

# Cover Sheet: Request 11014

## Engineering Leadership

### Info

Process	Certificate New Ugrad/Pro
Status	Pending
Submitter	Mcelroy,William J mcelrowj@eng.ufl.edu
Created	6/3/2016 1:52:50 PM
Updated	1/9/2017 4:12:12 PM
Description of request	Engineering undergraduate students completing the Certificate will reflect a comprehensive set of industry-preferred competencies that prepares them for leadership roles in their engineering careers. The Certificate's core studies include engineering leadership, advanced engineering leadership development, and one of the courses engineering project management, engineering entrepreneurship, or engineering innovation.

### Actions

Step	Status	Group	User	Comment	Updated
Department	Approved	ENG - Engineering - General 011940001	Caple, Elizabeth		6/10/2016
No document changes					
College	Recycled	ENG - College of Engineering	Caple, Elizabeth		6/10/2016
No document changes					
Department	Approved	ENG - Engineering - General 011940001	van Oostrom, Hans		8/22/2016
No document changes					
College	Approved	ENG - College of Engineering	Caple, Elizabeth		10/17/2016
No document changes					
Office of Institutional Planning and Research	Recycled	PV - Office of Institutional Planning and Research	Zeglen, Marie	CIP code 14.0101 cannot be approved for this program. UF has no BOG authority for programs in this CIP. 30.9999 can be chosen if desired or the program can be assigned to any approved CIP in Engineering. Consult with COE Dean's Office.	12/5/2016
No document changes					
College	Approved	ENG - College of Engineering	van Oostrom, Hans	Updated CIP code	12/5/2016
No document changes					
Office of Institutional Planning and Research	Approved	PV - Office of Institutional Planning and Research	Zeglen, Marie	CIP code 14.2701 is approved for this undergraduate certificate	12/5/2016
No document changes					

Step	Status	Group	User	Comment	Updated
University Curriculum Committee	Comment	PV - University Curriculum Committee (UCC)	Case, Brandon	Added to the January agenda.	12/16/2016
No document changes					
University Curriculum Committee	Pending	PV - University Curriculum Committee (UCC)			12/16/2016
No document changes					
Office of the Registrar					
No document changes					
OIPR Notified					
No document changes					
Student Academic Support System					
No document changes					
Catalog					
No document changes					
Academic Assessment Committee Notified					
No document changes					
College Notified					
No document changes					

# Certificate | New for request 11014

## Info

**Request:** Engineering Leadership

**Description of request:** Engineering undergraduate students completing the Certificate will reflect a comprehensive set of industry-preferred competencies that prepares them for leadership roles in their engineering careers. The Certificate's core studies include engineering leadership, advanced engineering leadership development, and one of the courses engineering project management, engineering entrepreneurship, or engineering innovation.

**Submitter:** van Oostrom, Hans oostrom@ufl.edu

**Created:** 12/5/2016 1:49:30 PM

**Form version:** 3

## Responses

**Certificate Name** Engineering Leadership

**Transcript Title** Engineering Leadership

**Credits** 9

**Level** Baccalaureate

**CIP Code** 14.2701

**Degree Name** Engineering - General

**Effective Term** Earliest Available

**Effective Year** Earliest Available

**Certificate Description** Engineering undergraduate students completing the Certificate will reflect a comprehensive set of industry-preferred competencies that prepares them for leadership roles in their engineering careers. The Certificate's core studies include engineering leadership, advanced engineering leadership development, and one of the courses engineering project management, engineering entrepreneurship, or engineering innovation.

**Requirements for Admission** undergraduate student in any engineering discipline

**Requirements for Completion** To receive the Engineering Leadership Certificate, undergraduate students must pass the following three courses with a grade of B or better in each course:

1) EGS 4038 - Engineering Leadership, 3 credits, letter graded; plus  
2) EIN 4905\* - Advanced Engineering Leadership Development, 3 credits, letter graded;  
and one of the following:

- EIN 4905\* - Fundamentals of Engineering Project Management, 3 credits, letter graded; or

- EGN 4641 - Engineering Entrepreneurship, 3 credits, letter graded; or

- EGN 4643 - Engineering Innovation, 3 credits, letter graded

\* Note: The requests for permanent course prefixes and numbers have been submitted.

**Rationale and Place in Curriculum** The next generation of engineering leaders will require a firm engineering foundation combined with leadership, innovation, and entrepreneurial competencies. These include strong analytical skills; organizational and strategic leadership; program and project management; practical ingenuity, creativity, dynamism, agility, and flexibility; entrepreneurial thinking; excellent communication skills; an understanding of business and management concepts; high ethical standards, and professionalism; and a background in conflict resolution and crisis decision-making. To meet these training needs, the Herbert Wertheim College of Engineering is expanding its curricular offerings to undergraduate students through a 9 SCH certificate series. The Engineering Leadership Certificate is awarded following successful completion of the courses: Engineering Leadership, Advanced Engineering Leadership Development, and one of the following: Fundamentals or Engineering Project Management, Engineering Entrepreneurship, or Engineering Innovation.

**Student Learning Outcomes** Help students describe and apply the foundations of modern-day leadership and critical success factors for effective leadership in their engineering careers through exploration of linkages to vision, high ethical standards and professionalism, effective communications, team building and collaborative team dynamics, driving change, managing conflicts and crises, entrepreneurship and innovation, and delivery excellence.

Help students interpret, evaluate and apply strategic leadership knowledge and practices that are critical to the success of engineering-based businesses that now mostly operate in a highly-uncertain and competitive, complex and rapidly-changing business environment.

Feedback to students in the courses required for the Certificate is provided through letter grades via instructor assessment and evaluation of the various deliverables, assignments and group exercises associated with the courses.

External Consultation Results (departments with potential overlap or interest in proposed course, if any)

Department Management	Name and Title Robert Thomas - Department Chair
Phone Number 20163	E-mail robert.thomas@warrington.ufl.edu
<p>Comments</p> <p>The Management Department in the Warrington College has no objections to offering the Engineering Leadership courses (EGS4038, and EGS6039) in the College of Engineering.</p>	

Department	Name and Title
Phone Number	E-mail
<p>Comments</p>	

Department	Name and Title
Phone Number	E-mail
<p>Comments</p>	

External Consultation Results (departments with potential overlap or interest in proposed course, if any)

Department Management	Name and Title Robert Thomas - Department Chair
Phone Number 20163	E-mail robert.thomas@warrington.ufl.edu
Comments The Management Department in the Warrington College has no objections to offering the Advanced Engineering Leadership courses (EIN4905, and ESI6900) in the College of Engineering.	

Department	Name and Title
Phone Number	E-mail
Comments	

Department	Name and Title
Phone Number	E-mail
Comments	

External Consultation Results (departments with potential overlap or interest in proposed course, if any)

<b>Department</b> UF Entrepreneurship and Innovation Center	<b>Name and Title</b> Jamie Kraft/ Director
<b>Phone Number</b> 352-273-0330	<b>E-mail</b> jamie.kraft@warrington.ufl.edu
<b>Comments</b> I approve of these courses. EGN 4641 & EGN 6640 EGN 4643 & EGN 6642	

<b>Department</b> _____	<b>Name and Title</b> _____
<b>Phone Number</b> _____	<b>E-mail</b> _____
<b>Comments</b>  	

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<b>Phone Number</b> _____	<b>E-mail</b> _____
<b>Comments</b>  	

External Consultation Results (departments with potential overlap or interest in proposed course, if any)

Department	Name and Title
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Comments	

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