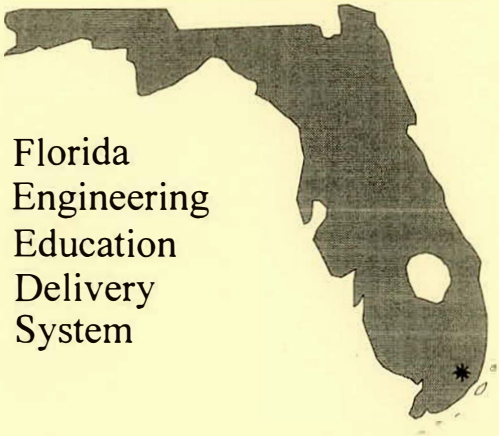
Florida International University

Summer 1999 Course Offerings

FEEDS



Florida
Engineering
Education
Delivery
System

College of Engineering
Center for Engineering and Applied Sciences
Miami, Florida 33174

FLORIDA INTERNATIONAL UNIVERSITY
COLLEGE OF ENGINEERING
FEEDS OFFICE
10555 WEST FLAGLER STREET, EAS 2443
MIAMI, FL 33174
(305) 348-1949
FAX (305) 348-1934

Mercy Cruz
FEEDS Coordinator
(305) 348-2801
E-Mail: mercy@eng.fiu.edu

FIU FEEDS Web site:
http://www.eng.fiu.edu/feeds

Statewide FEEDS Web site:
http://feeds.engr.ucf.edu/

Florida International University

Florida Engineering Education Delivery System
Distance Learning

Summer 1999 Proposed Course Offerings

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ACADEMIC CALENDAR
SUMMER C 1999

Event	On – Campus	FEEDS
Official Registration Week	**April 12 – 16**	**April 12 - 16**
Open Registration	**April 26 - 30**	**April 26 - 30**
Last day to register without incurring a $100.00 late registration fee.	**April 30**	**April 30**
Classes Begin	**May 3**	**May 5**
Registration for State Employees using fee waivers	May 3 – 7	May 3 -7
Last day (5:00 PM) to pay tuition and fees to avoid cancellation of enrollment	**May 7**	**May 7**
Deadline to apply for Summer 1999 Graduation	May 21	May 21
Last day to withdraw from the University with a 25% refund of tuition.	May 28	May 28
Memorial Day Holiday (University Closed)	May 31	May 31
Last day to drop a course with a DR grade.	**June 25**	**June 25**
Classes End	**August 11**	**August 11**
Grades Due	August 16	August 16
Grades available to students by phone, web, and at kiosks	August 18	August18

ACADEMIC CALENDAR
SUMMER A 1999

Event	On – Campus	FEEDS
Official Registration Week	**April 12 – 16**	**April 12 - 16**
Open Registration	**April 26 - 30**	**April 26 - 30**
Last day to register without incurring a $100.00 late registration fee.	**April 30**	**April 30**
Classes Begin	**May 3**	**May 5**
Registration for State Employees using fee waivers	May 3 – 7	May 3 -7
Last day (5:00 PM) to pay tuition and fees to avoid cancellation of enrollment	**May 7**	**May 7**
Deadline to apply for Summer 1999 Graduation	May 21	May 21
Last day to withdraw from the University with a 25% refund of tuition.	May 28	May 28
Last day to drop a course with a DR grade.	**May 28**	**May 28**
Memorial Day Holiday (University Closed)	May 31	May 31
Classes End	**June 18**	**June 18**
Grades Due	June 22	June 22
Grades available to students by phone, web, and at kiosks	June 24	June 24

ACADEMIC CALENDAR
SUMMER B 1999

Event	On – Campus	FEEDS
Summer Term B registration resumes	**June 14 – 25**	**June 14 – 25**
Last day to register without incurring a $100.00 late registration fee.	**June 25**	**June 25**
Classes Begin	**June 28**	**June 30**
Registration for State Employees using fee waivers	June 29 – July 2	June 29 – July 2
Last day (5:00 PM) to pay tuition and fees to avoid cancellation of enrollment	**July 2**	**July 2**
Last day to withdraw from the University with a 25% refund of tuition.	July 23	July 23
Last day to drop a course with a DR grade.	**July 23**	**July 23**
Classes End	**August 11**	**August 11**
Grades Due	August 16	August 16
Grades available to students by phone, web, and at kiosks	August 18	August 18

GENERAL INFORMATION

FEEDS is a statewide system whereby graduate and now undergraduate level engineering courses are delivered to industrial sites and cooperating centers. A student taking a course through FEEDS must meet the same requirements as the student on campus and will earn the same credit as if he/she were to attend classes on campus. A student need not be enrolled in a graduate or undergraduate degree program in order to take a course. However, a student who intends to seek admission to the program should be aware that no more than six (6) graduate or fifteen (15) undergraduate credits are allowed to be transferred into a program.

Phone Registration

There is no phone registration available for FEEDS courses. **All registration forms for FEEDS courses must be processed through the FEEDS Office in EAS 2443.**

Residency Requirements

All new non-degree seeking and degree-seeking students who have not yet been accepted into a graduate program and former students who have not been enrolled at FIU during the past 12 months (three consecutive terms) must complete the Florida International University "Non-Degree Seeking Student" form at the time of registration. Students must also provide a copy of their driver's license and either a copy of their vehicle registration or their voter's registration as proof of Florida residency.

Minimum Enrollment

Taped courses originating from Florida International University require a minimum of three (3) students registered overall through FEEDS, not just at one site.

Tuition and Fees

	In-State	Out-of-State
Undergraduate:	**$ 68.73**	**$290.59**
Graduate course work and Thesis/Dissertation per credit:	**$138.08**	**$481.64**

Picture ID Fee (one-time): **$10.00**
Late Registration Fee: **$100.00**
Late Payment Fee: **$100.00**

Live courses will be assessed an additional Distance Learning Fee and Athletic Fee.

When sending payment, please do not enclose cash. Checks, cashier's checks and money orders will only be accepted. Checks should be made payable to "Florida International University", with the student's social security number written on the check. Payment should be sent to the following address:

Florida International University
P.O. Box 025813
Miami, FL 33102-5813

Receipts are available on campus kiosks and on the Internet at: ***http://www.fiu.edu/~cashiers***.

Cancellation of Registration for Non-payment of Fees

Florida International University will not automatically cancel a FEEDS student's registration in the event that a student has not paid the appropriate fees. In the event that a student intends not to pay his/her fees, he/she must make an official drop or the fees will continue to be charged. Bills may be sent to collection agencies. ***Late payment fees do apply to FEEDS students!*** Please pay close attention to the payment and registration deadlines listed on the academic calendar.

Drop/Add and Withdrawal Deadlines

Please make note of all dates for drop/add and withdrawal deadlines. These are University requirements and all students must abide by these deadlines. We make every effort to compensate for time and distance factors. However, it is ultimately the student's responsibility to endeavor to make these deadlines.

Measles Vaccination

Students who intend to make use of on-campus facilities are required to provide proof of vaccination for Rubella (German Measles).

Contact Information

If during the course of the semester you experience difficulties, please feel free to contact the FEEDS office at the number or address listed on the front

page. However, you should first contact the site coordinator, as he/she may be able to determine and solve the problem more rapidly.

Delivery of Tapes

The FEEDS Office delivers its videotaped courses using United Parcel Services (UPS) Ground Service. Generally, a site will receive tapes no later than two days after they have been shipped. All tapes used are ½" VHS format.

Copying and Distribution of Handouts

The FEEDS Office will distribute only one set of handouts to each site with enrolled students. Site coordinators are responsible for making enough copies for each student in the course and distributing these materials. However, students viewing tapes at the libraries at Broward Community College's Davie campus, the FIU North Miami campus, and the FIU University Park campus will each receive their own set of handouts.

Return of Materials and Exams to FIU

Materials (homework, projects, etc.) can be returned to the faculty member either by directly mailing it to that faculty member or sending it to the FEEDS Office. Students should clearly label their name, the course name and number, and the description of the contents (e.g. Homework #2) they are sending. It is recommended that students make a copy of all materials returned to the University, as some things may get lost in shipping.

Proctoring of Exams and Quizzes

All exams and quizzes requiring a proctor must have the proctor present in the room with the students for the entire time scheduled for the testing period. The proctor must assure that all conditions outlined in the Exam Cover Sheet are maintained. The proctor must sign and return the exam with the cover sheet. The signature certifies that all conditions were met and that no cheating occurred. Students share equal responsibility with site personnel to assure that exam policies are followed.

Textbook Purchasing Information

Textbooks for courses that are taught at Florida International University's UP Campus are available at the Florida International University Bookstore. FIU faculty notify the FIU bookstore of the textbook requirements for the

upcoming semester. Students may telephone in their order by using a credit card (MC or VISA) or mail in their order using a personal check. Payment must be received before the textbook will be shipped. An estimated $3.00 will be charged for UPS anywhere in Florida. A sales tax of 6.5% will be applied to each purchase. Please request your textbooks from:

Dick Drew
Phone: (305) 348-2691
Florida International University
University Park Campus
Campus Bookstore
Graham Center 243
Miami, FL 33199

Textbooks for FIU courses taught at Broward Community College's Central Campus in Davie may be purchased at the Broward Community College Bookstore. Students may telephone in their order using a personal check or money order. Payment must be received before textbook will be shipped. Shipping and handling will also be charged. Please request your textbooks from:

Phone: (954) 475-6830
Broward Community College
Davie Campus Bookstore
Building 1
Davie, FL 33314

Incompletes and Change of Grade

Due to the delayed receipt of final exams and projects, many FEEDS students will receive an Incomplete grade. After receiving an Incomplete, a student should wait three to four weeks to allow a faculty member to complete a Change of Grade form, which is then processed by the Registrar's Office. An Incomplete grade must be resolved and a course grade submitted by the instructor within two semesters after the Incomplete is assigned. Grades not resolved after this time period will be changed to an "F" by the department offering the course.

End-of-term grades are made available over the FIU Telephone Registration System at (305) 348-1500, at the kiosks on campus, and on the Internet at ***http://sis.fiu.edu/***. If you have any questions about the grades that you received, please contact the respective instructor or academic department.

There is a permanent **PIN** (Personal Identification Number) that will allow you to gain access to your grades. You can obtain a PIN by calling the Registrar's Office at (305) 348-2369.

Summer 1999

Proposed Course Offerings

Undergraduate & Graduate Courses

Civil & Environmental Engineering

Construction Management

Electrical & Computer Engineering

Industrial & Systems Engineering

Mechanical & Chemical Engineering

Department of Civil & Environmental Engineering

(305) 348-2824
Fax (305) 348-2802

Dr. L. David Shen, Chairman
(305) 348-3055

Beth Pascual, Undergraduate Advisor
(305) 348-3813

Dr. Wolfgang Rogge, Graduate Advisor – Env. Eng.
(305) 348-6755

Dr. Irtishad Ahmad, Graduate Advisor – Civil Eng.
(305) 348-3045

CES 4702- Reinforced Concrete Design
Term A
Reference # 3781, Section CA (North Miami Campus)
Reference # 3782, Section DA (BCC Campus)
Reference # 3783, Section FA (UP Campus)
Reference # 3784, Section H1 (Off-campus)

Course Description: The analysis and design of reinforced concrete beams, columns, slabs, retaining walls and footings; with emphasis corresponding to present ACI Building Code. Introduction to prestressed concrete is given. Prerequisite: Determinate Structural Analysis

Textbook: Design of Reinforced Concrete, Fourth Edition, Jack C. McCormac.

Reference: Building Code Requirements for Structural Concrete (ACI 318-95) and Commentary (ACI 318R-95)

Instructor: Dr. Irtishad Ahmad, Professor
Telephone: (305) 348-3045, Fax: (305) 348-2802

E-Mail: ahmad@eng.fiu.edu

Studio Time: Monday and Wednesday, 19:50–22:30

Topics:

1. Materials
2. Flexural analysis of beams
3. Design of rectangular beams and one-way slabs
4. Analysis and design of T beams and doubly reinforced beams
5. Shear and diagonal tension
6. Bond, development length and splices
7. Serviceability
8. Introduction to columns
9. Design of short columns
10. Two-way slabs - Direct Design Method
11. Footings

Grading Policy:

Midterm Exam	35%
Project	30%
Final Exam	35%

EGM 3520 – Engineering Mechanics of Materials
Term A
Reference # 3785, Section CA (North Miami Campus)
Reference # 3786, Section DA (BCC Campus)
Reference # 3787, Section FA (UP Campus)
Reference # 3788, Section H1 (Off-campus)

Course Description: Analysis of axial, torsional, bending, combined stresses and strains. Plotting of shear, moment and deflection diagram with calculus applications and interpretations. Prerequisite: MAC 2313, MPA 2302 and EGN 3311 with a grade of 'C' or better. 3 credit hours.

Textbook: Mechanics of Materials, 2nd Edition, 1992, by Ferdinand P. Beer and E. Russell Johnson, Jr., McGraw-Hill Book Company.

Instructor: Dr. Ton-Lo Wang, Professor
Telephone: (305) 348-3054, Fax: (305) 348-2802

E-Mail: wangt@eng.fiu.edu

Studio Time: Monday and Wednesday, 9:30–12:15

Topics:
1. Introduction
2. Stress and strain axial loading
3. Torsion
4. Pure bending
5. Traverse loading
6. Transformation of stress and strain
7. Design of beams
8. Deflection of beams
9. Energy methods
10. Columns

Grading:

Class Performance	5%
1st Exam	45%
2nd Exam	50%

ENV 4351 – Solid Waste Management
Term A
Reference # 3789, Section CA (North Miami Campus)
Reference # 3790, Section DA (BCC Campus)
Reference # 3791, Section FA (UP Campus)
Reference # 3792, Section H1 (Off-campus)

Course Description:	Sources, amounts and characteristics of solid wastes; municipal collection systems; method of disposal; energetic consideration in the recovery and recycle of wastes. Prerequisites: PHY 2049 Physics II with Calculus and CHM 1046 and CHM 1046L General Chemistry II and Lab. 3 credit hours.
Textbook:	TBA
Instructor:	Dr. Walter Tang, Assistant Professor Telephone: (305) 348-3046, Fax: (305) 348-2802
E-Mail:	tangz@eng.fiu.edu
Studio Time:	Tuesday and Thursday, 9:30-12:15
Topics:	TBA

ENV 5930 – Special Topics: Indoor Air Quality
Term A
Reference # 3826, Section H1

Course Description:	TBA
Textbook:	TBA
Instructor:	Dr. Wolfgang Rogge, Assistant Professor Telephone #: (305) 348-6755, Fax: (305) 348-2802
E-Mail:	rogge@eng.fiu.edu
Studio Time:	Monday and Wednesday, 19:50-22:30
Topics:	TBA

CES 4605 – Steel Design
Term B
Reference # 3798, Section CA (North Miami Campus)
Reference # 3799, Section DA (BCC Campus)
Reference # 3800, Section FA (UP Campus)
Reference # 3801, Section H1 (Off-campus)

Course Description: The analysis and design of structural elements and connections for buildings, bridges, and specialized structures utilizing structural steel. Both elastic and plastic designs are considered. 3 credit hours.

Textbooks: American Institute of Steel Construction, *Manual of Steel Construction: Load and Resistance Factor Design. Volume I: Structural members, Specifications and Codes*, 2nd Edition, AISC, 1998.

William T. Segui, *LRFD Steel Design*, 2nd Edition, PWS Publishing, New York, NY, 1995.

Instructor: Dr. Nestor Gomez, Visiting Professor
Telephone #: (305) 348-3144, Fax: (305) 348-2802

E-Mail: ngomez@eng.fiu.edu

Studio Time: Tuesday and Thursday, 18:25-21:05

Topics:
1. Design philosophy, loadings
2. Tension members
3. Compression members
4. Beams
5. Bending and axial force
6. Connections
7. Composite design

CGN 4930 – Special Topics: Statics
Term B
Reference # 3825, Section CA (North Miami Campus)
Reference # 3802, Section DA (BCC Campus)
Reference # 3803, Section FA (UP Campus)
Reference # 3804, Section H1 (Off-campus)

Course Description: Topics covered in this course are forces on particles, equilibrium of forces, moments, couples, centroids, section properties, and load analysis of structures. Prerequisites: MAC 2312 Calculus II and PHY 2048 Physics with Calculus I. 3 credit hours.

Textbook: Hibbeler, R.C., "Engineering Mechanics: Statics", 8th Edition, Prentice-Hall, 1998.

Instructor: Ms. Beth Pascual, Instructor
Telephone #: (305) 348-3813, Fax: (305) 348-3582

E-Mail: beth@eng.fiu.edu

Studio Time: Monday and Wednesday, 9:30-12:15

Grading: Grades will be assigned according to the percentage of the points obtained during the semester.

Midterm Exam – 100 points
Quizzes (12) – 25 points each
Final Exam, Part 1 – 100 points
Final Exam, Part 2 – 100 points

CGN 4930 – Special Topics: Dynamics
Term B
Reference # 3794, Section CB (North Miami Campus)
Reference # 3795, Section DB (BCC Campus)
Reference # 3796, Section FB (UP Campus)
Reference # 3797, Section H2 (Off-campus)

Course Description: This course is intended as an introduction and a practical guide to the study of dyamics. Dynamics is the study of how objects and particles move. Kinematics relates position, velocity and acceleration without regards to the cause of such motion. Kinetics, on the other hand, is used to study how the mass of an object and forces acting on the object affect its motion. Calculus and vector arithmetic will be the primary mathematical devices in our study of dynamics.

Textbook: Russell C. Hibbeler, *Engineering Mechanics: Dynamics*, 8th Edition, Prentice-Hall, Upper Saddle River, NJ, 1998.

Instructor: Dr. Nestor Gomez, Visiting Professor
Telephone #: (305) 348-3144, Fax: (305) 348-2802

E-Mail: ngomez@eng.fiu.edu

Studio Time: Tuesday and Thursday, 9:30-12:15

Topics:

1. Rectilinear kinematics of particles
2. Curvilinear motion of particles
3. Components of motion
4. Dependent motion
5. Newton's Laws
6. Equations of motion
7. Work and kinetic energy
8. Work and energy for system of particles
9. Conservation of energy
10. Impulse and momentum
11. Impact
12. Steady fluid streams
13. Kinematics of rigid body
14. Translation and rotation
15. General plane motion

Department of Construction Management

(305) 348-3172
Fax (305) 348-2766

Jose D. Mitrani, Chairman
(305) 348-3172

John M. Dye, Advisor
(954) 236-1506

Eugene D. Farmer, Advisor
(305) 348-3177

BCN 5716 - Productivity in Construction
Term A
Reference # 0244, Section H1

Course Description: The course will provide the student with knowledge of techniques that can be utilized to increase productivity in construction projects. While consideration will be given to human factors and organizational structure, the primary area considered will be on-site construction. Prerequisite: BCN 4612 Construction Cost Estimating II or equivalent. 3 credit hours.

Textbook: Adrian, J.J. & Adrian, D.J. (1995). Total Productivity and Quality Management for Construction. Stipes Publishing: Champaign, Illinois.

Instructor: TBA

Studio Time: Tuesday and Thursday, 19:10-21:50
FIU BCC Campus

Topics:

1. Current performance and standards. Characteristics of the industry.
2. Productivity from the owner's point of view. How or how not to get the project started and where to go for advice, help, and counsel.
3. Building productivity into project design. The role of the cost engineer or estimator in the design phase. The use of value engineering.
4. Company and job site organization and productivity. Productivity improvement in on-site construction viewed as a system.
5. Labor productivity standards. Use of standard data in estimating. The effect of overtime on productivity.
6. Discussion of planning the worksite. Personnel management and productivity. Motivation.
7. Time and motion studies.
8. Construction workers - physical, mental, and stress problems.
9. Pre-planning. Implementing a plan. Shaving costs or increasing productivity using a schedule.
10. Accounting systems.

11. Learning curves. Measuring against estimates.
12. Safety and productivity. TQM and construction projects.

BCN 5772 – Management of Construction Organizations
Term A
Reference # 0257, Section H1

Course Description:	This course studies the management of a construction company. Topics included are the following: company organization, incorporation structures, policies and procedures, finance, accounting, information modeling, bidding strategies, and operation. 3 credit hours.
Textbook:	TBA
Instructor:	Dr. Kenneth Carpenter, Associate Professor Telephone: (954) 236-1506, Fax: (954) 236-1598
E-Mail:	carpente@eng.fiu.edu
Studio Time:	Monday and Wednesday, 19:10-21:50 FIU BCC Campus
Topics:	TBA

BCN 6935 – Seminar on Construction Management
Term A
Reference # 0269, Section H1

Course Description:	Advanced study of problems, trends, and issues in a time of rapid change in building and management technology. Topics selected or developed by class.
Textbook:	TBA
Instructor:	Dr. Kenneth Carpenter, Associate Professor Telephone #: (305) 348-3541, Fax #: (305) 348-2766
E-Mail:	carpente@eng.fiu.edu
Studio Time:	Tuesday and Thursday, 18:25-21:05
Topics:	TBA

BCN 5022 – Housing for Developing Countries
Term B
Reference # 0240, Section H1

Course Description: The course identifies and analyzes multidisciplinary elements having a role in the provision of adequate housing for growing populations in developing countries. Political, economic, social, anthropologic and technical considerations are all essential in the decision process. 3 credit hours.

Textbook: TBA

Instructor: Ricardo Alvarez, Adjunct Instructor
Telephone: (305) 348-1607

Studio Time: Monday and Wednesday, 19:10-21:50
FIU BCC Campus

Topics:

1. Housing production
2. Management of housing needs
3. The role of government and private sectors and their potential partnerships
4. Ownership
5. The implementation of housing policies that support hazard mitigation and sustainable development

BCN 5747 – Construction Law Case Studies
Term B
Reference # 0250, Section H1

Course Description: Case study and analysis of reported appellate decisions on common construction law issues; licensing; bid disputes; contract issues; construction lien law; surety problems; and unresolved claims. 3 credit hours.

Textbook: Students are required to have a legal dictionary. There will be assigned cases and occasional handouts.

Instructor: Professor Brandt
Telephone: (954) 236-1506

Studio Time: Tuesday and Thursday, 19:10-21:50
FIU BCC Campus

Topics:

1. Introduction to legal systems and the piece of construction law in it. How to find cases and how to read them. Introduction to the reporter system.
2. Implied contract terms
3. Cost plus contracts
4. Employer/employee or independent contractor
5. Flow down causes
6. Differing conditions
7. Extras and modifications procedure
8. Time of performance/scheduling and liquidated damages.
9. No damages for delay and limitation of liability exculpatory clauses.
10. Termination procedure
11. Changes and extra - generally
12. Ambiguities and conflicts in drawings/specifications: cardinal change.
13. Nonperformance of the contract; procedure to complete defaulted jobs. Damages for breach substantial performance doctrine.
14. Contract claim defenses
15. Negligence - no economic loss; architect/engineer negligence.

BCN 5771 – Management and Marketing of Construction Services
Term B
Reference # 0255, Section H1

Course Description:	Human effectiveness in marketing construction management services in the public and private sectors. 3 credit hours.
Textbook:	Construction Marketing and Strategic Planning by Warren Friedman, McGraw-Hill.
Instructor:	Dr. Young Kwak, Assistant Professor Telephone: (305) 348-3654, Fax: (305) 348-6255
E-Mail:	kwak@eng.fiu.edu
Studio Time:	Monday and Wednesday, 18:25-21:05
Topics:	TBA

BCN 5728 – Principles of Construction Scheduling
Term C
Reference # 0246, Section H1

Course Description: The application of the Critical Path Method and Program Evaluation Review Technique to construction planning, scheduling vs. actual job expenditures. Cost forecast development of unit prices from field data. Laboratory is included which consists of computer applications. 3 credit hours.

Textbook: TBA

Instructor: Professor Muscarella
Telephone #: (305) 348-3172

Studio Time: Saturday, 8:30-11:10

Topics: TBA

BCN 5766 – Codes and Regulations
Term C
Reference # 0252, Section H1

Course Description:	Study of building codes required by local, county, and state levels and their relation to quality control. 3 credit hours.
Textbook:	TBA
Instructor:	Professor Rosendo Prieto, Adjunct Telephone #: (305) 348-3172
Studio Time:	Saturday, 11:30-14:10
Topics:	TBA

Department of Electrical & Computer Engineering

(305) 348-2807
Fax (305) 348-3707

Dr. Malek Adjouadi, Acting Chairman
(305) 348-3027

Tom Gilbar, Undergraduate Advisor
(305) 348-2946

Dr. Pierre Schmidt, Graduate Advisor
(305) 348-2935

EEL 4213 - Power Systems I
Term A
Reference # 3779, Section H1

Course Description: Introductory course to power systems components; transformer, induction machines, synchronous machines, direct current machines, and special machines. Prerequisites: EEL 4410 Introduction to Fields. 3 credit hours.

Course Format: This course will be offered via Asynchronous Learning Network (Distance Learning). Lectures will be videotaped and/or conducted in a studio equipped with two-way audio/video facilities for live interaction. The course has an extensive web site at **(http://aln1.eng.fiu.edu/courses/)** where students taking the course off-campus can get access to a variety of information relating to the course and the lab. This includes lecture notes, homework, exams, grades, interactive simulations, animation, audio/video streaming, and access to the instructor's virtual office where you can get samples of past exams, quizzes and their solution. You can also get access to past student projects. The course also includes a communication forum where a student can ask questions and get answers, communicate with other students in class; not only with text messages but also with complete graphical interface. Any registered student with an Internet access and a web browsing computer from home or work can get access and be in this virtual classroom 24 hours a day.

Textbook and Notes:

1. Electromechanical Energy Devices and Power Systems by Yamayee & Bala, Wiley, 1994.
2. Selected lecture notes (audio, video and in print) and other demonstration material and examples will be made available at the above Web site.
3. Solutions to homework problems will be placed at the reserve desk in the University Park library.

Instructor: Dr. Osama A. Mohammed, Professor
Tel: (305) 348-3040 (Office), (305) 348-3918 (Lab)

E-Mail: mohammed@servms.fiu.edu

Web Site: Students are required to visit this designated web site at least two times a week for information, details and announcements.

Http://aln1.eng.fiu.edu/courses/eel4213
Course Registration and Password Required

Studio Time: Monday through Thursday, 17:00-18:15

Absence: Class attendance (physical or virtual) is very important and is considered in your overall performance in the course. Students are responsible for all material covered in the class.

Grading Policy: All tests and final exam are closed book, closed notes. THE FINAL EXAM IS A COMPREHENSIVE ONE. Homework will be assigned regularly, collected and graded. Efforts in homework indicate that you are studying and caring about the course and therefore can have an impact on your final grade. Time for each of the two tests will be announced one week in advance. **Any work submitted must be neat and detailed for partial marks. Points will be taken off for sloppy work.** Your grade will be calculated as follows:

Homework	10%	Web Quizzes	5%
Test 1	15%	Project	25%
Test 2	15%	Final Exam	30%

Term Project: During the semester you will be assigned a design project. The project will be done in teams of two students and will involve building, testing, modeling and analyzing an energy conversion system used in a practical device. The project will also involve economic studies, decision making, as well as demonstrative presentations. Students will submit a proposal for review based on a call for proposals given by the instructor. Once the student's

proposals are accepted, progress reports (written and/or oral) are required. Final presentation (oral and written) of the overall project results and hardware test will be required. Students are encouraged to discuss their projects with the instructor.
Teaming and procedures for the design project will be given to you and discussed in class.

Topics:

1. Introduction to power systems and its overall operation
2. Complex power, consumer notation, per unit system, single and three phase calculations, power factor correction
3. Magnetic circuits and transformers
4. Transformers operations, connections, equivalent circuits, testing and practical use
5. Three phase transformers, special transformers and advanced topics
6. AC machine concepts
7. Synchronous machines, operation, excitation, equivalent circuits, testing and practical use
8. Direct current machines, operation, connections, equivalent circuits, control and applications
9. Induction machines, models, equivalent circuits, control and applications
10. Single phase machines, special machines and applications

EEL 5741 – Advanced Microprocessor Systems
Term A
Reference # 3780, Section H1

Course Description:	Interfacing of various microprocessors together. Concepts of master-slave systems, virtual memory and I/O control techniques. Digital system evaluation and optimization. 3 credit hours.
Textbook:	TBA
Instructor:	Dr. Subbarao Wunnava, Professor Telephone: (305) 348-3018, Fax: (305) 348-3707
E-Mail:	subbarao@eng.fiu.edu
Studio Time:	Monday through Thursday, 15:30-16:45
Topics:	TBA

Department of Industrial & Systems Engineering

(305) 348-2256
Fax (305) 348-3721

Dr. Ted Lee, Chairman and
Engineering Management Advisor
(305) 348-2256

Dr. Sergio Martinez, Undergraduate Advisor
(305) 348-3454

Dr. Marc Resnick, Graduate Advisor
(305) 348-3537

EGN 5435 – Product Modeling
Term A
Reference # 1276, Section H1

Course Description:	Life cycle product data, geometry and form features, product information models and modeling techniques, product modeling systems, and product data standards. 3 credit hours
Textbook:	TBA
Instructor:	Dr. Chin-Sheng Chen, Professor Telephone #: (305) 348-3753, Fax #: (305) 348-3721
E-Mail:	chen@eng.fiu.edu
Studio Time:	Monday and Wednesday, 17:00-19:40
Topics:	TBA

EIN 6357 – Advanced Engineering Economy
Term A
Reference # 1302, Section H1

Course Description: Review of engineering economy and the evaluation of advanced manufacturing systems. Evaluation of alternative capital investments considering income taxes, depreciation, inflation, risk and uncertainty. 3 credit hours

Textbook: Wolter J. Fabrycky and Benjamin S. Blanchard, *Life-Cycle Cost and Economic Analysis*, Prentice-Hall, 1991.

Instructor: Dr. Shih-Ming Lee, Associate Professor and Chairman
Telephone: (305) 348-2256, Fax #: (305) 348-3172

E-Mail: leet@eng.fiu.edu

Studio Time: Tuesday and Thursday, 17:00-19:40

Topics:

1. System life-cycle concepts
2. Economic and cost concepts
3. Interest formulas and equivalence
4. Alternatives and decision making
5. Decision Evaluation Theory
6. Life-cycle costing methodology
7. Estimating cost and economic elements
8. Evaluating errors in estimating
9. Life-cycle economic evaluations
10. Life-cycle optimization of alternatives
11. Life-cycle cost in program evaluation

EIN 5106 – Regulation in Engineering
Term B
Reference # 1297, Section H1

Course Description:	Review of engineering economy and the evaluation of advanced manufacturing systems. Evaluation of alternative capital investments considering income taxes, depreciation, inflation, risk and uncertainty. 3 credit hours
Textbook:	TBA
Instructor:	Dr. Marc Resnick, Associate Professor Telephone: (305) 348-3537, Fax #: (305) 348-3172
E-Mail:	resnick@eng.fiu.edu
Studio Time:	Monday and Wednesday, 17:00-19:40
Topics:	TBA

EIN 5226 - Total Quality Management
Term C
Reference # 1299, Section H1

Course Description: Fundamentals of TQM and its historical development. Integration of QC and management tools, QFD, benchmarking, and experimental design for scientific management. 3 credit hours

Textbook: Introduction to Quality Management for Production, Processing and Services by Goetsch and Davis.

Instructor: Leonard Kaufman, Adjunct Instructor
Telephone: (305) 687-0182

Studio Time: Thursday, 19:50-22:30

Topics:

1. Introduction to modern quality concepts
2. Fundamentals of quality management
3. TQM concepts: Management commitment, focus on customer, employee involvement, and measures of performance
4. TQM s. Traditional Management
5. The quality philosophers: Shewhart, Deming, Juran, and Crosby
6. Designing organizations for quality teamwork
7. Basic quality control tools. Control charts for attributes and for variables.
8. QFD
9. Experimental design in TQM
10. Quality awards
11. Quality certification, ISO 9000
12. Benchmarking and special topics

Department of Mechanical & Chemical Engineering

(305) 348-2569
Fax (305) 348-1932

Dr. Richard K. Irey, Chairman
(305) 348-6006

Carmen Schenck, Undergraduate Advisor
(305) 348-4183

Dr. Tachung Yih, Graduate Advisor
(305) 348-3140

EGM 5935 - Review of Topics in Mechanical Engineering
Reference # 3807, Section H1

Course Description: To prepare qualified candidates to take Mechanical Engineering P.E. written examination. Reviewed courses include Thermodynamics, Fluid Mechanics, Mechanics of Materials, Mechanical Design and Heat Transfer. 4 credit hours.

Textbook: No textbook is required for this course. Handouts will be made available to students.

Coordinator: Dr. Richard K. Irey, Professor and Chairman
Telephone: (305) 348-1701, Fax: (305) 348-1082

Studio Time: Tuesday 18:30 - 21:30

Topics:

1. Fluid mechanics
2. Machine design
3. Thermodynamics
4. Power systems
5. Vibrations
6. Heat transfer
7. HVAC
8. Engineering economics
9. Control

EGN 5990 - Fundamentals of Engineering Review
Reference # 3808, Section H1

Course Description: To prepare graduating seniors and professionals to pass the state Professional Engineer's Examination for the Engineer-in-Training examination part. 4 credit hours.

Textbook: No textbook is required for this course. Handouts will be made available to students.

Coordinator: Dr. Richard K. Irey, Professor and Chairman
Telephone: (305) 348-1701, Fax: (305) 348-1082

Studio Time: Monday and Wednesday, 18:25 - 21:05

Topics:

1. Math
2. Materials in engineering
3. Statics
4. Dynamics
5. Thermodynamics
6. Fluid mechanics
7. Mechanics of materials
8. Chemistry
9. Electrical engineering
10. Economics
11. Practice exam

Summer 1999

Proposed Course Offerings

Short Courses
And
Seminars

Civil & Environmental Engineering

Electrical & Computer Engineering

Professional Engineer Civil Review Seminar

Description: This non-credit seminar prepares qualified candidates to take the Civil Engineering P.E. written examination.

Textbook: No textbook is required for this course. Handouts will be provided to students.

Topics:

1. Determinate structural analysis
2. Steel design
3. Indeterminate structural analysis
4. Reinforced concrete
5. Wood/masonry/lateral forces
6. Highway engineering
7. Transportation engineering
8. Soils and foundation engineering
9. Hydraulics: pipes & applications
10. Hydraulics: open channels
11. Water supply treatment
12. Waste water treatment

Registration Fee: The registration fee for this review seminar is $573.00. State tuition waivers are not accepted.

To obtain a registration form for this seminar, please call (305) 348-2801.

Professional Engineer Electrical Review Seminar

Description: This non-credit seminar prepares qualified candidates to take the Electrical Engineering P.E. written examination.

Textbook: No textbook is required for this course. Handouts will be provided to students.

Instructor: Dr. Manuel R. Cereijo, Professor
Telephone: (305) 348-3710

Topics:

Part I:

1. Electric circuits
2. Electronics
3. Control systems

Part II:

1. Communication systems
2. Transmission lines
3. Power systems and transformers

Registration Fee: The registration fee for each part of this review seminar is $285.00. State tuition waivers are not accepted.

To obtain a registration form, please call (305) 348-2801.

STATEWIDE PROPOSED COURSE OFFERINGS
SUMMER 1999

The Florida Engineering Education Delivery System is a cooperative effort among the State of Florida Universities to provide engineering education to the working student. FEEDS works with industrial and cooperating centers to deliver courses to sites throughout Florida.

The list below shows courses that are offered for possible delivery via FEEDS for the Summer 1999 semester. **Not all of these will be delivered!** The courses for which there is greater demand, based on the number of students registered prior to **April 7**, will be given priority for delivery. Students registered for classes that are canceled will be given the opportunity to register for other courses or to request a refund of tuition and fees. Course offerings are subject to change. All courses listed are three semester hours unless otherwise indicated.

For additional information, contact your site coordinator or one of the University Centers.

Cooperating Centers

Florida Gulf Coast University	(941) 590-1015
University of North Florida	(904) 620-2695
University of West Florida	(850) 474-2922

Florida A&M University/Florida State University

Braketta Ritzenthaler
(850) 410-6494
braketta@eng.fsu.edu

Electrical Engineering

EEL	3112	Advanced Circuits	Simons
EEL	4930/5930-1	Advanced Topics	Arora
EEL	4930/5930-2	DSPμ Based Design	Simons
EEL	4930/5930-2	Feedback Amplifiers	Thagard

Florida Atlantic University

Arlene Gault
(561) 297-3578
agault@fau.edu

Civil Engineering

Summer A

CWR 6125	Groundwater Flow	Scarlatos
CWR 6234	Dynamics of Sed Transport	Scarlatos
CEG 6105	Foundation Engineering	Reddy

Summer C

CES 6325	Bridge Design	Arockiasamy

Computer Science and Engineering

Summer A

CEN 5502	Computer Communication Networks	Ilyas

Summer C

CEN 6080	Software Eng Measurements	Khoshgoftaar
COP 6726	New Dir/Database System	Solomon

Electrical Engineering

Summer C

EEL 6935	ATM Telecommunication	Neelakanta

Mechanical Engineering

Summer C

EML 6271	Advanced Engineering Dynamics	Gaonkar

Manufacturing Systems Engineering

Summer C

ESI 6222	Inspection, Quality Control & Reliability	Han

Ocean Engineering

Summer C

EOC 6416	Plastic Analysis of Structure	Yong

Florida International University

Mercy Cruz
(305) 348-2801
mercy@eng.fiu.edu

Civil & Environmental Engineering

Summer A

CES 4702	Reinforced Concrete Design	Ahmad
EGM 3520	Engineering Mechanics of Materials	Wang
ENV 4351	Solid Waste Management	Tang
ENV 5930	Special Topics: Indoor Air Quality	Rogge
ENV 5930	Special Topics: Resource Recovery Eng	Fuentes

Summer B

CES 4605	Steel Design	Gomez
CGN 4930	Special Topics: Dynamics	Gomez
CGN 4930	Special Topics: Statics	Pascual

Summer C

P.E. Civil Review Seminar		CE Faculty

Construction Management

Summer A

BCN 5716	Productivity in Construction	TBA
BCN 5772	Management of Construction Organizations	Carpenter
BCN 6935	Seminar on Construction Management	Carpenter

Summer B

BCN 5022	Housing for Developing Countries	Alvarez
BCN 5747	Construction Law Case Studies	Brandt
BCN 5771	Mgmt and Mrktng of Construction Services	Kwak

Summer C

BCN 5728	Principles of Construction Scheduling	Muscarella
BCN 5766	Codes and Regulations	Prieto

Electrical & Computer Engineering

Summer A

EEL 4213	Power Systems I	Mohammed
EEL 5741	Advanced Microprocessor Systems	Wunnava

Summer C

P.E. Electrical Review Seminar		Cereijo

Industrial & Systems Engineering

Summer A

EGN 5435	Product Modeling	Chen
EIN 6357	Advanced Engineering Economy	Lee

Summer B

EIN 5106	Regulation in Engineering	Resnick

Summer C

EIN 5226	Total Quality Management	Kaufman

Mechanical Engineering

Summer C

EGM 5935	PE Mechanical Review Course	Faculty
EGN 5990	FE Review Course	Faculty

University of Central Florida

Naomi Morris
(407) 823-3814
nmorris@pegasus.cc.ucf.edu

Civil & Environmental Engineering

CES 6910	Research in Structural Engineering	Kunnath
CWR 6125	Groundwater Hydrology	Staff
ENV 5505	Sludge Management Operations	Dietz
TTE 5835	Pavement Design	Staff

Electrical & Computer Engineering

EEL 4205	Electric Machinery	Vaidya
EEL 5448	Fundamentals of Optoelectronic Devices	Likamwa
EEL 5513	Digital Signal Processing Application	Hakami
EEL 5542	Random Processes I	Georgiopoulos
EEL 5704	CAD Logical Designs	Petrasko
EEL 5874	Expert Systems & Knowledge Engineering	Gonzalez
EEL 6488	Electromagnetic Fields	Wahid
EEL 6885	Software Eng Quality Assurance Methods	Zalewski

Industrial Engineering & Management Systems

EIN	5108	Environment of Technical Organizations	Ragusa
EIN	5117	Management Information Systems I	Williams
EIN	5356	Cost Engineering	Lewis
EIN	5602	Expert Systems in Industrial Engineering	McCauley-Bell
EIN	6270	Work Physiology	Lee
EIN	6322	Engineering Management	Kulonda
EIN	6357	Advanced Engineering Economic Analysis	Kulonda
EIN	6647	Intelligent Simulation	Williams
ESI	4312	Operations Research	Hosni
ESI	5419	Engineering Applications of Linear & Nonlinear Optimization	Pet-Edwards
ESI	6358	Decision Analysis	Armacost
STA	5156	Probability and Statistics for Engineers	Staff

Mechanical Materials & Aerospace Engineering

EMA	5326	Corrosion Science & Engineering	Seal
EML	5152	Intermediate Heat Transfer	Kassab
EML	5311	System Control	Johnson
EML	5546	Engineering Design Composite Materials	Nayfeh
EML	6068	Finite Elements II	Nicholson

Engineering Technology

These are undergraduate courses & will not count towards a graduate degree

EET	3716	Network Analysis	Coowar
ETI	2110	Industrial Quality Control	Rogers
ETI	3671	Technical Economic Analysis	Morse
ETI	3930	Applied Project Management	Morse
ETI	4700	Occupational Safety	Rogers
MAP	3401	Problem Analysis	Osborne

University of Florida

Art Zirger
(352) 392-9672
feeds@eng.ufl.edu

Computer & Information Science & Engineering

Summer A

COT	6315	Formal Languages & Computation Theory	Staff

Aerospace Engineering, Mechanics & Engineering Science

Summer C

EGM 6323	Principles of Engineering Analysis III	Kurzweg

Civil Engineering

Summer C

CES 6551	Design of Folded Plates and Shells	Lybas
TTE 5255	Basic Traffic Signal Operation (1)	Courage

Computer & Information Science & Engineering

Summer C

COP 5555	Programming Language Principles	Bermudez
COP 5615	Operating System Principles	Chow

Electrical & Computer Engineering

Summer C

EEL 5544	Noise in Linear Systems	Rainbolt
EEL 5701	Foundations of Digital Signal Processing	Taylor
EEL 5718	Computer Communications	Latchman
EEL 6935	Computer Networks	George

Mechanical Engineering

Summer C

EML 6717	Thermodynamics of Fluid Flow I	Roan

University of South Florida

Sally Szydlo
(813) 974-3783
szydlo@eng.usf.edu

Undergraduate Courses

EGN 3353	Basic Fluid Mechanics	Young
EGN 3343	Engineering Statistics I	Gooding
EIN 4933	Engineering Safety Systems	Okogbaa
EIN 4933	ISO 9000/14000	Callahan
EIN 4933	Occupational Safety Eng.	McCright
EIN 4933	TQM Seminar	Busansky
ENV 4933	Natural and Small Scale Treatment Sys.	Smith

Graduate

Civil & Environmental Engineering

ENV	5933	Natural and Small Scale Treatment Systems	Smith

Electrical Engineering

EEL	5935	Digital Systems Design	Lala
EGN	5424	Eng. Application of Complex Analysis	Snider

Industrial & Management Systems Engineering

EIN	6215	Occupational Safety Engineering	McCright
EIN	6216	Engineering Systems Safety	Okogbaa
EIN	6934	TQM Seminar	Busansky
EIN	6935	ISO 9000/14000	Callahan
EIN	6936	Project Management	Okogbaa
ESI	5219	Statistical Engineering Management	Gooding

FEEDS REGISTRATION SCHEDULE
SUMMER 1999

March 30 11:45-12:45	NADEP/JAX Jacksonville	Luis Carney (904) 772-4519
March 30 2:30-3:30	NADEP/OLD JEA Jacksonville	James Dixon (904) 772-2345
March 30 5:00-7:00	University of North Florida Jacksonville	Don Farshing (904) 620-2695
March 31 5:30-7:00	Florida Gulf Coast University Fort Myers	Walter Rodriguez (941) 590-7309
April 5 8:00-8:30	Florida Power & Light Turkey Point	John Mook (305) 264-6444
April 5 9:30-11:00	Beckman-Coulter Kendall	Carlos Centurion (305) 380-3498
April 5 1:00-2:00	Florida Power & Light Miami	Mike Whalin (305) 552-3328
April 6 9:00-10:30	Motorola Plantation	Connie Sokolowski (954) 723-4311
April 6 11:15-11:45	Encore/Sun Microsystems Plantation	Susan Copeland (954) 797-5737
April 6 2:00-3:30	Motorola Boynton Beach	Mary Harry (561) 739-2929
April 6 4:30-5:00	South Florida Water Mgmt Dist West Palm Beach	Beth McArdle (561) 687-6665
April 7 10:30-12:30	Pratt and Whitney Jupiter	Michael Bishop (561) 796-2921
April 7 3:45-4:30	HRS/Palm Beach Health Unit West Palm Beach	Selva Selvendran (561) 355-4550

April 8 8:30-9:30	Florida Power & Light Juno Beach	Marcia Steadwell (561) 694-3277
April 8 11:15-12:00	Florida Power & Light St. Lucie	Wayne Wicks (561) 465-3550
April 8 3:30-5:00	Harris Corporation Palm Bay	Candace Parslow (407) 727-5902
April 14 1:30-3:00	Siemens Boca Raton	Jutta Panella (561) 955-6645
April 15 1:30-2:30	Nortel Sunrise	Susanna Paz (954) 858-7095

CONTACT INFORMATION

Civil & Environmental Engineering	
Irtishad Ahmad	(305) 348-3045
Nestor Gomez	(305) 348-3144
Beth Pascual	(305) 348-3813
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Ton-Lo Wang	(305) 348-3054
Construction Management	
Ricardo Alvarez	(305) 348-1607
Professor Brandt	(954) 236-1506
Kenneth Carpenter	(305) 348-3541
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Richard Irey	(305) 348-1701

FEEDS OFFICE
(305) 348-2801

ADMISSIONS OFFICE
(305) 348-2363

CASHIER'S OFFICE
(305) 348-2126

REGISTRATION & RECORDS
(305) 348-2392

NOTES

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