



KERN ENTREPRENEURIAL
ENGINEERING NETWORK

INTEGRATED eLEARNING MODULES REQUEST FOR PROPOSALS

OVERVIEW

The Kern Entrepreneurial Engineering Network (KEEN) fosters an entrepreneurial mindset in engineering students. An entrepreneurial mindset applies to all aspects of life, beginning with curiosity about our changing world, integrating information from various resources to gain insight, and identifying unexpected opportunities to create value. An engineer equipped with an entrepreneurial mindset is able to create extraordinary value within any type of organization. KEEN schools identify, nurture, and develop entrepreneurially minded engineers who will contribute to our national economic prosperity and secure individual fulfillment through a lifetime of meaningful work. To learn more about KEEN, visit engineeringunleashed.com.

Development of online modules supporting entrepreneurially minded learning is part of this effort. The University of New Haven (UNH), a KEEN partner institution, aims to instill an entrepreneurial mindset in its engineering students by integrating online modules into existing engineering and computer science courses. These modules will be shared educational resources, available to KEEN and others.

REQUEST FOR PROPOSALS

UNH in partnership with KEEN will be accepting proposals for the development of online modules that will be utilized to promote entrepreneurial thinking in engineering students. The list of these modules, the subset of eighteen-module program, is given in Table 1. **The length of each module is expected to be equivalent to three to nine hours of online student work.**

Proposals must be submitted by March 10, 2017.

Table 1 Topics for online modules

TOPIC	TARGET AUDIENCE
Generating new ideas based on societal needs and business opportunities	Freshman
Developing customer awareness and quickly testing concepts through customer engagement	
Determining market risks	Junior
Financing a business	
Resolving difficult ethical issues	
Recruiting and servicing clients	Senior
Defining and protecting intellectual property	

MODULES

Integrated eLearning modules, specified in Table 1, will be developed, and used to enable engineering students to develop an entrepreneurial mindset. These online modules should be interactive, structured in a way that will allow integration into regular courses or utilization as supplementary resources, and must be accompanied with a teaching guide. The desired content for each module is likely to evolve through the development period based on feedback from reviewers. To learn more about the online modules, please visit www.newhaven.edu/keen.



WHO SHOULD SUBMIT A PROPOSAL?

- ▶ University and college faculty interested in taking students beyond problem-solving to create value through student-centered and collaborative learning
- ▶ Industry experts, practitioners, and those interested in fostering an entrepreneurial mindset in engineering students

IMPORTANT NOTES

- ▶ All developers must participate in an online training program on how to design and construct online learning modules that are interactive and of high quality. The Office eLearning at UNH will provide the necessary online training.
- ▶ This training program is an investment in your professional development. You will find a sample course content on writing learning outcomes and a short interactive exercise at www.newhaven.edu/KEEN.
- ▶ This self-paced training itself will be online from 24 March to 6 April 2017. Developers must complete the self-paced online training, EXPECTED TO TAKE ABOUT 9 HOURS, during March 24-April 6, 2017.
- ▶ In addition to this training, developers must participate in a one-hour webinar featuring the philosophy, goals, and activities of KEEN in late March to complete their online training.
- ▶ Each developer will work with a course designer and a review team while developing the module.
- ▶ Integrated e-Learning Modules, once submitted, will be owned by KEEN and become part of its repository.

KEY DATES AND DEADLINES

Application Submission and Training:

- Submission Deadline:** March 10, 2017
- Acceptance Notifications:** March 17, 2017
- Online Training Start Date:** March 24, 2017
- KEEN Webinar:** March 28, 2017

Module Submission Deadline:

- Preliminary module content:** May 5, 2017
- Near final module content:** June 16, 2017
- Final module content:** July 28, 2017

COMPENSATION

Developers will receive a total of \$3,000 for a completed module, with partial payments made as follows:

Amount	Paid Upon	Scheduled Date
\$500	Successful completion of online training and KEEN Webinar	March 30, 2017
\$1,000	Submission of a near final draft of the Integrated e-Learning Module	June 30, 2017
\$1,500	Submission of a ready-to-implement Integrated e-Learning Module that incorporates suggestion on the draft module	August 30, 2017

PROPOSAL SUBMISSION CHECKLIST

- Applicant information including:
 - Name
 - Affiliation and position
 - Contact information
 - Relevant background
 - Two-page CV
- Proposal including:
 - Integrated e-Learning Module description
 - Integrated e-Learning Module learning objectives
 - Integrated e-Learning Module assessment plan

SUBMISSION PROCEDURE

A completed proposal form must be submitted electronically to KEEN@newhaven.edu by March 10, 2017. A two-page CV must also be submitted as an attachment to the proposal form. Email questions or requests for additional information to: KEEN@newhaven.edu



INTEGRATED e-LEARNING MODULES PROPOSAL FORM

Applicant Information:

Name	
Title	
Organization	
Email	
Phone	
Address	

Are you a member of a KEEN partner institution? If so, please specify the name of the institution:

If you answered yes to the previous question, which KEEN related meetings and/or workshops have you attended before?

Have you participated in an online teaching/learning activity before? (Please note, online experience is not required to submit a proposal)

YES NO

If you answered yes to the previous question, please describe/summarize your online teaching and/or learning experience.



Choose a module from the following list:

- Generating new ideas based on societal needs and business opportunities
- Developing customer awareness and quickly testing concepts through customer engagement
- Determining market risks
- Financing a business
- Resolving difficult ethical issues
- Recruiting and servicing clients
- Defining and protecting intellectual property

What is the level of student population targeted by this module? (You may select more than one)

- Freshman
- Sophomore
- Junior
- Senior

What prerequisite knowledge does this module require?

Please provide a description of your module (250 words maximum)



Which learning outcomes are addressed in your module? (Check all that apply)

Entrepreneurial-Minded Learning (EML) Outcomes:

CURIOSITY

- Demonstrate constant curiosity about our changing world
- Explore a contrarian view of accepted solution
- Other:
- Other:

CONNECTIONS

- Integrate information from many sources to gain insight
- Assess and manage risk
- Other:
- Other:

CREATING VALUE

- Identify unexpected opportunities to create extraordinary value
- Persist through and learn from failure
- Other:
- Other:

Other Learning Outcomes:

What specifically in the module will address the EML outcomes you have identified?



Which Entrepreneurial-Minded Learning complementary skills (Opportunity and Impact) are emphasized in this Module? (Check all that apply)

COMPLEMENTARY SKILLS

OPPORTUNITY	DESIGN	IMPACT
<input type="checkbox"/> Identify an opportunity	Determine design requirements	<input type="checkbox"/> Communicate an engineering solution in economic terms
<input type="checkbox"/> Investigate the market	Perform technical design	<input type="checkbox"/> Communicate an engineering solution in terms of societal benefits
<input type="checkbox"/> Create a preliminary business model	Analyze solutions	<input type="checkbox"/> Validate market interest
<input type="checkbox"/> Evaluate technical feasibility customer value societal benefits economic viability	Develop new technologies (optional)	<input type="checkbox"/> Develop partnerships and build a team
<input type="checkbox"/> Test concepts quickly via customer engagement	Create a model of prototype	<input type="checkbox"/> Identify supply chains distribution methods
<input type="checkbox"/> Assess policy and regulatory issues	Validate functions	<input type="checkbox"/> Protect intellectual property

THESE SPECIFIC SKILLS REINFORCE THE DEVELOPMENT OF AN ENTREPRENEURIAL MINDSET.



How will you know that the students learned from your module?

Please describe/summarize what prior experiences make you well-suited to develop this module. (300 words maximum)

Email questions or requests for additional information to: KEEN@newhaven.edu