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Graduate Programs—PROGRAM CI	HANGE REQUEST	CATALOG	
DEPARTMENT: CIVIL, ENVIRONMENTAL AND GEOMATICS ENGINEERING (CEGE)	COLLEGE: ENGINEERING AND COMPUTER SCIENCE		
PROGRAM NAME:		EFFECTIVE DATE  (PROVIDE TERM/YEAR)	
BS-MS PROGRAMS IN THE CIVIL, ENVIRONMENTAL AND GEOMATICS ENGINEERING DEPARTMENT		FALL 2016	
PLEASE EXPLAIN THE REQUESTED CHANGE(S) AND OFFER RATIONALE BELOW AND/OR ATTACHED:			
TO SATISFY SACS REQUIREMENTS, THE FOLLOWING CHANGES WERE MADE:  • MS PROGRAMS MUST CONTAIN AT LEAST 30 CREDITS OF 5000 AND 6000 LEVEL COURSES  • FOR THE COMBINED BS AND MS PROGRAMS, UP TO 9 CREDITS CAN BE DOUBLE COUNTED AS LONG AS THE FOLLOWING TWO CRITERIA ARE MET: A) MINIMUM 120 CREDITS FOR BS DEGREE, AND B) MINIMUM 30 CREDITS (5000-LEVEL OR HIGHER) FOR MS DEGREE.  THEREFORE A MAXIMUM OF 9 CREDITS CAN BE DOUBLE COUNTED IF THE MINIMUM NUMBER OF CREDITS FOR THE COMBINED BS AND MS EXCEED 150 CREDITS.  APPROVED BY GRADUATE COMMITTEE (CEGE 2/25; COLLEGE GRADUATE COMMITTEE 2/25			
Faculty contact, email and complete phone number: Consult Frederick Bloetscher, Ph.D., P.E.	Consult and list departments that might be affected by the change and attach comments.		
239-250-2423 None			
Approved by:	BOOKER WITH COMMENT OF THE COMMENT O	Date:	
Department Chair:		<u>2/25/2016</u>	
College Curriculum Chair:	<u> </u>	2/25/2016	
College Dean:	0 0 000	2/5/w/L	
Bello DV	Name of 1th	11-6-616	
Graduate College Dean:	The same	7 6 70	

Email this form and syllabus to  $\underline{\textit{UGPC@fau.edu}}$  one week before the University Graduate Programs Committee meeting so that materials may be viewed on the UGPC website prior to the meeting.

UFS President:

Provost:

### COMBINED DEGREE PROGRAM

## B.S.C.V. to M.S. Degree Program

With an approximate duration of five years, the combined Bachelor of Science in Civil Engineering to Master of Science program provides an attractive way for students to continue their graduate work. After application and admittance to the graduate program at the beginning of their senior year, up to nine credits of approved graduate-level courses may be taken and counted toward both the B.S. and M.S. degrees as long as the following two criteria are met: (a) minimum 120 credits for B.S. degree, and (b) minimum 30 credits (5000-level or higher) for M.S degree. Therefore a maximum of 9 credits can be double counted if the number of credits for both BS and MS exceeds 150. Students are permitted to count 6 credits of approved undergraduate coursework toward both their B.S.C.V. and M.S. degrees. One of the three-courses must be at the graduate level.

## Prerequisite Coursework for Transfer Students

Students transferring to Florida Atlantic University must complete both lower-division requirements (including the requirements of the Intellectual Foundations Program) and requirements for the college and major. Lower-division requirements may be completed through the A.A. degree from any Florida public college, university or community college or through equivalent coursework at another regionally accredited institution. Before transferring and to ensure timely progress toward the baccalaureate degree, students must also complete the prerequisite courses for their major as outlined in the *Transfer Student Manual*.

All courses not approved by the Florida Statewide Course Numbering System that will be used to satisfy requirements will be evaluated individually on the basis of content and will require a catalog course description and a copy of the syllabus for assessment.

### To be eligible for the joint B.S.C.V./M.S. program, students must:

- 1. Have a cumulative GPA of 3.25 or higher (FAU and transfer courses);
- 2. Have a total institution GPA of 3.25 or higher (FAU courses); and
- 3. Formally apply to the joint program, completing the admissions process at least one semester prior to beginning the M.S. portion of the program.

### MASTER'S PROGRAM (Changes below effective fall 2015.)

# Master of Science with Major in Civil Engineering

The mission of the Master of Science with Major in Civil Engineering program is to meet the advanced civil engineering educational needs of recent graduates of undergraduate programs, practicing engineers and those non-engineering professionals wishing to redirect their career paths. Graduates of the program possess these attributes or educational outcomes:

- 1. Ability to apply knowledge in civil engineering and related subjects significantly beyond the baccalaureate level;
- 2. Ability to communicate ideas and results professionally in written, oral and graphical forms;
- 3. Ability to independently conduct research or solve a significant practice-oriented project in civil engineering.

These educational outcomes result from successful completion of a well-planned, rigorous set of courses and a major capstone experience (either a thesis or practice-oriented project).

Students wishing to continue their education but not pursue a formal academic degree are welcome to take graduate courses with the appropriate technical preparation.

## **Admission Requirements**

All students must comply with the College's admission requirements noted under the Master's Degree Program Information header above. Once students meet all College requirements, all applications are reviewed on a case-by-case basis. Students with non-engineering bachelor's degrees, click here for additional requirements. Students are normally admitted to the Master of Science in with Major Civil Engineering program if they:

- 1. Possess a baccalaureate degree in Civil Engineering or a closely related engineering field. Students with foreign credentials are required to have a general, not course-by-course, evaluation of their credentials. A GPA evaluation is not necessary. Foreign credentials are evaluated by an independent evaluation service that is a member of the National Association of Credential Evaluation Services (NACES). For a list of member evaluation services, please visit the NACES website.-international degrees must have their credentials evaluated by an approved evaluator. Contact the Graduate College for more information. Prospective students without an engineering degree will be evaluated on a case-by-case basis;
- 2. Have achieved a 3.0 (on a 4.0 scale) grade point average in the last 60 credits of undergraduate work;
- 3. Have achieved scores of at least 145 (verbal) and 150 (quantitative) on the Graduate Record Examination (GRE). GRE scores cannot be more than five years old and must be completed before admission to the program;
- 4. Have demonstrated proficiency in both written and spoken English. Students from non-English-speaking countries are required to take the Test of English as a Foreign Language (TOEFL) and achieve a score of 550 or 213 (computer-based);
- 5. Have provided three letters of recommendation attesting to the student's potential for graduate studies in civil engineering:
- Agree to abide by the graduate admission requirements of the University as published in the University Catalog;
- 6. Distance Learning students must comply with the College of Engineering and Computer Science Distance Education guidelines noted under the Master's Degree Program Information header above. As distance learning students, have indicated to the Department their intention to pursue a master's degree by the end of the third distance learning class taken at FAU.



Degree Requirements (Changes below effective fall 2015.)

The degree of Master of Science with major in Civil Engineering is awarded to the candidate who has:

- Complied with University graduate policies and regulations;
- Satisfied the University's graduate degree requirements;
- 3. 3. Satisfactorily completed the appropriate Plan of Study for the degree option selected.

## Plan of Study

A Plan of Study is a set of courses and a thesis or project activity chosen and completed in a sequence that meets the needs and interests of the individual student and the degree requirements and other stipulations of the University, College of Engineering and Computer Science and the department. Prior to or immediately

upon admission to the program, students should discuss their options with the graduate advisor for the department. There is no requirement for master's students to be full-time, nor is there an on-campus service requirement. The Plan of Study must be approved by the graduate advisor and the student's supervisory committee and the department no later than the end of the student's first semester in the program, regardless of the number of credits earned. After this time, modifications must be approved by the supervisory committee.

## **Degree Options**

Two options are available to students pursuing the M.S. in with Major Civil Engineering degree: the thesis option and the project option. Both options are described below. In each case, a minimum cumulative grade point average of 3.0 is required on all coursework attempted.

Master of Science with Major in Civil Engineering with Thesis (Total 30 credits)

- 1. Requires 6 credits of Master's Thesis, and
- 2. Requires 24 credits of approved coursework with the following constraints:
  - a. Minimum of 15 credits at the 6000 level;
  - b. Minimum of 12 credits of CEGE courses;
  - c. Maximum of 6-9 credits of CEGE courses at the 4000-5000 level may be applied toward the degree.

This degree requires a minimum of 30 credits: 24 credits of coursework following one of the program concentrations and a 6-credit thesis that is successfully completed and defended at an oral examination. Up to 6-credits may come from 4000-level undergraduate courses. All students receiving financial support from the department are required to complete the thesis option.

Master of Science with Major in Civil Engineering with Project (Total 33 credits)

- 1. Requires 3 credits of Master's Project, and
- 2. Requires 30 credits of approved coursework with the following constraints:
  - a. Minimum of 18 credits at the 6000 level;
  - b. Minimum of 21 credits in CEGE courses;
  - c. Maximum of 6-9 credits of CEGE courses at the 4000-5000 level may be applied toward the degree
  - d. Maximum of 3 credits of CEGE courses at the 4000 level may be applied toward the degree