

UCRC

September 14, 2009 Meeting Summary

11:30am – 12:55pm

210 Colton Hall

1) The UCRC&CAA approved Institute Information Literacy Plan was discussed. The planned implementation timeline is as follows:

- a. Departments or colleges develop their own IL plan (using form in Appendix II), for each of their undergraduate programs, due to UCRC by October 15, 2009. The plan should demonstrate where and how each of the eight competencies as they are expressed in the major area are (or will be) taught and assessed. The assessments may be graded assignments such as researched essays, oral presentations, field projects, examinations, theses, and researching codes, regulations, standards, etc. The information plan, the course curricula, syllabi and examples of student work will be demanded by our accreditation bodies as evidence of NJIT's incorporation of IL skill development in each program.
 - b. UCRC reviews the IL plans and responds to the departments or colleges by December 1, 2009.
 - c. All programs start implementing their IL plans in Spring 2010 semester.
 - d. All programs archive assessment evidence supporting their IL plans (i.e., graded examples of student work) in Fall 2010 and Spring 2011, in time for the May 2011 accreditation visit.
- 2) Humanities announced a revision in the course description of HUM 102 to emphasize “interpreting humanities based texts; and writing researched papers”.
- 3) Information Technology announced a name change in one of the IT specializations. After reviewing the curriculum, UCRC requested IT to consider removing the two options under the proposed “Game Development Specialization” and replacing them with two specializations in order to minimize confusion and abide by the recently approved standard terminology used by the Institute.
- 4) Civil & Environmental Engineering announced that the department will require students to earn a ‘C’ grade or higher in the following prerequisite department core courses before they can advance to the next course in order to maintain good standards and enhance student success rates in the Bachelor of Science in Civil Engineering program: FED 101 Fundamentals of Engineering Design, Mech 235 Statics, and Mech 237 Strength of Materials. UCRC suggested that the “C” grade policy be an NCE policy for FED since it is a course taken by all engineering programs, including the “undecided”. The Registrar will be able to

implement this policy for Mech235 and Mech237 for Spring 2010 and will table the FED101 until further notice.

- 5) A proposal for a new course from Architecture, DD 301 Acting Fundamentals for Animators, was approved.
- 6) A proposal for a new course from Math, Math 116 Mathematics of Design, was approved without GUR changes. A separate proposal will follow on requested changes to the GUR.
- 7) A proposal for a new course from Mechanical and Industrial Engineering, IE 463 Inventions and Entrepreneurship, was approved with the addition of “junior standing or permission of instructor” as prerequisites.
- 8) Two new course proposals from Biology for BIOL 225 Insects and Human Society- The little things that run the world and BIOL 447 Cellular and Systems Neuroscience, were approved.
- 9) Three new course proposals from Computer Science for BNFO 136 Programming for bioinformatics II, BNFO 340 Data Analysis for Bioinformatics, and BNFO 482 Data Mining in Bioinformatics were approved with an adjustment to the grading structure.
- 10) Taha Marhaba resigned as Chair of UCRC. Professor Norman Loney was elected the new Chair of UCRC Chair for the remainder of AY09/10.

UCRC

October 12, 2009 Meeting Summary

11:30am – 12:55pm

210 Colton Hall

- 1) Engineering Technology announced a new program option: “Medical Informatics Technology” that is intended to formalize the requirements of their 2-year degree program (4-year for internal NJIT students). Currently, there are 7 colleges in the U.S. that offer Undergraduate Medical Informatics degrees and none in New Jersey.
- 2) The Green Academic Counsel (GAC) proposed a new University-wide “Environmental Studies and Sustainability” minor. The charge of the GAC was to develop a green curriculum for NJIT, involving both formal learning in the classroom as well as informal learning beyond classroom walls. The three objectives of the GAC were to 1) *Inventory “Green” Courses at NJIT*, 2) *Assess Criteria for “Green” Program(s)* and 3) *Address how such programs would be Credentialed*. This initiative is being done without the need of new departmental curriculum changes and this minor will be managed by the GAC.
- 3) Information Technology announced a name change in one of the IT specializations from “Game Programming” Specialization to “Game Development” Specialization. This change is being instituted to take advantage of current industry practice as well as better reflect the content and scope of the actual materials covered by IT.
- 4) The School of Management announced a change in their business minor that is expected to increase the number of students taking that minor. SOM also announced two new courses, ACCT 415 (managerial Auditing) and ACCT 325 (Managerial Accounting II).
- 5) Information Literacy Plan was discussed briefly – resulting in the suggestion that the library representatives provide all departments with a template/example (especially for NCE) – with UCRC help.

UCRC

November 2, 2009 Meeting Summary

11:30am – 12:55pm

210 Colton Hall

- 1) A proposal for a new course from Physics - Biophysics was approved. The objective of this new program is to present the theoretical fundamentals and laboratory skills necessary to understand the physics of life processes.
- 2) A proposal for a new minor from Biomedical Engineering was approved. This new – BME minor for Accelerated Engineering Science students, is an effort to distinguish and clarify the Accelerated Engineering Science program which services professional schools (Medicine, dentistry, optometry, and physical therapy).
- 3) A proposal for a new course from Engineering Technology - SET 280 Marine Surveying was approved.
- 4) A proposal for a double major - *Biology and Science & Technology* from Biological Sciences & STS was approved. Given that New Jersey's large concentration of medical, pharmaceutical, environmental, and biotechnology companies presents substantial employment opportunities for Biology majors. Therefore those who understand regulatory affairs and ethics, with research experience and enhanced communication skills in addition to their scientific knowledge will be the best prepared applicants for these positions. Biology/STS double majors will prepare a thesis about biology within a social context under the direction of the STS advisor.

UCRC

December 7th 2009 Meeting Summary

11:30 – am – 12:55pm

- 1) Two new minors and one Career Track were approved:
 - Electrical Engineering minor and a minor in journalism within the Humanities program
 - Information System added a new career track in Medical Informatics.
A Career Track is a set of 4 courses chosen from existing (8) approved Career Tracks, providing a specialization in a specific area of Information Systems, and is a formal requirement for the Information Systems degrees
- 2) Eight new courses were approved:
 - School of Management added ACCT425 – Tax Accounting and ACCT435 – Intermediate Accounting II
 - School of Architecture added ARCH301 – Digital Modeling and Fabrication
 - Engineering Technology added three “Special Projects in Surveying” courses – SET491, SET492 and SET493. They have also added MIT326 – Electronic Medical Record Design and Analysis
 - Information System added IS421 – Rich Internet Applications
- 3) *Report on Information Literacy Plans*

UCRC

February 8th, 2010 Meeting Summary

1) A proposal to introduce a Geosystems minor consisting of 15 – 18 credits was approved. This new minor is anticipated to provide students with a focused study on Geology and earth and environmental systems. The minor will allow students interested in geosciences, environmental geology, and geoengineering to achieve this credential attesting to the focus of learning.

The Minor was developed with participation of faculty in the departments of Civil and Environmental Engineering (CEE) and Chemistry and Environmental Science (CES) at NJIT, and the Department of Earth and Environmental Sciences at Rutgers-Newark.

2) A proposal was approved for a new course to be offered jointly by the Departments of Chemistry and Environmental Science and Civil and Environmental Engineering - EVSC/CE 381 Geomorphology. This course will offer an integrative approach to understand earth surface processes by emphasizing links between geomorphology and the physical and natural sciences and engineering.

3) A proposal for a new course from Computer Science – CS100 Roadmap to Computing was approved. This course will utilize the pedagogical advantage offered by very high level scripting languages; and will also give computing students a broader perspective on the subject matter of computing.

4) A proposal from the School of Art and Design was approved to introduce three new courses:
1) AD490/490H – *Special topics in Art and Design*. The special topics course becomes a vehicle to test and then revise a proposed course prior to its formal establishment and approval. The dual 490/490H designations also allows faculty to offer special sections or courses that will fulfill the requirements of the Albert Dorman Honors College.

2) DD363 – *Digital Design Studio I* and 3) INT363 – *Interior Design Studio III*. Both design studios with creative projects, case studies, and synthetic applications of material learned in earlier design and support courses (both technical and theoretical) form the basis of a program of study in the design professions and are required by the National Association of Schools of Art and Design (NASAD) for accreditation.

Also from the School of Art and Design a proposal was approved to replace the electives ID401/402 in their Industrial Design Program with unspecified design electives. ID 401/402 were meant to be design electives within any design program, much the same way Interior and Digital Design students can enroll in design electives outside of their respective disciplines. This change facilitates additional opportunities for creative and intellectual synergies among the students and faculty of different design disciplines and will not affect the core studio and technical requirements of the Industrial Design curriculum.

5) A proposal for a new course from the Federated History Department – HIST364 was approved. Primarily this course is to serve as a core course in the Law Technology and Culture major. It is also a key course for legal studies minors, a relevant option for history majors and minors, and a GUR elective for all students.

UCRC

March 8th, 2010 Meeting Summary

1. A proposal was approved from the History Department to a) *change course requirements for NJIT undergraduates who major in Law Technology & Culture (LTC) that includes:* The addition of 6 credits in law-related elective courses, the reduction of 3 credits in legal foundations core courses; the reduction of 3 credits in the LTC core courses; the addition of Hist364 American Law and the World to the legal foundations core courses.

- 2) A proposal was approved for Computer Science to introduce *a sequence of 3 one-credit courses that will take the place of a general elective within all of the CCS majors.* The Primary goal is to increase retention of first year students within CCS. This anticipated to be accomplished in part by having Academic Advisors and faculty/lecturers teaching the first of 3 one-credit seminar courses, thus creating early connections between students and administrators.

- 3) A proposal from the School of Architecture was approved to *offer five new courses:* DD 364 - Digital Design Studio II, AD 463 - Collaborative Design Studio and from the School of Art and Design: INT 322- Contract Documents, INT 351- Furniture Design and INT364- Interior Design Studio IV. These new courses are being developed to meet the needs of students who are in a previously approved program.

- 4) A proposal from Biological Sciences was approved to a) *revise the biology minor* - The Federated department has adopted changes to the minor to ensure students take courses in each of the areas of concentration: ecology and evolution, functional organism, and molecular and cellular mechanisms.
and b) *add two new courses* BIOL 205 & 206 Foundations of Ecology and Evolution. Currently, there is no equivalent course to foundations for the topics of ecology and evolutionary biology -- a comprehensive introduction to these areas suitable for majors, which provides the necessary pre-requisite for upper-level study.

- 5) A proposal from Engineering Technology to *formalize the 4-year Construction Management Technology (CMT) Program* was approved. Since the curriculum for this 4 year program was never formalized when the Construction Engineering Technology and the Construction Industry Management programs were adopted by the UCRC. Because enrollment in the CMT program at that time was waning it was decided to wait and determine the future success of the program. Currently, enrollment in the CMT program has rebounded with the additions of some transfer students as well as the desire of entering freshman to enroll in the program.

UCRC

April 12th, 2010 Meeting Summary

- 1) A proposal was approved from the Biological Sciences Department to *offer a new course*: BIOL448 – **Neuropathophysiology**. A majority of biology students entering NJIT are either interested in entering medical school or becoming future researchers. This course will increase pre-med students understanding of their future work and the basis for the diseases that they will be trained to treat. A goal of the course is to enhance students' knowledge of, and inspire interest in, research related to the pathophysiology of the nervous system.

- 2) A proposal was approved from Engineering Technology to *replace two of their existing courses with two new courses*: **ECET311 – Embedded Systems I (replaces ECET310 – Microprocessors I) and ECET411- Embedded Systems II (replaces ECET410 – Microprocessors 2)**. These courses are intended to develop a working knowledge of the characteristics and applications of devices used in embedded systems such as microcontrollers. Emphasis is put on the architecture, instruction sets, and assemblers. Representative data handling problems and interfacing will be studied and tested in the laboratory using state-of-the-art hardware.

- 3) A proposal from Humanities to *add four new Theatre courses*: **THTR317 – Directing; THTR312 - Movement for Theatre; THTR 350 - Principles of Playwriting and THTR 313 - Voice and Speech for Theatre I**. These are required course for the joint theatre program between NJIT and Rutgers-Newark students.

- 4) The Introduction of a **dual major** in *Science, Technology & Society (Humanities) with Business & Information Systems (Information Systems)* was approved. Students will gain a deeper understanding of how computers and information systems function in the business environment while interacting with the social systems in which we all partake. This dual major also provides students with a unique opportunity to enroll in a degree program which emphasizes science, technology and society combined with information systems and business.

- 5) A proposal from Information Systems to **Revise the BS in Human Computer Interaction (BSHCI)** This revision, based upon our experience and student feedback from the original BSHCI, provides a set of 4 new (attractive) HCI specialization options (Cognitive Psychology, Game Design and Production, Graphical Arts Design and Web & Multimedia Design) and also replaces RU courses originally in the degree but no longer being offered, and brings the degree in line with new GUR requirements. Several key HCI courses have been placed earlier in the curriculum in the junior year (and renumbered) *so that students will obtain earlier exposure to key design and evaluation methods*

UCRC

May 3rd, 2010 Meeting Summary

- 1) A proposal from the History Department was approved to *add two new Co-ops: HIST305 – Co-op in Law, Technology, Culture, and History I. This course satisfies the requirement for the student to complete an internship before the senior year and is a substitution for LTC 492 (LTC 492 was a course that was envisioned as an internship in the original design of the LTC major). HIST306: Co-op in Law, Technology, Culture, and History II is the second Co-op which also serves as an elective for all LTC majors.*

- 2) A proposal from the Department of Civil Engineering was approved to add a new course: **CE465 – Green and Sustainable Civil Engineering.** This course is designed to teach student currently available approaches that incorporate renewable energy and sustainable development concepts in civil engineering projects. Various methods of planning, design and evaluation which promote increased energy efficiency and sustainable use of materials will be included.

- 3) A proposal from Biological Sciences was approved to add a new course: **BIOL346 – Neurobiology.** The Biology Department has a core group of neuroscientists who offer other neuro-related courses and provide space for students to perform laboratory research. This course will enhance the knowledge in, and inspire students who are interested in research to, become aware and interested in the research related to the function (and malfunction) of the nervous system. As such, it will help to prepare students to be effective members of those laboratory environments.

- 4) A proposal from Biomedical Engineering was approved to add a new course: **BME304 - Introduction to Biomedical Engineering III: Tissue-Biomaterial Interactions.** This new course will be a required course for all Biomedical Engineering undergraduate students as it satisfies an ABET criteria that all students in a biomedical engineering program are required to have some level of competency in concepts in materials/devices as related to interfacing with living tissues.

- 5) A proposal from the School of Management to add a new course: **ACCT325 - Intermediate Accounting I.** This course provides an in-depth study of generally accepted accounting principles in the classification, presentation and disclosure of assets required by external users of financial statements. Students will learn to complete accounting cycle activities; prepare and evaluate financial statements with data from an accounting information system; apply financial accounting functions and theory to recognize and measure different types of assets; calculate earnings per share; carry out income tax accounting; and understand the nature and effect of accounting errors.

Professor Robert Friedman (Humanities) was elected to serve as the UCRC Chair for A/Y 2011.