



**Engineering Leadership  
& Innovation Institute at UCF**

Minor & Certificate FAQs

Summer 2016

## What is the Engineering Leadership Minor/Certificate?

The minor and certificate provide a launching pad for a student's multiple career paths. The minor and certificate is a tangible way to demonstrate your commitment to excellence. When you complete the minor or certificate this will be on your official UCF transcript. Potential employers will see you have invested in yourself to be the best you can be.

## Why does CECS have the Engineering Leadership Minor/Certificate?

CECS has the Engineering Leadership Minor/Certificate because CECS's largest employers asked for

- Increased leadership and professional skills in our graduates
- An ability to determine who has these skills
  - Upon successful completion of the minor or certificate, this accomplishment will be added to the student's official transcript.

## How will the Engineering Leadership Minor/Certificate enhance my skills?

The Engineering Leadership Minor/Certificate will enhance your skills by giving you further knowledge and confidence to be

- Technically Sound: to create technical solutions to challenges
- Creative: to generate creative ideas and new concepts
- Innovative: to bring the creative ideas to life, to convert the idea/concept to a working product or system that is used
- Collaborative: to work professionally with others
- Accountable: to meet commitments in a project-based environment.

## How will the Engineering Leadership Minor/Certificate prepare me for multiple career paths?

With these additional skills, you will increase your career options. Given below are examples of the multiple careers you can pursue.

Define	Design	Build	Deliver
<ul style="list-style-type: none"><li>• Technical Sales Engineers</li><li>• Applications Engineers</li><li>• Systems Engineers</li></ul>	<ul style="list-style-type: none"><li>• Design Engineers</li><li>• Software Engineers</li><li>• System Engineers</li></ul>	<ul style="list-style-type: none"><li>• Manufacturing Engineers</li><li>• Product Engineers</li><li>• Quality Engineers</li></ul>	<ul style="list-style-type: none"><li>• Applications Engineers</li><li>• Quality Engineers</li><li>• Product Engineers</li><li>• Technical Sales Engineers</li><li>• Finance &amp; Operations</li></ul>

(See <http://careers.ti.com/content/new-college-graduate> for more information and example of what these mean.)

## How does the Engineering Leadership Minor/Certificate fit within my academic career?

To fit with your academic career we have offered two options:

- The Engineering Leadership Minor
- The Engineering Leadership Certificate.

## What are the Minor courses?

The minor course are given below.

Focus Area	Courses	Hours
<b>Engineering Design</b>	<ul style="list-style-type: none"> <li>• Discipline specific design course or discipline specific senior design course:               <ul style="list-style-type: none"> <li>• EAS 4700C/4710C-Aerospace</li> <li>• CGN 4808C-Civil,Construction,Environmental</li> <li>• COB 4934/4935-CompSc</li> <li>• EEL 4914C/4915L-Electrical and Computer</li> <li>• EIN 4891-Industrial</li> <li>• EML 4501C/4502C-Mechanical</li> </ul> </li> </ul>	3
<b>Engineering Leadership and Innovation</b>	<ul style="list-style-type: none"> <li>• LDR 2001 Foundations of Leadership (2 hrs)</li> <li>• LDR 2002 Intermediate Foundations of Leadership (2 hrs)</li> <li>• Pick one of the following               <ul style="list-style-type: none"> <li>• MAR 3391-Professional Selling course (3 hrs)</li> <li>• GEB 4152 Technological Entrepreneurship or EGN 4616C Engineering Entrepreneurship (3hrs)</li> </ul> </li> <li>• MAN 3025 Management of Organizations (3hrs)</li> <li>• PHI 3638 Ethical Issues in the 21Century (3hrs)</li> </ul>	13
<b>Engineering Leadership Seminar</b>	<ul style="list-style-type: none"> <li>• EGS 3030 Leadership in Engineering I (0 credit hours)</li> <li>• EGS 3031 Leadership in Engineering II (0 credit hours)</li> </ul>	0
<b>Engineering Leadership Capstone</b>	<ul style="list-style-type: none"> <li>• EGS 4950 Engineering Leadership Capstone (3 hrs)</li> </ul>	3

## What are the Certificate courses?

The Certificate course are given below.

Focus Area	Courses	Hours
<b>Engineering Design</b>	<ul style="list-style-type: none"> <li>• Discipline specific design course or discipline specific senior design course                             <ul style="list-style-type: none"> <li>• EAS 4700C/4710C-Aerospace</li> <li>• CGN 4808C-Civil,Construction,Environmental</li> <li>• COB 4934/4935-CompSc</li> <li>• EEL 4914C/4915L-Electrical and Computer</li> <li>• EIN 4891-Industrial</li> <li>• EML 4501C/4502C-Mechanical</li> </ul> </li> </ul>	3
<b>Engineering Leadership and Innovation</b>	<ul style="list-style-type: none"> <li>• Pick of 2 of the following courses:                             <ul style="list-style-type: none"> <li>• EGS 4624 Engineering Innovation and Leadership in the Engineering Environment (3 hrs)</li> <li>• GEB 4152 Technological Entrepreneurship or EGN 4616C Engineering Entrepreneurship (3hrs)</li> <li>• MAR 3391 Professional Selling course (3 hrs)</li> </ul> </li> </ul>	6
<b>Engineering Leadership Seminar</b>	<ul style="list-style-type: none"> <li>• EGS 3030 Leadership in Engineering I (0 credit hours)</li> <li>• EGS 3031 Leadership in Engineering II (0 credit hours)</li> </ul>	0
<b>Engineering Leadership Capstone</b>	<ul style="list-style-type: none"> <li>• EGS 4950 Engineering Leadership Capstone (3 hrs)</li> </ul>	3

## How do I sign up for the Engineering Leadership Minor/Certificate?

To sign up for the Engineering Leadership Minor/Certificate you can take the following steps:

- 1) Double check the catalog year
  - Students will need to work from the 2014-2015 catalogue or newer
  - If you are operating under a catalogue before 2014-2015 you'll need to double check with your undergraduate advisor for potential changes to your program of study by joining the minor or certificate
- 2) Double check you are officially declared as an engineering or computer science student
  - You must be declared engineering or computer science student (successful completion of Calc I & II, Physics I and an acceptable Chemistry)
- 3) Sign up online
  - My.ucf.edu
  - Change Major: request
  - Add minor/certificate

## How can I complete the program in a timely manner?

You can complete each program in a timely manner. An example of how to complete the courses in a timely manner is given below.

	Sophomore	Junior	Senior
<b>Engineering Leadership Minor</b>	<ul style="list-style-type: none"> <li>LDR 2001 Foundations of Leadership</li> <li>LDR 2002 Intermediate Foundations of Leadership</li> <li>MAN 3025 Management of Organizations (3hrs)</li> <li>PHI 3638 Ethical Issues in the 21Century (3hrs)</li> </ul>	<ul style="list-style-type: none"> <li>EGS 3030 Leadership in Engineering I</li> <li>EGS 3031 Leadership in Engineering II</li> <li>MAR 3391-Professional Selling course or GEB 4152 Technological Entrepreneurship or EGN 4616C Engineering Entrepreneurship</li> </ul>	<ul style="list-style-type: none"> <li>Discipline specific design course or discipline specific senior design course</li> <li>EGS 4950 Engineering Leadership Capstone</li> </ul>
<b>Engineering Leadership Certificate</b>	<ul style="list-style-type: none"> <li></li> </ul>	<ul style="list-style-type: none"> <li>EGS 3030 Leadership in Engineering I</li> <li>EGS 3031 Leadership in Engineering II</li> <li>EGS 4624 Engineering Administration and Leadership</li> <li>GEB 4152 Technological Entrepreneurship or EGN 4616C Engineering Entrepreneurship</li> </ul>	<ul style="list-style-type: none"> <li>Discipline specific design course or discipline specific senior design course</li> <li>EGS 4950 Engineering Leadership Capstone</li> </ul>

## What courses can I use as technical electives?

Some of the disciplines support the use of the minor or certificate courses as technical electives. The current use of technical electives is given below. Note the use of courses as technical electives may change. Please verify with your undergraduate coordinator in your home department

Dept	Program	Courses Eligible as a Technical Elective
<b>CECE</b>	Civil	<ul style="list-style-type: none"> <li>None</li> </ul>
	Environmental	<ul style="list-style-type: none"> <li>EGS 4624 Engineering Innovation and Leadership in the Engineering Environment</li> <li>EGS 4950 Engineering Leadership Capstone</li> </ul>
	Construction	<ul style="list-style-type: none"> <li>EGS 4624 Engineering Innovation and Leadership in the Engineering Environment</li> <li>EGS 4950 Engineering Leadership Capstone</li> </ul>
<b>EE</b>	EE	<ul style="list-style-type: none"> <li>None</li> </ul>
	CpE	<ul style="list-style-type: none"> <li>None</li> </ul>
	Photonics	<ul style="list-style-type: none"> <li>None</li> </ul>
<b>CS</b>	Computer Science	<ul style="list-style-type: none"> <li>None</li> </ul>
	Information Technology	<ul style="list-style-type: none"> <li>None</li> </ul>
<b>IEMS</b>	IE	<ul style="list-style-type: none"> <li>MAR 3391-Professional Selling</li> <li>GEB 4152 Technological Entrepreneurship or EGN 4641C Engineering Entrepreneurship</li> <li>EGS 4624 Engineering Innovation and Leadership in the Engineering Environment (Required as part of the UG IE major)</li> </ul>
<b>MAE</b>	ME	<ul style="list-style-type: none"> <li>EGS 4624 Engineering Innovation and Leadership in the Engineering Environment</li> </ul>
	Aero	<ul style="list-style-type: none"> <li>EGS 4624 Engineering Innovation and Leadership in the Engineering Environment</li> </ul>