elementary level and applying them. Learning teaching methods suitable for the age group (6-11).

Faculty of Humanities - DMC
Modifications in BA Journalism

Approved by the UC on May 24th, 2011
Approved by the BOD on May 18th , 2011

Following please find the curriculum changes in the "Journalism" sequence in our program as approved by the Department, Faculty, University Curriculum Committees and BOD.

Rationale

Many journalism educators and administrators all over the world are now "rethinking" their journalism curricula at various universities. Some of these universities are calling for drastic changes within their journalism programs and some others (at Columbia University, for instance) have sought the opinions and the recommendations of advisory boards that represent the media industries, civic societies and even citizen groups in their particular environments and cities on this particular matter. One thing that all universities and colleges seem to agree upon is the need for making the necessary changes in light of the technological, cultural, political, economic, and social changes that are taking place globally as well as locally. Those changes have necessitated the need for making changes in the existing journalism programs. Themes such as "globalization," "freedom," "Social Responsibility," "Diversification," and "emerging democracies" (especially in former East European countries) have all made those curricular changes a "must" for any program that needs to keep up with the rest of the world. Mass Communication is in dire need to reinvent itself now that new media laws are being debated and enacted and different countries are redefining the role of the journalist and the media in general in today's world.

At another level, we are now witnessing a true revolution in the world of communication in general and in journalism in particular in terms of the technological advances in news gathering, news diffusion and other delivery systems, and the growing significance, and hence impact, of new approaches and tools, and even the birth of a new generation or breed of journalists known now as "pamphleteers," "Bloggers," Podcasters, "citizen journalists," and other names and titles.

"It is in this changing landscape of journalistic delivery systems that is certainly having an impact on curriculums and the way we go about teaching journalism," says the Director of Ohio University's E.W. Scripps School of Journalism. Today it is imperative to reconsider the focus on print and broadcast forms to adapt to the ever-changing new environment.

It is within these new realities that we, at Notre Dame University's Department of Mass Communication, strongly feel the need for making changes that we deem necessary if we want to survive in a very competitive environment and in a fast-moving and ever-developing industry. The suggested changes that you'll see below attempt to create and maintain a balance between the need for the traditional, basic skills courses that are essential to any student who is seeking a career in print journalism, and the need for new courses that reflect all these changes that are taking place around us.

Suggested Program for B.A. in Communication Arts-Journalism: (total of 102 credits)
General Education Requirements: 33 credits (Please refer to new catalog)
Core Requirements: 18 credits
COA 201; COA 252; COA 352; COA 359; COA 362; PDP 201.
Free Electives: 9 credits
Major Requirements: 42 credits (includes 33 Obligatory credits plus 9 credits to be selected from a pool of Journalism and other related courses.)

<u>Required Courses:</u> 33 Credits.

JOU 210 Mass Media Language) (Taught in Arabic and English)
JOU 310 News Writing and Reporting (Arabic and/or English)

JOU 320 Copyediting and Headlines Writing (Arabic and/or English) (new)
JOU 323 Web Journalism (new)
JOU 370 Newspaper Production. (from 2 credits to 3) Taught in Arabic and/or English.
JOU 480 Internship in Journalism (from 1 credit to 3)
JOU 490 Senior Study in Journalism
COA 426 Electronic Newsgathering
ARB 302 Practice in Use of Arabic
ARB--- one course in addition to courses required by GER
ENL--- one course in addition to courses required by GER

Elective Journalism Courses: A student majoring in "Journalism" must select 9 credits (three courses) from the following pool:
JOU 325 Photojournalism
JOU 333 News Analysis and Editorial Writing (Arabic and English) (new)
JOU 340 Public Relations Techniques
JOU 369 Special Topics in Journalism (Arabic and/or English) (new)
JOU 460 Case Studies in Public Relations
COA 368 International Communication
COA 415 Broadcast News Operations
COA 425 Writing and Reporting for the Electronic Media
IAF 231 World Political Geography

B. A.in Communication Arts
Journalism Emphasis-Suggested Program (102 credits)

- Fall Semester I (15 Credits)

COA 201	Mass Media Essentials	3 cr.
ENL 213	Sophomore English Rhetoric (GER)	3 cr.
PDP 201	Photography	3 cr.
ARB	GER	3 cr.
JOU 210	Mass Media Language	3 cr.

- Spring Semester I (15 credits)

COA 252	Principles of Public Relations	3 cr.
ENL 230 or 223	GER	3 cr.
STA 202	Statistics for Humanities (STA 202)	3 cr.
JOU 310	News Writing and Reporting	3 cr.
___ _____	GER	3 cr.

- Summer Session I (9 credits)

___ ___	Pool Course	3 cr.
ARB 302	Language Requirement	3 cr.
___ __	GER	3 cr.

- Fall Semester II (15 credits)

JOU 320	Copyediting and Headlines Writing	3 cr.
COA 352	Censorship & Responsibility in media	3 cr.
ARB ___	Language Requirement	3 cr.
ENL ___	Language Requirement	3 cr.
___ ___	Pool Course	3 cr.

- Spring Semester II (15 credits)

JOU 323	Web Journalism	3 cr.

JOU 370	Newspaper Production	3 cr.
___ ___	GER	3 cr.
___ ___	Free Elective	3 cr.
COA 359	Media and Society	3 cr.

- Summer Session II (6 credits)

___ ___	Pool Course	3 cr.
___ ___	GER	3 cr.

- Fall Semester III (15 credits)

COA 362	Mass Communication Research	3 cr.
JOU 480	Internship in Journalism	3 cr.
COA 426	Electronic Newsgathering	3 cr.
___ ___	GER	3 cr.
___ ___	Free elective	3 cr.

- Spring Semester III (12 credits)

JOU 490	Senior Study in Journalism	3 cr.
___ ___	GER	3 cr.
___ ___	Free elective	3 cr.
___ ___	GER	3 cr.

Course Descriptions:

JOU 210 Mass Media language. (3.0); 3 cr. Principles of effective journalistic writing for mass media. Emphasis on writing basic news stories focusing on grammar, structure, and style.

JOU 310 News Writing and Reporting. (3.0) 3 cr. The course builds on principles practiced in JOU 210. Emphasis is laid on the process of information gathering, reporting and writing for the mass media. The course stresses the elements of news, leads, and styles of advanced news stories. Students practice interviewing techniques. .Prerequisite: JOU 210.

* **JOU 320** Copy Editing and Headline Writing. (3.0) 3 cr. This course focuses on the headline writing and editing news in order to produce clear, accurate, and vivid copy. Prerequisite: JOU 310.

*__JOU 323__ Web Journalism (3.0) 3 cr. Journalism in the internet age is studied in this course. Blogging, podcasting, and citizen journalism will be examined and practiced. Prerequisite: JOU 210.

JOU 325 Photojournalism. (3.0) 3 cr. Role of the photographer as a communicator and a member of the editorial team. Students use cameras and software to produce photographs for print and digital media. Ethical, legal, and stylistic aspects of photos are discussed. Prerequisite: PDP 201.

*__JOU 333__ (3.0) 3 cr. News Analysis and Editorial Writing. Guidelines and practices in editorial and news analysis writing. Pre-requisite: JOU 210.

JOU 340 Public Relations Techniques. (3.0). 3 cr. The use of different communication tools in reaching public audiences. Analysis and production of print, electronic, and oral messages that will help achieve organizational goals. Students carry out public relations events following the principles used by professionals in the field. Prerequisite: COA 252.

*__JOU 369__ Special Topics in Journalism. (3.0) 3 cr. Variable content on different issues not covered in specific courses in the curriculum. Topics may include: Sports Reporting; Foreign Correspondence; Impact of Social Media, environment, among others. Prerequisites: Junior standing and permission of the Chairperson.

*** New Courses**

JOU 370 Newspaper Production. (3 .0). 3 cr. Students shall produce a campus publication in which they incorporate their acquired journalistic skills. Hands-on experience in writing, editing, and laying out features, photos, and other news stories. Co-requisite: JOU 310.

JOU 480 Journalism Internship. (3.0). 3 cr. Practical training in a professional print outlet. Reports required. Prerequisite: Senior standing.

JOU 490 Senior Study in Journalism. (3.0). 3 cr. A major final project in print journalism that examines in depth an area in the field. Oral presentation of project is required. Prerequisite: COA 362. Chair's approval is required.

Textbooks suggested for the new courses

For the Copyediting and headline Writing course: The Editorial Eye by Jane Harrigan (ISBN-10: 0312041175.) (For COA 320)

For the Sports Reporting: Best American Sports Reporting, 2005. By Mike Lupica (ISBN-10: 0618470204) (Possible For JOU 369)

For the Webline Journalism: We will seek the most recent and important book(s) in this area but we have the following: Computer-assisted reporting: A Journalist's Guide, by Mathew Reavy (ISBN-10: 0767411552) (For JOU 323)

Satellite Newsgathering, 2nd Edition. By Jonathan Higgins, 2007. (ISBN-10: 0240519736) (Possible For JOU 369)

Broadcast News Writing, Reporting, and Producing, 5th edition, 2010. By Ted White and Frank Barnas. (ISBN-10: 0240811836) (Possible For JOU 369 and JOU 323)

Notre Dame University Libraries
Interlibrary Loan/Document Delivery Service Policy

Approved by the UC on May 24th, 2011
Approved by the BOD on May 11th 2011

Approved by the BOD, October 17, 2007 and published in the NDU Gazette, Issue # 6, October 2007.

The purpose of this document is to provide guidelines related to the Interlibrary Loan (ILL) / Document Delivery Services (DDS) facilities provided by the NDU Libraries.

What is ILL/DDS?

ILL/DDS is a service that allows the NDU community to obtain materials such as books, e-book chapters, journal articles, theses and dissertations, conference papers and other publications, which are not available at the NDU Libraries. It cannot be used to request materials for work for private employers, for personal non-university research, or for recreational reading.

Prospective users

ILL/DDS is a service offered by the NDU Libraries to faculty members, researchers, academic administrators, staff and currently enrolled students who are engaged in research and who hold a valid NDU ID. Borrowers with holds on their library accounts (whether for overdue items or outstanding fees) are ineligible until their records are cleared.

The NDU Libraries reserve the right to evaluate any ILL/DDS request and to reject it if necessary.

Maximum ILL/DDS Requests (per academic year)

Academic Administrators: 20 items free of charge, additional items will be provided at cost
Full Time Faculty: 20 items free of charge, additional items will be provided at cost
Part-Time Faculty: 5 items free of charge, additional items will be provided at cost
Staff members: 5 items free of charge, additional items will be provided at cost
Graduate Students: 10 items free of charge, additional items will be provided at cost
Undergraduate students: 5 items free of charge, additional items will be provided at cost

Document Delivery Services only will be provided at cost for NDU Alumni. Please request an updated schedule of ILL/DDS charges from the ILL/DDS Specialist for a summary of the applicable fees.

ILL/DDS services are not available to any other NDU Libraries user.

Item(s) which cannot be obtained through ILL/DDS will not be counted toward the maximum number of requests allowed per academic year.

Research Centers ILL/DDS Requests

ILL/DDS services will be provided to researchers associated with the University Research Centers. There is no limit to the number of ILL/DDS requests which can be made by researchers affiliated with research centers; however the cost of the requests will be deducted from the annual materials budget of the requesting research center. All ILL/DDS requests must be approved by the Director of the concerned research center before they will be processed.

Service availability

The ILL/DDS request form is available at the Information Systems Department or online at www.ndu.edu.lb/services/req.asp.

Requestor responsibilities

Before submitting an ILL/DDS request, the requestor should check to ensure that NDU Libraries do not hold the needed item(s) by searching in the following:

1. WebView - NDU Libraries Online Public Access Catalog
2. NDU Libraries Electronic Resources

NDU Libraries users who request three or more items in one academic year through ILL/DDS that are available through the NDU Libraries resources mentioned above may be banned from using the ILL/DDS service for the remainder of the academic year.

Eligible materials

ILL/DDS provides access to materials that are not available in the collections of the NDU Libraries. These include: books, e-book chapters, journal articles, government documents and reports, theses, doctoral dissertations, etc.

Books that have been declared missing by the Circulation Department after a search has been done may be requested through ILL/DDS; books being reviewed for damage and replacement may also be requested upon evaluation.

Ineligible materials

Rare materials, materials designated as 'reference' by other libraries, audiovisual materials, special collection materials, photographs, slides and microforms, music scores, and complete copies of e-books..

Submitting requests

The ILL/DDS request form may be obtained at the Information Systems Department or online at www.ndu.edu.lb/services/req.asp.

Telephone or email requests will not be accepted.

Before submitting requests the following procedure should be applied:

1. Each item requested requires a separate form.
2. An email and/or daytime phone number MUST be included in every ILL/DDS request form.

Requests will usually be processed within one (1) working day of receipt, excluding delivery time. More than two requests from an individual may need several days to be processed.

The NDU Libraries will attempt to provide all requested items, but delivery cannot be guaranteed since materials are occasionally in use or are unavailable from lending libraries. Requestors will be notified of delays of more than four (4) weeks.

Time required

The average time required to obtain materials from lending libraries is one to three weeks depending upon the availability of the item(s) requested.

Duration of loans, renewals and recalls

Due dates for items borrowed through interlibrary loan, as well as the renewal terms, are established by the lending library. The due date for each item is indicated on the date due slip attached to the item. The borrower is solely responsible for respecting loan periods and will be charged for any loss, damage or overdue items.

Library users may request a one-time renewal of any Interlibrary Loan material, provided the request is made at least three working days before the due date indicated on the date due slip. Library users will be notified on or before the original due date if the renewal request has been approved by the lending library. Renewal requests cannot be made for overdue items.

Interlibrary Loan materials are subject to recall by the lending institution without prior notice. Recalled items must be returned to the ILL/DDS Specialist within **one working day** after the library user is notified, otherwise overdue charges will be assessed.

Notification, pick-up and return

The ILL/DDS Specialist will notify the user when the requested item(s) are available. Item(s) can be picked up from the Circulation Desk. DDS materials become the property of the library user; ILL materials must be checked out with a valid NDU ID.

Loaned item(s) must be returned to the Circulation Desk that they were borrowed from by the indicated due date.

Overdue Notices and Charges

Library users are responsible for returning borrowed Interlibrary Loan materials on or before the indicated due date.

Overdue items will be charged a **minimum** fine of 3,000 LL per item per day by the NDU Libraries; any additional charges imposed by the lending library must also be paid by the library user.

Interlibrary Loan items that are more than 2 weeks overdue will be presumed lost and charged for accordingly.

Students must pay all outstanding library fees before the University will issue transcripts, diplomas, or allow class registration for the next semester. Faculty members and university employees may have the library fees deducted from their paycheck and/or have their final paycheck stopped until all fees are paid.

Clearances will not be provided to library users until all outstanding charges are paid.

Lost, Stolen or Damaged Items

Repair or replacement fees are established by lending libraries according to their rules and regulations. ILL/DDS service will be denied to NDU borrowers violating these rules. The service may be restored after resolving the problem that caused the denial of service.

If materials are lost, stolen or damaged, the individual to whom the item is checked out will be held responsible and charged for all expenses incurred by the NDU Libraries to repair or replace the lost, stolen or damaged items.

Students must pay all outstanding library fees before the University will issue transcripts, diplomas, or allow class registration for the next semester. Faculty members and university employees may have the library fees deducted from their paycheck or have their final paycheck stopped until all fees are paid.

Clearances will not be provided to library users until all outstanding charges are paid.

Restrictions on use

NDU Libraries and the borrower are bound by any restrictions on use imposed by the lending library.

Recently published books

Recently published books are often difficult to borrow on interlibrary loan because they are in demand at the libraries owning them. Request for purchase of such materials for the NDU Libraries collections can be made through the Acquisitions, Gifts & Exchange Department.

Copyright information

The Document Delivery Service (DDS) is compliant with the copyright law of Lebanon (Resolution no. 75, published April 3, 1999) and all applicable international copyright laws.

Libraries Lending Policy

All NDU-Louaize Libraries resources may be accessed and used within the confines of the library. In addition, many materials are available to be checked out of the library. The type of material and the library user's category determine the loan period and other restrictions.

Eligible Borrowers

All current students and university employees (faculty, academic administrators, co-academic members, and staff) of Notre Dame University-Louaize (NDU), members of the Maronite Order of the Holy Virgin Mary, and NDU Alumni who have met the specified requirements, may borrow library materials.

The library user must appear in-person and present a valid NDU identification card to check out books or other materials, No proxy borrowing will be allowed. The library user will be held responsible for all materials borrowed in their name.

Library users who are both students and employees of the University may only borrow materials using their employee identification card.

All loans are renewable provided another user has not recalled the item.

Students

Student borrowing privileges are determined by the class standing provided to the library by the Registrar's Office.

- Freshmen, Sophomore and Junior students may borrow a maximum of seven items for a period of two weeks or as specified in the section on loan restrictions and recalls.
- Senior students may borrow a maximum of ten items for a period of four weeks or as specified in the section on loan restrictions and recalls.
- Master's students may borrow a maximum of 15 items for a period of four weeks or as specified in the section on loan restrictions and recalls.
- Doctoral students may borrow a maximum of 30 items for the duration of the current semester or as specified in the section on loan restrictions and recalls.

Full-time Faculty, Academic Administrators and Co-Academics

Full time faculty, academic administrators and co-academics may borrow a maximum of 30 items for the duration of the current semester or as specified in the section on loan restrictions and recalls.

Part-time Faculty

Part-time faculty may borrow a maximum of 15 items for the duration of the current semester or as specified in the section on loan restrictions and recalls.

Staff
Staff members may borrow a maximum of fifteen items for a period of four weeks or as specified in the section on loan restrictions and recalls.

Researchers Affliated with the Research Centers
Researchers affliated with NDU Research Centers may borrow a maximum of four items for a period of four weeks or as specified in the section on loan restrictions and recalls.
Borrowing privileges will be extended to researchers affiliated with the NDU Research Centers upon presentation of a letter, signed by the Director of the concerned Research Center and the Vice President for Sponsored Research and Development.
It is the responsibility of the Director of the concerned Research Center to inform the library at least one month in advance when a researcher will be terminating their relationship with the Research Center and that borrowing privileges should be withdrawn.
The Research Center will be held responsible for all materials not returned to the library by their affliated researchers.

Division of Continuing Education (DCE) Faculty members
Division of Continuing Education (DCE) Faculty members may borrow a maximum of ten items for a period of four weeks or as specified in the section on loan restrictions and recalls.

Division of Continuing Education (DCE) Students
Currently enrolled Division of Continuing Education (DCE) students may borrow a maximum of two items for a period of two weeks from the DCE Library ONLY.

Alumni
Notre Dame University-Louaize Alumni are allowed and encouraged to use the University library and are subject to the same rules and regulations that apply to all library users.
Alumni may access and use library materials within the library during regular operating hours. Borrowing privileges will be extended to alumni who are registered with the Alumni Affairs Office and who have paid a one-time deposit of 150,000 L.L. This deposit will be returned to the alumni member when all checked out items have been returned, any applicable fees have been paid and borrowing privileges have been suspended.
Alumni who meet the above requirements may borrow a maximum of two items for a period of two weeks or as specified in the section on loan restrictions and recalls.
Alumni are not allowed to check out course reserve materials from the library. These materials may be accessed and used in the library.

Members of the Maronite Order of the Holy Virgin Mary
Members of the Maronite Order of the Holy Virgin Mary may borrow a maximum of ten items for a period of four weeks or as specified in the section on loan restrictions and recalls.

Library guests and visitors
Guests and visitors are only allowed to access library books and materials within the confines of the library. No borrowing privileges are granted.

Loans, Restrictions, Recalls and Lost Materials
Non-Circulating Materials
The following library materials **do not circulate**, however they may be accessed and used within the library:

- Newspapers
- The most currently received issue of a periodical or magazine
- Reference books
- NDU theses
- Closed Circulation materials
- Special Collections materials

Upon request, all non-circulating materials housed at another campus library may be brought to the user's campus library for consultation within the library only.

Short Loan and Restricted Access Materials

- The following library materials have restricted loan periods as noted:
  - Books classified as Art and Architecture (700-790) circulate to students for **one week**.
  - Bound periodical volumes (maximum of two) circulate only to faculty, academic administrators , co-academics and doctoral students for **one week**.
  - Bound periodical volumes (maximum of two) circulate only to master's students for **three days**.
  - **The most recently received issue of a journal or magazine does NOT circulate.** Older copies of journal or magazine issues (maximum of two issues per title and six issues total) circulate only to faculty, academic administrators , co-academics and doctoral students for **one week**.
  - Videocassettes and DVDs circulate for **one week**. At the Mariam and Youssef Library only, facilities are available for library users to view videocassettes and DVDs within the confines of the library.
  - Videocassettes and DVDs located at the Audio Visual Facilities (Zouk Mosbeh Campus) must be borrowed from and returned to the Audio Visual Facilities (Zouk Mosbeh Campus).
  - Materials located at the Marian Studies Center Library circulate only to members of the Maronite Order of the Holy Virgin Mary and to NDU Faculty members for **four weeks**. All other users must use these materials on-site.

Course Reserves

Course reserves are placed on short-term loan periods at an instructor's request so that all students in a class may have an opportunity to read or review the materials. These materials are available on request at the Circulation Desk. Library users must have their current NDU identification card and know the instructor's name and the course title to ask for these materials.

- The policies concerning the circulation of Reserve books and materials apply to students, faculty, academic administrators, co-academics, staff, and members of the Mariamite Order, and are as follows:
  - Open reserve books and materials circulate for 3 days, 7 days or overnight according to the requirements of the instructor placing the materials on reserve. Overnight reserve books and materials must be returned to the library not later than 9:00 a.m. of the next working day.
  - Closed reserve books and materials do not circulate outside the Library unless the instructor who placed the materials on reserve provides written permission.
  - Library users may reserve materials daily for overnight use by registering their names at the Circulation Desk. Materials will be handed out on a first-come, first-served basis. A valid NDU identification card must be submitted to check out reserve materials.

Alumni are not allowed to check out course reserve materials from the library. These materials may be accessed and used in the library.

High Priority Requests

Items listed in WebView (NDU Libraries online public access catalog) as **In process** or **On Order**, may be requested to be cataloged as High Priority by filling out a form at the Circulation Desk.

Recall of Library Materials

At the request of another library user, any library item may be recalled at any time, from any user. Normally, the current borrower will be allowed one week to return the item(s) to the library where they will be held for the requester for one week. Borrowers may be requested to return an item within a shorter time period.

If an instructor requests an item to be placed on Reserve for class use, the item may be recalled immediately, regardless of when it is due and who has it.

Overdue fines of 3,000 L.L. per item, per day, will be charged if recalled items are not returned when requested.

Charges, Overdue Materials and Penalties

Overdue Library Materials

Fines are charged for overdue or lost library materials and borrowing privileges will be suspended for any library user with overdue items or outstanding fines.

It is the responsibility of the library user to be aware of the due dates for borrowed items and return them on time. **Failure to receive notification does not relieve the borrower of the obligation to return materials when they are due**. Daily fines will begin accumulating the day after the item is due.
The fines for overdue items are as follows:

Regular circulating materials:	**500 L.L. per item, per day**
Reserve materials:	**3,000 L.L. per item, per day**
Recalled materials:	**3,000 L.L. per item, per day**
All other library materials:	**500 L.L. per item, per day**

Library materials that are more than four weeks overdue will be presumed lost and charged for accordingly.
Students must pay all outstanding library fees before the University will issue transcripts, diplomas, or allow class registration for the next semester. Faculty, academic administrators, co-academics or staff members may have the library fees deducted from their paycheck or have their final paycheck stopped until all fees are paid.
Clearances will not be provided to library users until all checked out items are returned to the library and all outstanding charges are paid.

Lost or Damaged Library Materials
A library user who loses, damages, or is unable to return library materials for any reason, will be charged a replacement fee. Library materials that are more than four weeks overdue will be presumed lost and charged for accordingly.
The replacement fee for lost or damaged materials will be determined by the costs associated with replacing the item, plus any accumulated fines. If the user pays these fees and then returns the item within 3 months, the replacement fee, minus the accumulated overdue fines, will be refunded.
Students must pay all outstanding library fees before the University will issue transcripts, diplomas, or allow class registration for the next semester. Faculty, academic administrators, co-academics or staff members may have the library fees deducted from their paycheck or have their final paycheck stopped until all fees are paid.
Clearances will not be provided to library users until all checked out items are returned to the library and all outstanding charges are paid.

Mutilation or Theft of Library Resources
Mutilation or theft of library resources will incur disciplinary action, including suspension of borrowing privileges. In addition, the responsible party will be charged for the repair or replacement of the materials as described in the section on lost library materials.
Mutilation includes, but is not limited to, cutting or tearing paper-based materials, writing or highlighting in books or other materials, and damaging audio/visual and computer resources.
Library users are held responsible for all library materials borrowed in their name. It is the responsibility of the user to notify the library of any damage or mutilation of library materials, **whether it occurred before or after they borrowed the materials**, including damage caused by normal wear and tear, or they may be penalized.

- *The Library Lending Policy was approved by the University Council, March 2, 2001 and by the President, March 5, 2001.*
- *Revised and approved by the University Council, March 7, 2003 and by the President, March 10, 2003.*
- *Revised and approved by the University Council and the President, May 20, 2008.*