

The NDU Gazette

A publication covering decisions taken at the BOD and UC meetings

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Table of Contents

**D
E
C
I
S
I
O
N
S**

- 1. Consulting Policy*
- 2. FH Minors: Advertising and Marketing
Radio and Television
Psychology and Journalism*
- 3. FH New Physical Education Courses*
- 4. FE: Curriculum Changes*

Issue Number Two, June 2009

Consulting Policy

Approved by the BOD on Dec 3, 2008 and

revised on May 27, 2009

Approved by UC on May 29, 2009

Preamble

Notre Dame University-Louaize (NDU) believes that professors serve their students more effectively when they are aware of best practice in their field of specialization. It is certain that contacts with companies who seek advice from university faculty members benefit the faculty member, the company and the university. Allowing for consulting will also make NDU more attractive to prospective faculty members and develop closer ties with industry and the community.

Definitions

Consulting is defined as professional service related to the faculty member's specialization or area of expertise and provided by the faculty member within a limited period to entities outside the university for a fee.

Faculty member is defined as a full-time employee of the University whose title is that of Instructor, Lecturer, Senior Lecturer, Assistant Professor, Associate Professor, or Professor. Full-time research faculty and full-time employees are excluded.

Policy

Faculty members may be granted the permission to engage in consulting services, devoting the equivalent of a maximum of one day a week for consulting services provided such services do not interfere with the faculty member's teaching, research and service activities at the university. The maximum number of consultancy days shall be **thirty** during Fall and Spring and **six** in Summer when the faculty member has a summer teaching assignment. No maximum number of consultancy days is set for those periods of the year during which faculty members have no teaching/administrative duties.

General Guidelines

- a. The main commitment of the faculty member is to NDU. The time and effort devoted to consulting activities may not in any way interfere with the prime commitment to the university.
- b. The consulting activity should be an extension to the faculty member's professional expertise and should be limited in time and scope. The experience gained from the activity should be applied to the faculty member's teaching and interaction with students.
- c. The faculty member shall inform the Department Chairperson of his or her intention to conduct outside consulting activities in order to obtain prior approval. Approval should also be secured from the Dean and the VP, AA.

- d. No faculty member shall accept or retain employment which would bring him or her as an expert or in any other capacity, into conflict with the interests of NDU.
- e. Faculty members should not engage in consulting services already offered by one of the research centers, Departments or other offices at NDU.
- f. A complete list of consulting activities, including a copy of the request for consulting received by the faculty member, should be attached to the faculty member's annual self-evaluation. The self-evaluation should also describe how these activities have been used to benefit the teaching or research activities of the faculty member or NDU in general. Some Faculties may consider consulting activities that involve original research and applications as a component in their promotion criteria.
- g. NDU resources and staff services are not to be used in any consulting activities. Any minor use of university equipment, or other resources must have the written approval of the Chairperson and Dean.
- h. NDU's name shall not be used by a faculty member in relation to any consulting activities except in citing his or her credentials.
- i. Time spent on consulting activities should not exceed the equivalent of one working day per week.
- j. Any documented abuse of this policy by a faculty member (exceeding the max. weekly allowed time for consulting or neglect of university duties in order to engage in consulting activities or accepting consulting assignments outside one's area of expertise, etc.) shall disqualify him or her from obtaining approval for consulting activities in the future.

Implementation of the Consulting Policy

Approved by the BOD on May 27, 2009
and UC on May 29, 2009

1. Upon request for consultation, every faculty member shall fill in the consulting Request Form at the Dean's Office including the type of consultancy, the time expected for this outside service, and the institution asking for the service.
2. If one of the Deans is asked for consultation, the Form shall be filled in the VP/AA Office.
3. The total Consulting expenses shall be paid from the institution concerned directly to the University's Business Office.
4. Once the service is completed, the faculty member concerned shall fill in the Consulting Remuneration Form at the Dean's Office. A copy of that Form shall be submitted to the Business Office.
5. At the end of each semester, the Business Office shall inform the faculty member concerned of the total; 80% of the amount is due to him/her.
6. The faculty member concerned may choose either to get this amount from the University in cash (one lump sum) **OR** to be added to his salary/by installments.

Consulting Request Form

Approved by the BOD on May 27, 2009
and UC on May 29, 2009

Name of Faculty Member: _____

Faculty: _____ Department: _____

Institution requesting the Consultancy: _____

Type of Consultancy: _____

Please give details: _____

Total Consulting Expenses: _____

20% of the amount due to NDU: _____

The Consulting period begins on: _____

and ends on: _____

Signature of Consultant: _____ Date: _____

Signature of:
the Dean/or related Director: _____ Date: _____

Signature of: the VP/AA _____ Date: _____

Signature of the President: _____ Date: _____

Consulting Remuneration Request Form

Approved by the BOD on May 27, 2009
and UC on May 29, 2009

Name of Faculty Member: _____

Faculty: _____ Department: _____

Institution requesting the Consultancy: _____

Type of Consultancy: _____

Consulting completed on: _____

Total expenses paid to NDU on: _____

Total Consulting Expenses: _____

80% of the amount due to Dr.: _____

The Consulting period begins on: _____

and ends on: _____

Signature of Consultant: _____ Date: _____

Signature of the President: _____ Date: _____

Faculty of Humanities
Department of Mass Communication
Minor in Advertising and Marketing (18 cr.)

Approved by the BOD on May 27, 2009
and UC on May 29, 2009

Rationale

Advertising and Marketing is one of NDU's biggest and strongest academic sequences that attracts hundreds of students who are interested in pursuing a career in this field. NDU has this unique combination of two disciplines that complement each other for bettering the students' chances of landing a job in any of the following areas: Sales, Marketing; Public Relations. Media Planning, Creativity, Research, Global advertising, and others. A Minor in this area will undoubtedly attract an interest from people who are currently majoring in other "communication" sequences such as Radio/Television, Journalism and other disciplines such as Business Marketing, Graphic Design, and Economics. This minor will help students to acquire the practical skills and the theoretical knowledge needed in today's advertising industry. Our graduates are dispersed throughout the advertising industry both inside Lebanon and in various Arab countries and they all are enhancing our program's great reputation.

Proposal: The NDU Minor in Advertising and Marketing would be comprised of 18 credits. Any student may elect to do a Minor in this area provided that he/she is in good academic standing that is if he or she has a G.P.A of 2.0/4 and above. A student can only count up to six credits which he/she may have taken from the list of the required courses for this "Minor" prior to electing a "Minor" in Advertising and Marketing.

Courses required

ADM 216 Principles of Advertising (3 cr.)
ADM 341 Media Planning and Analysis (3 cr.)
ADM 352 Creativity and Copywriting (3 cr.)
FDP 214 Basic Design for Advertising (3 cr.)

Plus

MRK 311 Consumer Behavior (3 cr.)

OR

MRK 321 Promotional Strategy (3 cr.)

And

ADM 351 E-Commerce (3 cr.)

OR

ADM 453 Global Advertising (3 cr.)

Course Descriptions

ADM 216 Principles of Advertising (3.0); 3 cr. This course introduces the first year advertising student to the field of advertising and its relationship to marketing and mass media. Basic theories of advertising are studied. Elements of successful ads are also analyzed. Local, regional and world advertising agency structures are examined.

ADM 341 Media Planning (3.0) 3 cr. Role of media in achieving marketing and advertising objectives. Examines channels of communication. Students study the process of planning an advertising campaign. A complete campaign including budget, personnel and strategies is required for the course. *Prerequisite:* ADM 216

ADM 351 E-Commerce (3.0) 3 cr. The focus of this course is on today's electronic market environment. Students are to develop proficiencies with interactive business and communication technologies and must have access to an e-mail account. *Prerequisite:* CSC 201 or computer literacy.

ADM 352 Creativity and Copywriting (3.0); 3 cr. The course studies theory and application of the creative side of advertising. Students practice the various principles through designing and executing print, electron and outdoor advertising. In class peer evaluation and analysis of ads is carried out. *Prerequisite:* ADM 216; *co-requisite:* FDP 214

ADM 453 Global Advertising (3.0); 3 cr. This course analyzes the history, development and current status of international advertising based on the cultural, economic, political and linguistic characteristics of the countries studied. Students are required to develop an innovative project with an international dimension. Importance of diversity to global advertising is stressed. *Prerequisite:* ADM 341; *co-requisite:* ADM 352

MRK 311 Consumer Behavior (3.0); 3 cr. Concepts and theories to explain the decision making process of consumer and organizational buying. Attention is focused on economic, psychological, sociological and anthropological variables to understand, predict and control purchasing behavior. No Prerequisite if taken as a "minor" requirement.

MRK 321 Promotional Strategy (3.0); 3 cr. Introduction to various promotional strategies adopted by different companies and guidelines for determining a company's promotional mix. Topics covered include: advertising; personal selling; publicity and promotion; determination of objectives and budgets; situation analysis. Also, discussion of managerial issues and problems. No Prerequisite if taken as a "minor" requirement.

Faculty of Humanities
Department of Mass Communication
Minor in Radio/TV (17 cr.)

Approved by the BOD on May 27, 2009
and UC on May 29, 2009

Rationale

In this electronic age of information and in a society that is trying to move forward in re-energizing its film and television productions, NDU's R/TV sequence in our department may prove to be the launching pad of the talents and skills needed to invigorate those industries. More than 150 students are currently majoring in Radio, Television, and Film at NDU and there is a rising desire in these fields among students doing other "majors" and we'd very much like to cater to those students' needs and interests. NDU's administrators have been tremendous in responding to our continuous requests to update the Studio's equipment and to make it a state-of-the-art facility that serves both students majoring in Radio and Television and the NDU community at large. A Minor in Radio and Television will provide students with the technical training and the theoretical framework needed for job opportunities in electronic media production, programming, scriptwriting, directing, and film techniques.

Proposal: The NDU Minor in Radio, Television, and Film would be comprised of 17 credits. Any student with a good academic standing that is if he/she has a G.P.A of 2.0/4 and above may enroll in this minor. He or she may only count six credits which he/she may have taken from the list of the "R/TV Minor requirements while pursuing another major.

Courses required for a "Minor" in Radio and Television are:

- COA 225 Lighting 1 (2 cr.)
- COA 270 Studio Workshop (1 cr.)
- COA 275 Editing 1 (2 cr.)
- COA 312 TV Production Techniques (3 cr.)
- COA 310 Scriptwriting (3 cr.)
- COA 330 Documentary and Non Theatrical Film (3 cr.)

OR

- COA 311 Radio Programming (3 cr.)

And **One** course from the following:

- COA 325 Directing and Acting Skills (3 cr.)
- COA 430 Television Drama (3 cr.)
- COA 457 Cinematography (3 cr.)
- COA 475 Computer Graphics and Animation (3cr.)

Course Descriptions

COA 225 Lighting I (2.0); 2cr. Theoretical and practical use of lighting in TV studio productions: drama, talk shows, and news. Students will acquire a fundamental understanding of lighting techniques and they will be able to learn how to create, use, and modify lighting patterns, systems, and conditions in various settings. *Co-requisite:* COA 272 only for students majoring in R/TV.

COA 270 Studio Workshop I. (1.0); 1 cr. Functions and operations of radio and TV equipment. Students will spend 80 percent of their time working directly with the equipment and developing

solid familiarity with cameras, digital technology, and other useful tools. Essential for subsequent radio and television courses.

COA 275 Editing I (2.0); 2 cr. Provides students with the basic skills needed for working on different types of editing systems- Linear and Non-Linear. Topics include basic setup, adjusting and customizing preferences, and various editing and trimming techniques, among others. *Co-requisite:* COA 272 only for students majoring in R/TV.

COA 310 Scriptwriting (3.0); 3 cr. Students will study film terms and formats, work with treatment, scenario and shooting scripts, analyze film and television clips, shorts, tapes, and full-length films with emphasis on understanding the writer's perspective. Numerous writing assignments and exercises will be assigned with the intent of developing a student's ability to write for a visual medium. Students must write a script of a short film or video.

COA 311 Radio Programming (3.0); 3 cr. Audio production concepts and techniques using audio laboratory studio equipment. Practical experience in producing, editing, and other aspects of radio programming emphasized. Students visit local radio stations.

COA 312 TV Production Techniques (3.0); 3 cr. Introduction to multi-camera studio production and location video recording. Explores directing techniques, operation of studio and control room, conceptualization, basic scriptwriting, audio board operations, and lighting in a studio setting. *Prerequisites:* COA 270 and COA 275

COA 325 Directing and Acting Skills (3.0); 3 cr. Teaches acting and directing actors and the director-actor relationship, with focus on different methods and styles of acting, in relationship to the script and the characters. Includes building of a character, creating a role, and performing in front of an audience and in front of a camera. *Corequisite:* COA 310

COA 330 Documentary and Non – Theatrical Film (3.0); 3cr. A study of non – theatrical films, such as documentary, news, educational and public relations films, video clips, etc. Involves shooting and editing reports and a video clip. Students will also produce a short documentary by the end of the semester. *Prerequisite:* COA 312

COA 430 TV Drama (3.0); 3 cr. This course involves both the theory and the practical elements needed to shoot, direct, and edit a TV dramatic production. Students shoot before a live audience. Final project requires a complete tv drama beginning with the original script to the final tape. *Prerequisite:* COA 310

COA 457 Cinematography (3.0); 3 cr. Cinematographic techniques for film and video. Analysis of cinematographic styles, including qualities of camera movement and composition, lenses, and lighting as expressive tools. Explores aesthetics, techniques, and responsibilities of the cinematographer. Hands-on experience shooting scenes with film and video cameras, lighting, and grip equipment. *Prerequisite:* COA 226

COA 475 Computer Graphics and Video Animation (3.0); 3 cr. Applying computer graphics in developing video animation projects. Includes the use of computer animation as applied to a variety of art media. Principles of movement and timing, lighting, cinematography, and multi-plane dimensionality as applicable to computer and traditional drawn animation. Drawn representation of telephoto or wide-angle lens perspective and depth of field. *Prerequisite:* COA 312

FH - Department of Mass Communication Minor in Journalism (18 cr.)

Approved by BOD on March 26, 2009
and UC on May 29, 2009

Rationale

Some people in the academic world strongly advocate the idea of a “minor” in Journalism even for those students who want to pursue careers in the field but who major in areas such as Political Science, English, History, and other disciplines. Those who opt to major in other areas will have an opportunity to do a “minor” in Journalism at NDU which provides them with the proper Journalism courses and training that should help prepare them for careers in the media industry, be it as writers, reporters, Public relations practitioners, or photographers. The Journalism courses that are taught in Arabic will help students improve their journalistic writing skills in their native language and in a market that requires proficiency in Arabic as well as in other languages and skills. The Journalism “Minor” will be of particular interest to Advertising/Marketing students and to students in the areas of Electronic Media, Political Science, English, and perhaps other areas.

Proposal: The NDU Minor in Journalism would be comprised of **18 credits**. Students would be **required** to take:

COA 201	Mass Media Essentials
JOU 210	Mass Media Language
JOU 310	News Writing and Reporting
JOU 370	Newspaper Productions
JOU 320	Copyediting and Headline Writing

And **One course** from the following pool:

COA 252	Principles of Public Relations
COA 350	Current Issues
COA 352	Censorship and Responsibility in Media and Film (Media Law)
COA 360	Media Ethics
COA 367	Foreign Correspondence
COA 415	Broadcast News Operations
JOU 323	Web Journalism
JOU 325	Photojournalism
JOU 340	PR Techniques
JOU 450	Specialized Journalism

Journalism Minor Courses

JOU 210 Mass Media Language (3.0) 3 cr. Principles of effective writing in Arabic with emphasis on grammar, structure, and style. In - class exercises in producing clear, balanced, and vivid basic news stories. Co- requisite: ARB 290.

JOU 310 News Writing and Reporting (3.0) 3 cr. Fundamentals of writing for the mass media. Also reporting techniques and information gathering. Elements of news, leads, and styles of advanced news stories. Emphasis on developing stories and interviewing techniques Pre-requisite: JOU 210

JOU 320 Copyediting and Headline Writing (3.0) 3 cr. Editing news and pictures, Headline writing, layout and design and skills required to produce clear, accurate, and vivid text. Special emphasis on editing the daily newspaper. Pre-requisite: JOU 310

JOU 323 Web Journalism (3.0). 3 cr. Gathering, reporting, and delivering news and other material in the Internet Age. Techniques and tools such as blogging, podcasting, citizen journalism, and others will be examined and practiced. Topics include web usability and design. Pre-requisite: JOU 210.

JOU 325 Photojournalism (3.0) 3 cr. Role of the photographer as a communicator and a member of the editorial team. Photo assignments required. Use of cameras and software to produce photographs for print and digital media. Ethical, legal, and stylistic aspects of photos. Pre-requisite: PDP 201.

JOU 340 Public Relations Techniques (3.0) 3 cr. The use of various communication tools in reaching public audiences. Students embark on real-life projects. Analysis and production of print, electronic, and oral messages that will help achieve organizational goals. Pre-requisite: COA 252.

JOU 370 Newspaper Production (3.0) 2 cr. Students must produce a campus publication in which they incorporate their acquired journalistic, writing, and other communication skills. Hands – on experience in writing, editing, and laying out features, photos, and other news stories. Co-requisite: JOU 310.

JOU 450 Specialized Journalism (3.0) 3 cr. Different areas of Journalism such as education, life-style, environment, legal journalism and others. Coverage of “Beats” and use of specific styles for various subjects. Pre-requisite: JOU 310.

COA 201 Mass Media Essentials (3.0) 3 cr. The study of various types of mass media. This course surveys the cultural industries from multiple perspectives, including historical, economic, regulatory, and social effects. Theories, effects, and regulations will also be examined.

COA 252 Principles of Public Relations (3.0) 3 cr. History, principles, theory, ethics, and practices of Public Relations with emphasis on publicity, public opinion, and crisis management. Also elements of strategic management. Pre-requisite: COA 201. No pre- requisite if taken as an elective.

COA 350 Current Issues (3.0) 3 cr. Major political, cultural, economic, and social issues and how they are reported in the media. Local, regional and global issues will be discussed, analyzed; students will make informative presentations.

COA 352 Censorship and Responsibility in Media and Film (3.0) 3 cr. A study of different types of censorship and their relationship to moral codes, religions, politics, laws, and society. This course examines media laws in Lebanon. Specific subjects include libel, privacy, press laws, and governmental regulations.

COA 360 Media Ethics (3.0) 3 cr. Analysis of ethical issues pertaining to the Media. Dubious methods in news gathering, conflict of interests, invasion of privacy, and stereotyping, among others. Ethical and moral considerations as they apply in the daily work of a journalist.

COA 367 Foreign Correspondence (3.0) 3 cr. The Role of the foreign correspondent in news gathering. The history of foreign correspondence, techniques, roles and other tips.

Also international channels of communication. Pre-requisite: COA 201. or permission of Department.

COA 415 Broadcast News Operations (3.0) 3 cr. Gathering, preparation, and presentation of a generic broadcast news product. This course emphasizes the process of directing news in all its phases, including equipment operation and crew management. Pre-requisite: COA or Department approval.

Faculty of Humanities Department of English, Translation & Education

PES 346 Lifeguard Training (2 cr.)

Approved by the BOD on May 27, 2009
and UC on May 29, 2009

Course Rationale

The Physical Education program currently offers an elective swimming course to NDU students who are seeking a two-credit Physical Education course. Students who are majoring in Physical Education are offered two two-credit swimming courses so that they are effective teachers of swimming skills. A course in lifeguard training will prove a logical, if not vital, addition to choices available to Physical Education students who may be likely to take jobs in this domain. It is necessary to note that students who would take this course must pass a swimming test.

Course Description

PES 346 (2.0); 2 cr. This course introduces and develops skills and knowledge necessary to prepare individuals for lifeguard responsibilities. It teaches students to prevent, recognize, and respond to aquatic-related emergencies. Teaching methodology includes lectures, demonstrations, and instructional video with hands-on training and practice. Pre-requisite: Students must pass a swimming test on the first day of class.

Course Textbook:

Lifeguarding Today. Participants Manual. St. Louis, MO: C.V. Mosby Publishers.

PES 345 Basic Life Support and First Aid (2cr.)

Course Rationale

NDU is in the process of further developing its Physical Education major. Presently, the degree has an updated and well-developed basic curriculum which will serve the graduate well as he or she seeks a career in teaching on the school level or chooses to become an athletic coach or trainer. In order to offer our students the same choices available through physical education departments in universities that adhere to best practice worldwide, the DETE believes it is necessary to supplement the current program with a course in Basic Life and First Aid Support techniques.

Course Description

PES 345 Basic Life Support and First Aid (2.0); 2 cr. This course trains students in Basic Life Support skills and first aid care according to International Red Cross standards. It combines lectures and demonstrations with hands-on training and practice. Focus will be on bone fractures,

joint dislocations, ligament sprains, muscle strain, major wounds, burns, basic airway management, bleeding control, and spinal dislocation.

Proposed Textbooks:

- *First Aid*. Fifth Edition. American Academy of Orthopedic Surgeons. Jones and Bartlett Publishers.
- *First Aid Responding to Emergencies*. Latest Edition. American Red Cross. San Bruno, CA: Stay Well Publishers.

PES 347 Handball (2cr.)

Approved by the BOD on May 27, 2009
and UC on May 29, 2009

Rationale

One of the goals of the Physical Education program at NDU is to provide students the opportunity to take practical courses in the athletic activities taught in Lebanese schools since most major students become Physical Education instructors in schools.

At present, most schools in Lebanon have adopted an official Physical Education program from elementary to secondary levels based on the French Baccalaureate system. Actually, these schools are bound by the Lebanese French Cultural Center to teach sports that will be part of the final sport exam that the students will have to pass in order to earn their baccalaureate. These sports include racquet sports (badminton, table tennis), track and field, gymnastics, swimming and team sports: basketball, football, volleyball and handball.

NDU's current Physical Education curriculum offers courses in most of these sports: badminton (2cr), table tennis (2cr), track and fields I, II and III (2cr), gymnastics I and II (2cr), swimming I, II and III (2cr), basketball (2cr), football (2cr) and volleyball (2cr).

Based on this rationale, it is important to include handball as a 2-credit course in the Physical Education curriculum to allow students, if hired by a Lebanese school based on the French Baccalaureate system, to be able to teach handball.

Course Description

This 2-credit course will provide the basic skills of team handball including fundamental strategies and rules.

Required Text

[Bernath E. Phillips](#). (2007). *Fundamental Handball*. Whitefish, Montana: Kessinger Publishing, LLC.

LaPoint, James D. and Baha Hamil. (1994). *Team Handball: Skills, Strategies and Training*. Dubuque, Iowa: Eddie Bowers Publishing Co.

Faculty of Engineering Curriculum Changes

Approved by the BOD on May 27, 2009
and UC on May 29, 2009

I. Civil and Environmental Engineering Department

Amendments of the System Constraints

1: CEN 580 Finite Element does not need “Instructor’s Approval”

Rationale: CEN 580 Finite Element pre-requisite “Instructor’s Approval” needs to be deleted. No need for Instructor’s approval and ME students can register the course.

Old Status: Pre-requisite Instructor’s Approval

New Status: Pre-requisite CEN 203 or MEN 202

Dates of Approval: a-DCC: 11/3/09
b-FCC: 16/3/09

2: MEN 302 pre-requisite CEN 203 for CE students

Rationale: MEN 302 can substitute CEN 407 (not offered in Civil), but MEN 302 has MEN 202 as pre-requisite which is equivalent to CEN 203 Mechanics of Materials, so CE students can register MEN 302 with their CEN 203 as pre-requisite

Old Status: Pre-requisite: MEN 202, MAT 235

New Status: Pre-requisite: CEN 203 or MEN 202, MAT 235

Dates of Approval: a-DCC: 11/3/09
b-FCC: 16/3/09

3: CEN 270 without pre-requisite

Rationale: CEN 270 Engineering graphics has “co-requisite CEN 271 CE CAD” needs to be removed, so ME students can register CEN 270

Old Status: Pre-requisite: CEN 271

New Status: Pre-requisite: None

Dates of Approval: a-DCC: 11/3/09
b-FCC: 16/3/09

4: Fourth Year Standing definition

Rationale: Remove for “Fourth Year Standing” the statement “(or currently finishing)” since we passed the transition period and we need to impose a sequence of transportation engineering courses I II and III to be taken during the Third year and Fourth year.

Old Status: A student is considered as a Fourth Year Standing once he has successfully passed (or currently finishing) all his CEN 300 level Major requirement courses

New Status: A student is considered as a Fourth Year Standing once he has successfully passed all his CEN 300 level Major requirement courses

Dates of Approval: a-DCC: 11/3/09
b-FCC: 16/3/09

5: CEN 271 as Major Requirement

Rationale: CEN 271 needs to be moved to the Major Requirements pool being a CEN course specific to the Department of Civil and Environmental Engineering. Therefore the Core Requirements will be 45 credits and Major Requirements 58 credits. Applied to students with ID # 2009

Old Status: CEN 271 part of the Core Requirements pool

New Status: CEN 271 part of the Major Requirements pool

Dates of Approval: a-DCC: 11/3/09
b-FCC: 16/3/09

II. Electrical, Computer and Communication Engineering Department

1. Change in the course description of EEN 480

New Version:

EEN 480 Discrete-Time Signal Processing (3.0); 3 cr. Fundamental concepts of discrete-time signals and systems; digital signal processing of discrete signals; sampling theory and reconstruction; discrete Fourier transforms and analysis of digital filters in the frequency domain; Z-transforms, causality and stability; state-space equations; design and analysis of FIR and IIR digital filters; windowing; bilinear transformation; filter structures. *Prerequisite:* EEN 340.

Old Version:

EEN 480 Discrete-Time Signal Processing (3.0); 3 cr. Digital signal processing of continuous and discrete signals. Discrete Fourier sampling and reconstruction. Design and analysis of digital filters. *Prerequisite:* EEN 340.

Rationale for Change:

The way this course is presently described in the NDU catalog does not completely reflect what the students are learning in class. This change is intended to remedy the discrepancy between the present course description and the updated syllabus presented in class.

DCC Approval Date: March 6, 2009

FCC Approval Date: March 13, 2009

2. Change in the course description of EEN 583

New Version:

EEN 583 Advanced Signal Processing (3.0); 3 cr. Advanced techniques in signal processing; multirate signal processing, up-sampling and down-sampling in the Z-domain; non-stationary signals; frequency-domain adaptive filtering; the correlation matrix; least-squares adaptive algorithms; linear prediction; the wavelet transform. *Prerequisite:* EEN 480.

Old Version:

EEN 583 Advanced Signal Processing (3.0); 3 cr. Advanced techniques in signal processing. Windowing, Short Time Fourier transform. Correlation and spectral estimation. Non-stationary signals. Time/frequency analysis STFT. The wavelet transform. *Prerequisite:* EEN 480.

Rationale for Change:

In the current description of this course in the NDU catalog, there are some topics that are covered in EEN 480. In the new description, the content is made more relevant to an advanced course in signal processing. Moreover, overlap between EEN 480 and EEN 583 is avoided.

DCC Approval Date: March 6, 2009

FCC Approval Date: March 13, 2009

3. Change in the name and course description of EEN 416 (Solid State Devices)

New Version:

EEN 416 Principles of Semiconductor Devices (3.0); 3 cr. Fundamentals of the physical properties of semiconductors; doping; Fermi-Dirac statistics; generation-recombination properties of excess carriers in semiconductors; optical absorption and luminescence; carrier drift and diffusion; properties of the p-n junction under forward and reverse bias; characteristics of semiconductor devices, and advanced device issues relevant to state-of-the-art integrated-circuit technologies. *Prerequisites:* PHS 213 and EEN 331.

Old Version:

EEN 416 Solid State Devices (3.0); 3 cr. The fundamentals of carrier generation, transport, recombination, and storage in semiconductors. The physical principles of operation of the p-n junction, metal semiconductor contact, bipolar junction transistor, MOS capacitor, MOS and junction field-effect transistors. *Prerequisites:* PHS 213 and EEN 331.

Rationale for Change:

The course name does not fit with the material that can be covered in one semester. Solid State Devices is the name of the advanced book from which we can only cover the first five chapters, i.e. the principles of semiconductor devices. The course description was also rewritten accordingly

DCC Approval Date: March 6, 2009

FCC Approval Date: March 13, 2009

4. Change in the name and course description of EEN 436 (Optical Fibers)

New Version:

EEN 436 Fiber Optics (3.0); 3 cr. Ray optics and wave optics; design optimization of fibers for optical data transmission; fiber fabrication; signal degradation in optical fibers; fiber connections and diagnostics. *Prerequisite:* EEN 331.

Old Version:

EEN 436 Optical Fibers (3.0); 3 cr. Waveguide analysis of optical fibers. Fiber losses. Sources and detectors. Optical fiber link design. *Prerequisite:* EEN 331.

Rationale for Change:

The name “optical fibers” may be misleading for this course because an “optical fiber” is only the name of the glass wire itself. “Fiber optics”, however, means the “optical science” behind the “optical fibers”, i.e. the whole fiber optic system, which is being taught in this course. The course description was also rewritten accordingly.

DCC Approval Date: March 6, 2009

FCC Approval Date: March 13, 2009

5. Change in the course number, name, course description, and pre-requisite of EEN 437 (Lasers)

New Version:

EEN 527 Optoelectronic Devices (3.0); 3 cr. Principles of light-emitting diodes (LEDs), lasers, and photodetectors; population inversion at a junction; generation of coherent radiation; heterojunctions, quantum-well LEDs and lasers, and vertical cavity surface-emitting lasers (VCSELs); PIN and avalanche photodiodes; photonic fabrication and packaging. *Prerequisite:* EEN 416.

Old Version:

EEN 437 Lasers (3.0); 3 cr. Wave equation and ray optics. Optical matrices. Diffraction theory. Fourier optics, holography, polarization. Semiconductor lasers. *Prerequisite:* EEN 331.

Rationale for Change:

Nowadays, semiconductor lasers consist of more than 90% of commercial lasers in the market. Moreover, semiconductor lasers together with light-emitting diodes and photodiodes are the basic optical sources and detectors for many advanced systems that involve optical communications, laser surgery, etc. For that reason, it is vital for students who are interested in the field of optics and lasers to learn about such systems. The old course entitled “Lasers” became a bit archaic, as it only covers some basic ray optics and extremely basic laser principles. Making EEN 416 (Principles of Semiconductor Devices) a prerequisite enables the instructor to review the basics of semiconductors very quickly at the beginning of this course and concentrate on the advanced laser based systems, which makes sense in a last year elective course. Together with the EEN 436 (Optical Fibers) and/or the EEN 545 (Optical Communication) courses, students can graduate with a solid knowledge in the largely growing optoelectronics technology.

DCC Approval Date: March 6, 2009

FCC Approval Date: March 13, 2009

6. Addition of Graphics Courses in the EE Program

Proposal

Add the following courses to Group 2* of Technical Electives in the EE Contract Sheet:

1. CEN 270 Engineering Graphics (0.2); 1 cr.
2. MEN 270 Computer-Aided Design (0.2); 1 cr.
3. MEN 370 Graphics for Mechanical Engineers (0.2); 1 cr.

OR

A course from

- *Technical Elective Lab. 1 courses:* EEN 325, EEN 328, EEN 363, EEN 365, EEN 462.
- *Technical Elective Lab. 2 courses:* EEN 439, EEN 444, EEN 456, EEN 459, EEN 481.

Students would be allowed to take the above three courses in place of the EEN / CSC Technical Elective.

*Group 2 (3 cr.) : CSC 313 or CSC 318 or CSC 387 or EEN 315 or EEN 322 or EEN 326 or EEN 327 or EEN 344.

Rationale for Change:

Electrical engineers who work on the design of industrial and building electrification systems are being required to use CAD tools for drawing. This need is also reported by students who do their summer training in this area. The courses CEN 270 and MEN 270 cover the fundamentals of engineering graphics and AutoCAD. The course MEN 370 is useful for EE students who will be involved in the design of electric machinery. The technical elective lab courses will serve as an alternative option for students who do not wish to take MEN 370.

DCC Approval Date: November 17, 2008 and in revised form on February 23, 2009

FCC Approval Date: January 21, 2009 subject to amendments and revision form: March 13, 2009

III. Mechanical Engineering Department

Proposal: MEN 581 Special Topics in Mechanical Engineering

The Curriculum Committee of the Mechanical Engineering Department has approved, in its meeting of Thursday, March 12, 2009, the upgrade of the ME program to include a course on **Special Topics in Mechanical Engineering**. The course is to be listed under the technical electives pool and to be offered based on students' requests provided that faculty members with the right expertise are available.

The main objective of adding such a special course is to accommodate new and rapidly changing fields of mechanical engineering into the program without the need for a permanent listing of the courses related to those fields. Such a course is used everywhere in terminal year in order to expose students to the latest aspects of the technology, and similar courses are used in the other engineering departments at NDU (Civil Engineering and Electrical & Computer and Communication Engineering). For the sake of uniformity across engineering majors, the course details are as follows:

MEN 581 Special Topics in Mechanical Engineering (3.0); 3 cr. Material includes coverage of recent developments in Mechanical Engineering that are needed to update students on the latest technologies. Department determines topics to be covered and *prerequisites* when offered.