

# FLORIDA INTERNATIONAL UNIVERSITY

## CURRICULUM COMMITTEE BULLETIN



### CURRICULUM COMMITTEE BULLETIN #3

January 7, 2003

The following curriculum information is presented to the University Community for its consideration. In accordance with the procedures of the University Curriculum Committee, objections to all proposed new courses, programs, or program/course modifications should be communicated, in writing, within two weeks of the publication date of this bulletin, to Professor Rosalie Hallbauer (Curriculum Committee), Leonard Bliss (Graduate Council), or Professor Gerardo Aladro (Undergraduate Council).

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### HEARING NOTICES

NAME: PROPOSAL FOR A NEW TRACK IN HEALTH, PHYSICAL EDUCATION AND RECREATION  
COLLEGE: EDUCATION  
DATE: Friday, January 17, 2003  
TIME: 10:00 AM  
PLACE: DM 441 (UP), LIB 155 (UP)  
CONTACT: Debra Trigoboff, College of Education (Joint Hearing: Curriculum Committee and Undergraduate Council)

### COLLEGE OF ARTS & SCIENCES - REQUEST FOR ADDITION OF DEGREE DESIGNATION UNDER EXISTING BACCALAUREATE MAJOR: BS DEGREE IN INFORMATION TECHNOLOGY AS A STAND-ALONE MAJOR

Proposed Additional Baccalaureate Degree Designation (e.g., BA, BS, BFA): BS  
Effective Date: Fall, 2003

Florida International University is authorized to offer the existing baccalaureate degree noted above. This request is to add another degree designation under the authorized program. Offering this additional degree designation will require no new resources.

Briefly describe the need for an additional degree designation. - This alternate implementation aims at giving considerable expertise in a different field to students whose primary focus is in IT whereas the second degree implementation gives considerable IT expertise to students whose primary focus is in another field (the primary major.) The standalone IT degree achieves this goal by requiring all students to obtain a minor in another program within the university. Both approaches are based on the general agreement in the IT community that to be more effective, IT practitioners must have a good understanding of the field they are serving.

Briefly describe how the proposed curriculum differs from the existing curriculum and attach a list of the coursework necessary for this program. NOTE: Common Pre-requisites must remain the same. - The existing curriculum is offered as a second major and as such consists of 30 credit hours. The proposed curriculum will be offered as a stand-alone major consisting of 60 credit hours. The prerequisites and the required courses for both implementations are the almost the same (the stand-alone implementation requires an additional technical report writing course.) However, the structure of the elective courses is different -- the stand-alone implementation requires more electives and a minor in a different field.

### BS in IT program (Stand-Alone Major)

#### Common Prerequisites:

1. COP 2250 Programming in Java
2. A 3 credit hour course in Psychology
3. CGS 2060/CGS 2100
4. Pre Calculus
5. MAD 1100 -- Mathematical Foundation of IT
6. CGS 3092 -- Professional Ethics and Social Issues in Computer Science

**Rationale:** Applicants to the Master of Social Work program have a variety of undergraduate backgrounds. Generally, however, they fall into two distinct groupings. First, are the undergraduates who have a general arts and sciences background with a four-year undergraduate degree in psychology, sociology, political science or other related fields. The second category includes those graduates of a four-year Bachelor of Social Work degree.

Four-year undergraduate applicants from the general studies BA population tend to be mature students many of whom have or are presently employed in applied social work positions. While these students do not have the academic social work course experience, they do have substantial social science foundational knowledge to enter the first year of the graduate program. Achievement of a GPA of 3.0 or better has generally been a predictor of success in the MSW program. Where studies have been done on the GRE as a predictor of success in social work graduate education with this population, the GRE does not emerge as a strong indicator of success.

Graduates of these programs are generally assumed to have made a career decision and are returning for advanced (graduate) professional education in social work. Throughout North America, such students are given various levels of advanced standing status within graduate social work programs. With few exceptions these students have taken at least 20 courses in social work and if they have achieved at least a 3.0 GPA in those courses they have a strong probability of success in the MSW program. Further, although it is not an admissions criterion, these students are most likely to be employed or have been employed in social work prior to seeking advanced social work education. In other words, these applicants are in a position to provide a range of admissions information in support of their application.

Graduates of BSW programs are generally assumed to have made a career decision and are returning for advanced (graduate) professional education in social work. Throughout North America, such students are given various levels of advanced standing status within graduate social work programs. With few exceptions these students have taken 60 upper division credits in social work courses including two Field Practica requiring 630 clock hours of field work. If they have achieved at least a 3.0 GPA in those courses they have a strong probability of success in the MSW program. Further, although it is not an admissions criterion, these students are most likely to be employed or have been employed in social work prior to seeking advanced social work education. In other words, these applicants are in a position to provide a range of admissions information in support of their application.

The use of the GRE in social work admissions decisions has long been a matter of debate. One of the areas of concern within social work has been the possible disadvantage to minority populations. The school/School of social/Social work/Work is particularly sensitive to this debate and is aware of the possible implications to our applicant population. In excess of 75% of our applicants are from Hispanic, Black, and African American populations. This applicant population reflects the composition of our community at large and assists/will the need for graduates from these ethnic and racial backgrounds. The school/School of social/Social work/Work must use admissions criteria that would not risk inhibiting these potential applicants.

#### Summary:

Overall, the school/School of social/Social work/Work does not see the GRE as a helpful criterion in the admissions procedure at this time. The minimum GPA, the personal narrative statement, and the letters of reference from employers and previous professors give us a clear perspective on the aspects of the individual's capacity to complete the MSW program. It is more likely that the GRE would discourage and disadvantage applicants rather than help the admissions committee in its goal to secure the best candidate for the graduate program.

This proposal to request an exemption from the use of the GRE in social work graduate admissions received the support of the faculty within the school/School of social/Social work/Work at the faculty meeting/meeting of November 7, 2002.

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#### JURIS DOCTOR/MASTER OF SOCIAL WORK - JOINT DEGREE PROGRAM - FACULTY CONTACT: SCOTT NORBERG

The faculties of the College of Law and the School of Social Work at Florida International University have approved a joint degree program culminating in both a Juris Doctor degree, awarded by the College of Law, and a Master of Social Work degree, awarded by the School of Social Work. Under the joint degree program, a student can obtain both degrees in significantly less time than it would take to obtain both degrees pursued consecutively. Essential criteria relating to the joint degree program are as follows:

Candidates for the program must meet the entrance requirements for and be accepted by both the College of Law and the School of Social Work. Both schools must be informed by the student at the time of application to the second school that the student intends to pursue the joint degree.

2. A student must satisfy the curriculum requirements for each degree before either degree is awarded. The School of Social Work will allow 9 credit hours of approved law courses to be credited toward both the M.S.W. and J.D. degrees. These 9 credit hours of law classes will be in lieu of Social Work electives and must be selected from an approved list of law classes. Reciprocally, law students may receive 9 hours of credit toward the satisfaction of the J.D. degree for courses taken in the M.S.W. curriculum upon completion of the M.S.W. degree curriculum with a grade point average of 3.0 or higher.



ARTS AND SCIENCES, CONTINUED:MODERN LANGUAGES:

JPN 3XXX Advanced Japanese I 3 credit  
Continuation of Intermediate JPN II which provides the beginning level of advanced training in the acquisition and application of the language skills. Prerequisites: JPN I, II, JPN Intermediate I and II.

SICS:  
AST 3XXX Observational Astronomy 3 credit  
Observational Astronomical techniques from radio to x-rays including CCD Imaging, Photometry, and Spectroscopy.

AST 3XXX Observational Astronomy Lab 1 credit  
The lab component associated with Observational Astronomy. Covers acquisition, reduction and interpretation of astronomical data using telescopes and computers.

PHY 4XXX Nuclear and Particle Physics 3 credit  
Basics of Nuclear and Particle Physics, Nuclear forces, quark-gluon structure of hadrons, deep-inelastic scattering, quark and particle astrophysics, formation of quark-gluon plasma.

PHY 6XXX Advanced Nuclear and Particle Physics 3 credit  
Nuclear and Particle Physics, nuclear forces, reactions and kinematics, deep inelastic scattering, partons QCD, nuclear and particle astrophysics, quark gluon plasma. Prerequisites: PHY 4604.

STATISTICS:

STA 6XXX Statistics for Environmental Sciences 3 credit  
Environmental Quality Data, Binomial, Poisson, Normal, Lognormal, and Extreme value distributions. Prediction and Tolerance Intervals, Hypothesis testing of Environmental Quality Data, Risk Assessment, Regression, Spatial Statistics  
Prerequisites: STA 2122, STA 6166, STA 3145 or the equivalent.

COLLEGE OF EDUCATION: NEW COURSE REQUEST LISTED BY DEPARTMENT:CURRICULUM AND INSTRUCTION:

RED 5147 Developmental Reading 3 credits  
Principles, procedures, organization and current practices in the developmental reading program. Overview of instructional practices.

EDUCATION LEADERSHIP AND POLICY STUDIES:

EDH 6XXX Introduction to Student Affairs Administration 3 credits  
Overview of student affairs administration through a review of its history, theoretical foundations, functional areas, legal concerns, administrative structure and current and future issues.

EDH 6XXX Organization and Administration of Student Affairs 3 credits  
Exploration of organizational and administrative issues in Student Affairs including relationship to other executive areas, interrelationships of units, research, leadership and case studies.

EDUCATION AND PSYCHOLOGICAL STUDIES:

EDP 7XXX Educational Psychology in cross-cultural contexts  
Prerequisites: EDP 7054

EDP 7XXX Psychological problem solving in education 3 credits  
Discussion of psychological problem solving literature and development of problem solving tasks grounded in the educational psychology literature. Prerequisites: EDP 6301

EDF 7483 Seminar in Mixed Methodology of 3 credits  
Utilization of mixed (Qualitative and Quantitative) methods in research, including critical evaluation of worldviews, typology, research questions, data collection/analysis, and meta interferences.

EDF 7492 Educational Program Evaluation 3 credits  
Design, development and implementation of program evaluation studies in education, interpretation and dissemination of the findings. Prerequisites EDF 6475, EDF 6481, EDF 6486

EDP 7980 Doctoral Dissertation in Educational Psychology and Research Ed. D. Dissertation 1-12  
Research for doctoral dissertation students approved for candidacy in Educational Research and Measurement and in Educational Psychology. ~~6-12~~ credits

COLLEGE OF EDUCATION, CONTINUEDHEALTH, PHYSICAL EDUCATION AND RECREATION

PET 4XXX	<u>Advanced Exercise Physiology</u> Provides a detailed examination of the acute and chronic responses to exercise and training. Particular attention is given to responses at the systems and cellular levels. Prerequisites: PET 3351	3 cred
PET 4XXX	<u>Medical conditions in Athletic Training</u> Students will demonstrate knowledge of the medical conditions that can affect athletes, and learn about the proper techniques to recognize, care and treat the athlete who has medical conditions.	3 cred
PET 5XXX	<u>Advanced Exercise Physiology</u> Provides a detailed examination of the acute and chronic responses to exercise and training. Particular attention is given to responses at the systems and cellular levels. Prerequisites: PET 3351	3 cred
PET 5XXX	<u>Exercise, Diet and Weight Management</u> The class prepares students to compare the effectiveness of exercise and several popular diets on weight control and body composition.	3 cred

COLLEGE OF ENGINEERING: NEW COURSE REQUEST LISTED BY DEPARTMENT:INDUSTRIAL AND SYSTEMS ENGINEERING:

EIN 6XXX	<u>Advanced Human-Machine Interaction Design</u> The application of human factors analysis and design methods to complex system interaction Interface design for technological systems in workplace and consumer domains. Prerequisites: EIN 4243 or equivalent	3 cred
EIN 6XXX	<u>Industrial and Systems Engineering Internship</u> To provide graduate students with work experience under approved industrial supervision.	1 cred
EIN 6XXX	<u>Technology Entrepreneurship</u> Entrepreneurial process, evaluation of technology, startup operations and strategy, business plans and venture capital, intellectual property and rights, growth and technology management	3 cred
EIN 6XXX	<u>Technology Policies and Strategies</u> Strategies and policies for managing all aspects of technology. Includes value chain integration, intellectual property, and internal processes and systems.	3 cred

**COLLEGE OF ARTS & SCIENCES - PROPOSED CHANGES IN THE BA IN EARTH SCIENCES**  
**FACULTY CONTACT: GRENVILLE DRAPER**

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<i>Old BA program</i>	<i>Proposed BA program</i>
<b>Lower Division prerequisites</b>	<b>Lower Division common prerequisites</b>
CHM 1045 General Chemistry I CHM1045L General Chemistry Lab II CHM 1046 General Chemistry II CHM 1046L General Chemistry Lab II GLY 1010 Introduction to Earth Sciences GLY 1010L Introduction to Earth Sciences Lab MAC 2311 Calculus I PHY 2053 Physics without Calculus I PHY 2053L Physics without Calculus Lab I PHY 2054 Physics without Calculus II PHY 2054L Physics without Calculus Lab II	No change - not permitted by oversight board
<b>Other courses required for the degree</b>	<b>Other courses required for the degree:</b>
GLY 1100 Historical Geology GLY 1100L Historical Geology Lab BSC 1011 General Bio 2 BSC 1011L General Bio 2 Lab	GLY 1100 Historical Geology GLY 1100L Historical Geology Lab OR GLY 1101 History of Life GLY 1101L History of Life Lab
Total hrs: 32	Total hours 29
<b>Upper Division</b>	<b>Upper Division</b>
GLY 3202 Earth Materials 3 GLY 3202L Earth Materials Lab 2 GLY 4511 & GLY 4511L Stratigraphy and Lab 4 GLY 4309 & GLY 4300L Petrology and Lab 5 GLY 4400 & GLY 4400L Structural Geology and Lab 4 GLY 4822 Intro to Hydrogeology 3 Subtotal hrs: 21	GLY 3202 Earth Materials 3 GLY 3202L Earth Materials Lab 1 OCE 3014 Oceanography 3 Subtotal hrs: 7 AND THREE of the following: GLY 3760 C Geological Map Analysis 3 GLY 4822 Intro to Hydrogeology 3 GLY 4511 & GLY 4511L Stratigraphy and Lab 4 GLY 4300 & GLY 4300L Petrology and Lab 4 GLY 4400 & GLY 4400L Structural Geology and Lab 4 Subtotal hrs: 10-12 AND ONE of the following (3-4): EVR 3013, EVR 3013L Ecology of S. Florida and Lab 4 EVR 4211, EVR 4211L Water Resources and Lab 4 EVR 4231 Air Resources 3 EVR 4310 Energy Resources 3 EVR 4952, EVR 4952L Soils & Ecosystems 4 GEO 3510 Earth Resources 3 GLY 3034 Natural Disasters 3 Subtotal hrs: 3-4 AND Two other 3000 or 4000 level courses in earth sciences/geology (excluding GLY 3039 Environmental Geology) Subtotal hrs: 6-8 Total Upper Division: 26-30
AND	
Three 3000 or 4000 level courses in earth sciences/geology (excluding GLY 3039 Environmental Geology) Subtotal hrs: 9-12	
Total Upper Division 30-33	

**COLLEGE OF ARTS AND SCIENCES: NEW COURSE REQUEST LISTED BY DEPARTMENT:**  
**BIOLOGICAL SCIENCES:**

<b>BOT 5XXX</b>	<b><u>Workshop in Plant Morphology</u></b>	<b>2 cre</b>
	Techniques to analyze plant form and experience with the diversity plant morphology; field work using the collections at Fairchild Tropical Gardens. Prerequisites: Two Botany courses or permission of the instructor.	
<b>OCB 4XXX</b>	<b><u>Marine Microbial Ecology</u></b>	<b>3 cre</b>
	Diversity, ecology and physiology of marine viruses, bacteria and protozoa, their role in marine food webs and the biogeochemical cycling of carbon and nutrients, and the significance of microbial food webs marine productivity. Prerequisites: BSC1010; BSC1011; OCB3043.	
<b>OCB 6XXX</b>	<b><u>Advanced Marine Microbial Ecology</u></b>	<b>3 cre</b>
	Diversity, ecology and physiology of marine viruses, bacteria and protozoa, their role in marine food webs and biogeochemical cycling of carbon and nutrients, and the significance of microbial food webs for marine productivity. Prerequisites: OCB3043 or equivalent.	
<b>PCB 4806</b>	<b><u>Endocrinology Laboratory</u></b>	<b>1 cre</b>
	Laboratory- A series of Lab exercises and experiments designed to supplement lecture material in PCB 4806, coordinated with that content. Prerequisites: General Biology I and II, Permission of the instructor.	
<b>PCB 5XXX</b>	<b><u>Immunophysiology</u></b>	<b>3 cre</b>
	Physiological and Endocrine Regulation of the Vertebrate Immune System. Prerequisites: Immunology PCB 4233	
<b>ZOO 3XXX</b>	<b><u>Forensic Osteology</u></b>	<b>3 cre</b>
	A detailed examination of the human skeleton revealing such individual traits as sex, age, height, and race in order to assist law enforcement investigators in forensic identifications.	

Arts & Sciences, continued:

All students must take the following required courses:

1. IT Core Courses (21 credits)
1. CGS 3425 – Web-Based Programming
2. CGS 3260 – Microcomputer Organization
3. CGS 3760 – Computer Operating Systems
4. CGS 4283 – Applied Computer Networking
5. CGS 4825 – Web Site Construction and Management
6. CGS 4366 – Information Storage and Retrieval
7. ENC 3211 – Report & Technical Writing

All students must obtain a minor in another discipline (15 credits)

IT Electives 15 credits

Students must select two areas of concentration. Students must take at least two courses in each of the selected concentration areas (4 courses). The fifth course might be selected from any available area of concentration.

- System Administration
- Applied Network Administration
- Application Development
- Databases

Free electives (9 credits)

Total credit hours: 60 credits

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COLLEGE OF ARTS & SCIENCES: REQUEST FOR ADDITION OF MINOR DEGREE DESIGNATION UNDER EXISTING BACCALAUREATE: PROPOSAL FOR MINOR IN ASTRONOMY

FIU is authorized to offer the baccalaureate degree in Physics, CIP Code 1902, and has been doing so as the B.S. in Physics. The current B.S. program includes a Minor in Physics. We request the addition of a Minor in Astronomy. This minor program requires no additional resources; simply offers more opportunities for students and will increase enrollment in several existing courses.

The physics Minor in Astronomy is designed to meet the needs of the following categories of students:

1. Students looking to prepare themselves for graduate studies in astronomy/astrophysics.
2. Students looking to add flexibility to their major in the College of Liberal Arts and Sciences.
3. Students who wish to enter science/mathematics education. The ubiquitous need for teachers in these critical fields continues. The addition of a Minor in Astronomy to another Science BS/BA degree will enhance students' preparedness to teach at the high school level.

~~This minor program is designed for students who desire additional capabilities in astronomy. The program offers enhanced preparation for graduate studies in astronomy and astrophysics. It is also aimed at students interested in careers in science education, science centers, museums, and planetaria.~~

Required Courses (21 credits)		
PHY 2048	Physics with Calculus I	4
PHY 2048L	Physics with Calculus Lab I	1
PHY 2049	Physics with Calculus II	4
PHY 2049L	Physics with Calculus Lab II	1
PHY 3123	Modern Physics I	3
PHY 3123L	Modern Physics Lab I	1
AST 3213	Modern Astrophysics	3
AST 3XXX*	Observational Astronomy	3
AST 3XXXL*	Observational Astronomy Lab	1
Total		21

\*New courses submitted Nov. 2002 and to be approved.

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GRADUATE ADMISSIONS STANDARDS - SCHOOL OF SOCIAL WORK - COLLEGE OF HEALTH AND URBAN AFFAIRS  
REQUEST FOR GRE EXEMPTION - Faculty Contact: Mary Helen Hayden

**Admissions Requirements:** Applicants to the Master of Social Work (MSW) program in the School of Social Work are required to meet the minimum standards set forth by the Florida Department of Education and the graduate social work program. All applicants must achieve at least a 3.0 GPA in all upper level courses. In addition, applicants must write a personal narrative describing certain areas of their personal background relative to their goals in achieving a social work degree. Three letters of reference are also required from academics and/or previous employers. The School of Social Work Admissions Committee reviews the applications in relation to each of these requirements and the candidate's suitability to enter the professional program. The GRE has been required but rarely used in the decision making process.