



New Combined Degree Program Request

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New Combined Degree Program Request

Proposed Program: BSGE/MS with Major in Civil Engineering CIP: 14.3801 /14.08 Effective Date (Term/Year): Spring/2017 (e.g. Fall/2020)

Proposed Combined Program Information	Undergraduate	Graduate
Degree Level (e.g. B.A., B.S., M.A., M.S., etc.)	BSGE	MS with Major in Civil Engineering
Program Name (e.g. Physics, Engineering, etc.)	BS Geomatics Engineering	MS with Major in Civil Engineering
College	Engineering and Computer Science	Engineering and Computer Science
Department	Civil, Environmental & Geomatics Engineering	Civil, Environmental & Geomatics Engineering
Program Description (provide a brief description of the program, including thesis or non-thesis option)	The BSGE program is an ABET accredited engineering Bachelor's degree with emphasis on surveying, geographic information systems, photogrammetry, mapping, geodesy, remote sensing, satellite positioning, and other related fields. This leads perfectly to the Transportation/Geomatics engineering track offered in the MS with Major in Civil Engineering degree program that has thesis or project options. For more information, see attached catalog language and memo.	

Curriculum Requirements

GPA Requirements: Departments must establish a minimum undergraduate GPA for students to be admitted to a combined program. *Note: Please attach explanation.*

The College of Engineering and Computer Science has set a minimum GPA requirement for combined programs at 3.25.

List courses to be shared: Up to twelve (12) credit hours of graduate courses (5000 level or above course work) may be shared between the graduate and undergraduate degree for a combined program. *Note: Please attach explanation:*

- Academic justification for shared credits and catalog language
- List the undergraduate course that will be replaced by graduate courses.

Faculty Submitting Request	Name	Signature	Email	Date
	Daniel Meeroff		dmeeroff@fau.edu	10/13/16

Approved by	Date
Department Chair:	_____
College Dean: _____	_____
College Curriculum Chair:	_____
UUPC Chair: <input checked="" type="checkbox"/>	10/17/16
Undergraduate Studies Dean:	10/17/16
<small>(Note: Forward approved form to UGPC@fau.edu)</small>	_____
UGPC Chair: _____	_____
Graduate College Dean: _____	_____
UFS President: _____	_____
Provost: _____	_____



New Combined Degree Program Request

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New Combined Degree Program Request

Proposed Program: BSEV/MS with Major in Civil Engineering CIP: 14.1401 /14.08 Effective Date (Term/Year): Spring/2017 (e.g. Fall/2020)

Proposed Combined Program Information	Undergraduate	Graduate
Degree Level (e.g. B.A., B.S., M.A., M.S., etc.)	BSEV	MS with Major in Civil Engineering
Program Name (e.g. Physics, Engineering, etc.)	BS Environmental Engineering	MS with Major in Civil Engineering
College	Engineering and Computer Science	Engineering and Computer Science
Department	Civil, Environmental & Geomatics Engineering	Civil, Environmental & Geomatics Engineering
Program Description (provide a brief description of the program, including thesis or non-thesis option)	The BSEV program is an engineering Bachelor's degree prepare graduates to formulate material/ energy balances and analyze the fate and transport of substances in and between air, water, and soil; conduct laboratory experiments and analyze and interpret the resulting data in more than one major environmental engineering focus area, (e.g., air, water, land, environmental health); design environmental engineering systems with considerations of risk, uncertainty, sustainability, life-cycle principles, and environmental impacts. The curriculum prepares graduates to understand concepts of professional practice, project management, and the roles and responsibilities of public institutions and private organizations pertaining to environmental policy and regulations. This leads perfectly to the Water Resources/Environmental Engineering track offered in the MS with Major in Civil Engineering degree program that has thesis or project options. For more information, see attached catalog language and memo.	

Curriculum Requirements

GPA Requirements: Departments must establish a minimum undergraduate GPA for students to be admitted to a combined program. *Note: Please attach explanation.*

The College of Engineering and Computer Science has set a minimum GPA requirement for combined programs at 3.25.

List courses to be shared: Up to twelve (12) credit hours of graduate courses (5000 level or above course work) may be shared between the graduate and undergraduate degree for a combined program. *Note: Please attach explanation:*

- Academic justification for shared credits and catalog language
- List the undergraduate course that will be replaced by graduate courses.

Faculty Submitting Request	Name	Signature	Email	Date
	Daniel Meeroff		dmeeroff@fau.edu	10/13/16

Approved by	Date
Department Chair:	_____
College Dean:	_____
College Curriculum Chair:	_____
UUPC Chair: <input checked="" type="checkbox"/>	10/17/16
Undergraduate Studies Dean:	10/17/16
<small>(Note: Forward approved form to UGPC@fau.edu)</small>	
UGPC Chair: _____	_____
Graduate College Dean: _____	_____
UFS President: _____	_____
Provost: _____	_____



COLLEGE OF ENGINEERING & COMPUTER SCIENCE
Department of Civil, Environmental & Geomatics Engineering
777 Glades Road, Building 36, Room 206
Boca Raton, FL 33431
561.297.2658

October 3, 2016

TO: UUPC Chair and UGPC Chair
FROM: Dan Meeroff, Ph.D., College of Engineering and Computer Science UPC Chair
RE: Proposal for Combined Programs BSGE/MS and BSEV/MS

The Department of Civil, Environmental & Geomatics Engineering currently has a combined degree program for BSCV/MS with Major in Civil Engineering that is very successful at producing highly competent engineering graduates. The Department has two other Bachelor degree programs (BS Geomatics Engineering-BSGE and BS Environmental Engineering-BSEV) that feed into the Masters of Science (MS) with Major in Civil Engineering that has three tracks:

- 1) Structures/Geotechnical Engineering
- 2) Transportation/**Geomatics Engineering**
- 3) Water Resources/**Environmental Engineering**

The faculty of the Department support creating two new combined degree programs for the other two Bachelors of Science degree students in the Department (BS Geomatics Engineering-BSGE and BS Environmental Engineering-BSEV). These programs will allow high performing students in the BSGE and BSEV programs to pursue their Masters of Science (MS) degree with major in Civil Engineering at an accelerated pace under the same protocol and conditions as the existing BS Civil Engineering (BSCV) students adhere to. The current combined program is structured such that the integrity and quality of both degrees are preserved. For the new programs, this protocol remains the same: students will take up to 9 credits of 5000 level coursework during the BSGE or BSEV program. There are 5 courses that are currently offered regularly for these students to choose from to meet this criterion. Those courses cover advanced material to enrich the undergraduate curriculum with graduate level coursework from the existing MS with Major in Civil Engineering, maintaining the current pedagogical emphasis. To make sure that these programs are only for academically talented students, a minimum GPA requirement of 3.25 is put in place, as is current practice. The BSGE program is perfectly suited to prepare students for the MS with Major in Civil Engineering, Transportation/Geomatics Engineering track, and the BSEV program is ideally suited to prepare high achieving students for the MS with Major in Civil Engineering, Water Resources/Environmental Engineering track. This proposal will allow the students in the BSGE and BSEV majors to have the same access to an accelerated Masters of Science with Major in Civil Engineering degree program as BSCV students. All graduate prerequisites are honored because these students come from an engineering degree program. This program meets all criteria for combined degree programs set forth by the College of Engineering and Computer Science.

Table of undergraduate course replacements

Program	Undergraduate Courses	Graduate Courses
BSGE	SUR4150C-Intro to Terrestrial Laser Scanning Geomatics Engineering Technical Elective 1 Geomatics Engineering Technical Elective 2	CEG5304C-Terrestrial Laser Scanning CCE5036-Civil Eng Project Management TTE5501-Trans Sys Analysis or SUR5935-Special Topics in Geomatics Engineering
BSEV	ENV4514-Water and Wastewater Treatment Systems Environmental Engineering Technical Elective 1 Environmental Engineering Technical Elective 2	ENV5510-Water and Wastewater Treatment CCE5036-Civil Eng Project Management CWR5308-Stormwater Modeling and Management or ENV5565C-Hydraulic Systems Engineering or ENV5935-Special Topics in Environmental Engineering

Catalog language is attached.

Catalog Language: BSGE/MS with Major in Civil Engineering

Combined Degree Program

Bachelors of Science in Geomatics Engineering (BSGE) / Masters of Science (MS) with Major in Civil Engineering

This program allows FAU Bachelor of Science in Geomatics Engineering (BSGE) students the opportunity to complete the Masters of Science (MS) with Major in Civil Engineering in less time than the traditional Masters of Science program. This combined degree program is intended for academically talented students and high achievers. After application and admittance to the MS graduate program at the beginning of the senior year, up to nine credits of approved graduate-level courses may be taken and counted toward both the BSGE and MS with Major in Civil Engineering degrees as long as the following criteria are met:

- 1) The student has met the minimum 120 credits for BSGE degree, and
- 2) The student has taken a minimum of 30 credits (5000 level or higher) for the MS with Major in Civil Engineering, and

The combined degree program is 150-153 credits, 120 for the undergraduate degree and 30-33 for the master's degree. The MS thesis option is 30 credits, and the MS project option is 33 credits. Students complete the undergraduate degree first, taking no more than 9 credits of graduate coursework in their senior year, which will then be used to satisfy both degrees.

To be eligible for the combined BSGE/MS with Major in Civil Engineering program, students must:

- 1) Meet all of the eligibility criteria for combined programs in the College of Engineering and Computer Science
- 2) Have a cumulative GPA of 3.25 or higher (FAU and transfer courses);
- 3) Have a total institution GPA of 3.25 or higher (FAU courses); and
- 4) Formally apply to the combined program, completing the admissions process at least one semester prior to beginning the M.S. portion of the program.

Catalog Language: BSEV/MS with Major in Civil Engineering

Combined Degree Program

Bachelors of Science in Environmental Engineering (BSEV) / Masters of Science (MS) with Major in Civil Engineering

This program allows FAU Bachelor of Science in Environmental Engineering (BSEV) students the opportunity to complete the Masters of Science (MS) with Major in Civil Engineering in less time than the traditional Masters of Science program. This combined degree program is intended for academically talented students and high achievers. After application and admittance to the MS graduate program at the beginning of the senior year, up to nine credits of approved graduate-level courses may be taken and counted toward both the BSEV and MS with Major in Civil Engineering degrees as long as the following criteria are met:

- 1) The student has met the minimum 120 credits for BSGE degree, and
- 2) The student has taken a minimum of 30 credits (5000 level or higher) for the MS with Major in Civil Engineering, and

The combined degree program is 150-153 credits, 120 for the undergraduate degree and 30-33 for the master's degree. The MS thesis option is 30 credits, and the MS project option is 33 credits. Students complete the undergraduate degree first, taking no more than 9 credits of graduate coursework in their senior year, which will then be used to satisfy both degrees.

To be eligible for the combined BSEV/MS with Major in Civil Engineering program, students must:

- 1) Meet all of the eligibility criteria for combined programs in the College of Engineering and Computer Science
- 2) Have a cumulative GPA of 3.25 or higher (FAU and transfer courses);
- 3) Have a total institution GPA of 3.25 or higher (FAU courses); and
- 4) Formally apply to the combined program, completing the admissions process at least one semester prior to beginning the M.S. portion of the program.