


**Curriculum and Course Change System - Print New Course Form**
**Course Abbreviation & Number:**

 X **New Undergraduate Course:** CU- 1400

 .. **New Honors Course:** --

 .. **New Graduate Course:** -

**Effective Term:** 01/2015

**Catalog Title:** The Entrepreneurial Mindset

**Transcript Title:** The Entrepreneurial Mindset

**Fixed Credit Course:** 2 (2,0)

**Variable Credit Course:** - (-), (-)

Method of Instruction	Course Modifier	General Education Designation
X A-Lecture Only	.. Pass/Fail Only	.. Creative Inquiry
.. B-Lab (w/fee)	X Graded	.. English Composition
.. D-Seminar	.. Variable Title	.. Oral Communication
.. E-Independent Study	.. Creative Inquiry	.. Mathematics
.. F-Tutorial (w/fee)	.. Repeatable	.. Natural Science No Lab
.. G-Studio	maximum credits:	.. Natural Science w/Lab
.. H-Field course		.. Math or Science
.. I-Study Abroad		.. A&H (Literature)
.. L-Lab (no/fee)		.. A&H (Non-Literature)
.. N/B-Lecture/Lab(w/fee)		.. Social Science
.. N/L-Lecture/Lab(no fee)		.. CCA
		.. STS

**Add cross-listing with the following child course(s):**

**Catalog Description:** This course is an introduction to the thought processes and entrepreneurial methods by which big problems in business, industry and society can be solved. It introduces skills in critical and integrative thinking and strategic problem solving. After introducing essential concepts and frameworks, the course will introduce problem-solving techniques. The latter part of the course provides occasion for the student to practice these skills through a small team project.

**Prerequisite(s):** None

**Projected Enrollment:**

Year 1 - 100 Year 2 - 200 Year 3 - 200 Year 4 - 200

**Required course for students in:** None. Offered as elective only.

**Statement of need and justification based on assessment results of student learning outcomes:** Big problems are those that, if solved even partly, will transform industries, change the way we live, and greatly better people's lives. Examples include viable alternate energy, affordable transportation not based on fossil fuel, addressing global warming and environmental damage, developing treatments for diseases neglected for economic reasons, alleviating food and water shortages, responding to disasters, bringing products and services to ignored markets, and many others. Solving these complex problems requires creativity and innovation, strategic and entrepreneurial thinking, and management and organizational practices. The aim of the course is to discover learn how big problems have been solved, learn basic techniques in problem identification and problem solving, and apply these principles to unmet needs.

**Textbook(s):** TBA

**Learning Objectives:** Anticipated Learning Outcomes:

Students will demonstrate the ability to critically analyze problems within the context of entrepreneurial opportunities.

Students will demonstrate effective oral and written communication skills through presentations and final reports.

Students will demonstrate an understanding of issues created by the complex interactions among science, technology, and society through identification, discussion and presentation of unsolved problems in engineering, science and society.

Students will demonstrate the ability to identify and design a novel solution to a problem.

Students will demonstrate the ability to work on interdisciplinary teams.

**Topical Outline:** Week 1: Introduction to Creativity and Innovation (2 lectures\*)

Week 2: Innovation Begins with an Eye (2 lectures)

Week 3: The Perfect Brainstorm (2 lectures)

Week 4: Prototyping is the Shorthand of Innovation (2 lectures)

Week 5: Linking Creativity and Innovation to Your World (2 lectures)

Week 6: Alternative Energy (2 lectures)

Week 7: Affordable Transportation (2 lectures)

Week 8: Global Warming/Environmental Damage (2 lectures)

Week 9: Treatments for Diseases (2 lectures)

Week 10: Food and Water Shortages (2 lectures)

Week 11: Responding to Natural Disasters (2 lectures)

Week 12: Introduction to Clemson University Entrepreneurship (2 lectures)

Week 13: Special interest Topics (2 lectures)

Week 14: Bring Products and Services to Market (2 lectures)

Week 15: Shaping Opportunities, Building Teams, and Acquiring Resources (2 lectures)

\*Lecture is defined as a 50 minute class session\*

**Evaluation:** Entrepreneurship Problem Analysis (x2) 30%

Reflection papers (x2) 10%

Final Project 30%

Class Participation 30%




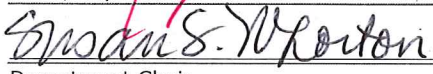
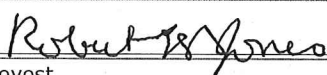
**Duplication (if applicable):** CU1400 is an underclassmen elective course offered as part of a 4 course series designed to engage students in entrepreneurship at Clemson. There are currently no courses offered to freshman and sophomores that teach and apply the principles of entrepreneurship at a university level in a multi-disciplinary setting. This course compliments discipline specific courses in design (senior and capstone design courses) that are offered to specific majors at the upperclassmen levels.

**Form Originator:** LPARR, Parr, Linda J **Date Form Created:** 9/30/2014

**Form Last Updated by:** LPARR, Parr, Linda J **Date Form Last Updated:** 10/19/2014

**Form Number:** 7650

**Approval**

			11-7-2014
Chair, Department Curriculum Committee	Date	Chair, Undergraduate Curriculum Committee	Date
	10/27/14		
Department Chair	Date	Chair, Graduate Curriculum Committee	Date
			1/7/2015
Chair, College Curriculum Committee	Date	Provost	Date
College Dean	Date	President	Date
Director, Calhoun Honors College	Date		

**New Undergraduate Course: CU 1400**  
**Effective Term: 08/2015**  
**Catalog Title: - The Entrepreneurial Mindset**  
**Fixed Credit Course: (2, 2, 0)**  
**Method of Instruction: A (Lecture Only)**

**Catalogue Description:**

This course is an introduction to the thought processes and entrepreneurial methods by which big problems in business, industry and society can be solved. It introduces skills in critical and integrative thinking and strategic problem solving. After introducing essential concepts and frameworks, the course will introduce problem-solving techniques. The latter part of the course provides occasion for the student to practice these skills through a small team project.

**Prerequisites:** None

**Projected Enrollment: Year 1 - 100, Year 2 - 200, Year 3 - 200 Year 4 - 200**

**Required course for students in:** None. Offered as an elective only.

**Statement of Need**

Big problems are those that, if solved even partly, will transform industries, change the way we live, and greatly better people's lives. Examples include viable alternate energy, affordable transportation not based on fossil fuel, addressing global warming and environmental damage, developing treatments for diseases neglected for economic reasons, alleviating food and water shortages, responding to disasters, bringing products and services to ignored markets, and many others. Solving these complex problems requires creativity and innovation, strategic and entrepreneurial thinking, and management and organizational practices. The aim of the course is to discover learn how big problems have been solved, learn basic techniques in problem identification and problem solving, and apply these principles to unmet needs.

**Textbooks:** TBA

**Topical Outline:**

Week 1: Introduction to Creativity and Innovation (2 lectures\*)  
Week 2: Innovation Begins with an Eye (2 lectures)  
Week 3: The Perfect Brainstorm (2 lectures)  
Week 4: Prototyping is the Shorthand of Innovation (2 lectures)  
Week 5: Linking Creativity and Innovation to Your World (2 lectures)  
Week 6: Alternative Energy (2 lectures)  
Week 7: Affordable Transportation (2 lectures)  
Week 8: Global Warming / Environmental Damage (2 lectures)  
Week 9: Treatments for Diseases (2 lectures)  
Week 10: Food and Water Shortages (2 lectures)  
Week 11: Responding to Natural Disasters (2 lectures)

Week 12: Introduction to Clemson University Entrepreneurship (2 lectures)  
Week 13: Special Interest Topics (2 lectures)  
Week 14: Bring Products and Services to Market (2 lectures)  
Week 15: Shaping Opportunities, Building Teams, and Acquiring Resources (2 lectures)

\*Lecture is defined as a 50 minute class session.

**Evaluation:**

<u>Entrepreneurship Problem Analysis (x2)</u>	<b>30%</b>
<u>Reflection Papers (x2)</u>	<b>10%</b>
<u>Final Project</u>	<b>30%</b>
<u>Class Participation</u>	<b>30%</b>

**Duplication:** CU 1400 is an underclassmen elective course offered as part of a 4 course series designed to engage students in entrepreneurship at Clemson. There are currently no courses offered to freshman and sophomores that teach and apply the principles of entrepreneurship at a university level in a multi-disciplinary setting. This course compliments discipline specific courses in design (senior and capstone design courses) that are offered to specific majors at the upper classmen levels.

**Anticipated Learning Outcomes**

- Students will demonstrate the ability to critically analyze problems within the context of entrepreneurial opportunities
- Students will demonstrate effective oral and written communication skills through presentations and final reports
- Students will demonstrate an understanding of issues created by the complex interactions among science, technology, and society through identification, discussion and presentation of unsolved problems in engineering, science and society
- Students will demonstrate the ability to identify and design a novel solution to a problem
- Students will demonstrate the ability to work on interdisciplinary teams

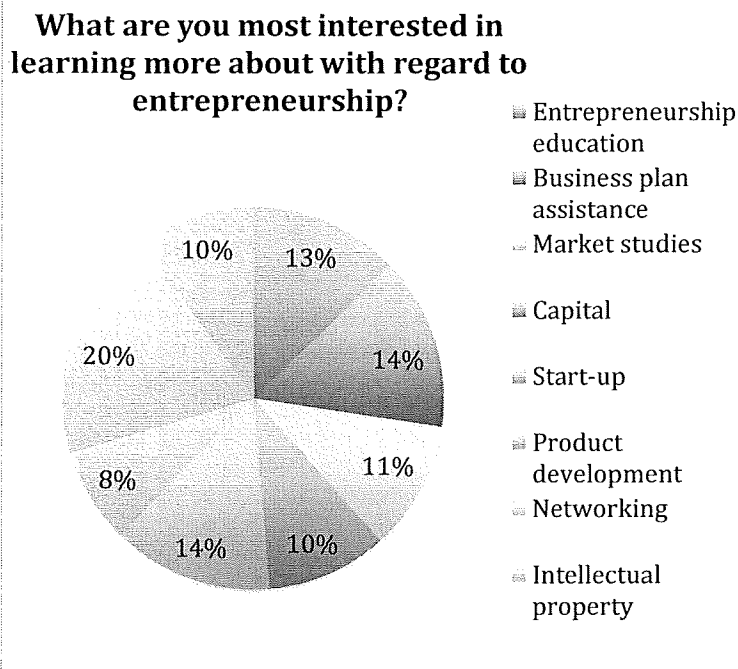
The Office of Economic Development conducted a survey to determine student interest and involvement in entrepreneurship and small business in October of 2014. Highlights of the survey are as follows:

(N=2180)

000093

### Learning Interests

- Three-quarters (76%) of student respondents would like to learn more about entrepreneurship\*
- 70% of student respondents would like to learn more about starting a new business\*

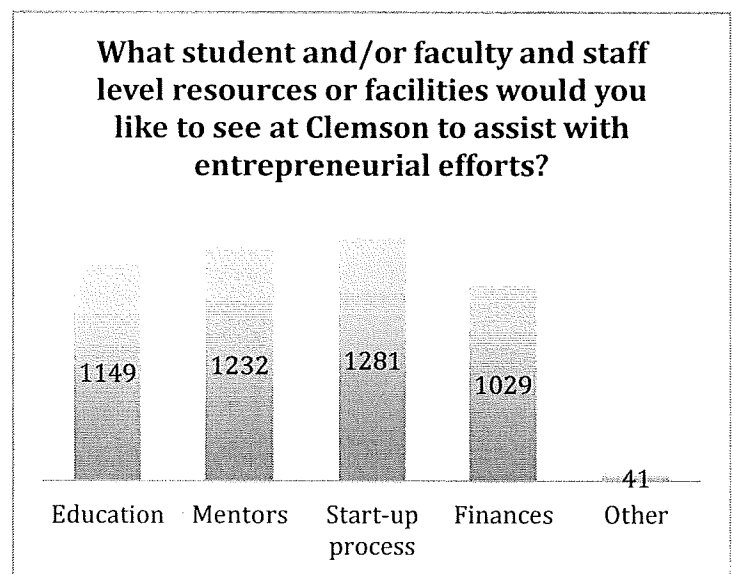


### Current Knowledge Regarding Clemson Entrepreneurship/Small Business Resources

- 3% of student respondents consider themselves “very knowledgeable”
  - 35% responded “none at all”

### Resources and Facilities Interests

- Student respondents are equally interested in obtaining resources for the *start-up process, mentors, and education*\*



### Business Interests (N=134)

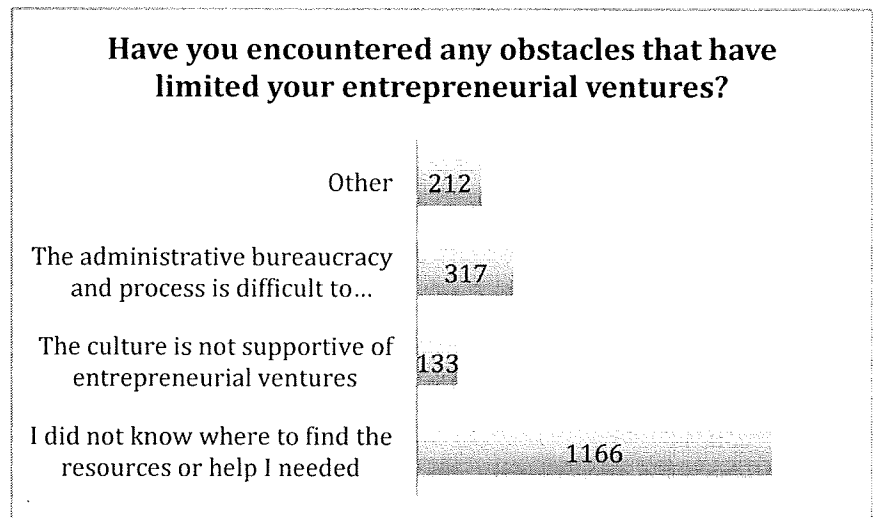
- 8% of student respondents have started a business\*
  - Of those, an overwhelming 82% do **not** involve employees or students at Clemson
- The majority (83%) of students responded that they would (45%) or probably would (38%) be interested in participating in the creative process of developing and generating ideas that can help form a new company

### Mentorship Interests

- 71% of student responses indicate *willingness to participate* in mentorship
  - 30% yes; 41% maybe

### Obstacles

- 76% of student respondents agree their major obstacle is that “[They] did not know where to find the resources or help [they] needed”\*



\*Indicates responses on option “check all that apply”

Summary compiled by Deanna Burns, Office of Assessment

The Office of Economic Development conducted a survey to determine faculty and staff interest and involvement in entrepreneurship and small business in October of 2014. Highlights of the survey are as follows:

(N=714)

000094

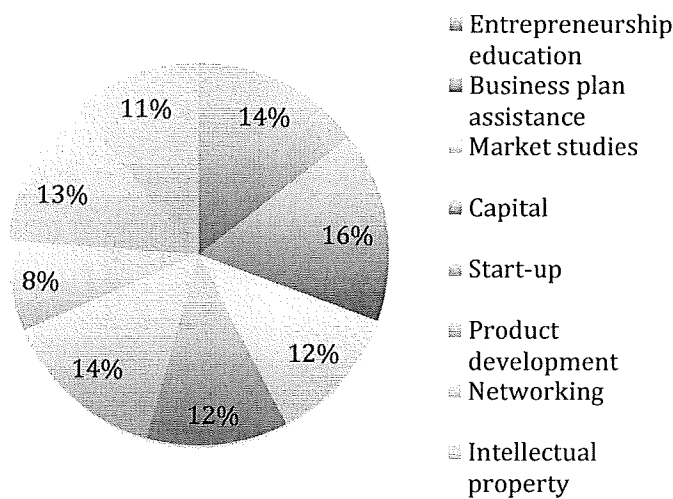
### Learning Interests

- More than half (59%) of respondents would like to learn more about entrepreneurship\*
- More than half (56%) of respondents would like to learn more about starting a small business\*

### Current Knowledge Regarding Clemson Entrepreneurship/Small Business Resources

- 3% of faculty/staff respondents consider themselves “very knowledgeable”
  - 42% responded “none at all”

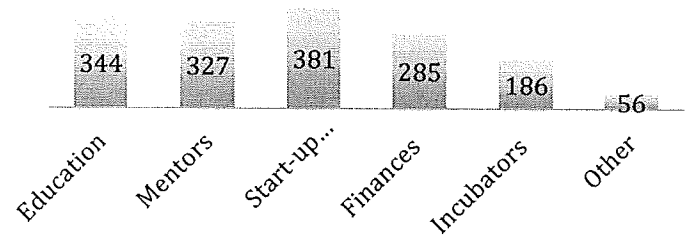
#### What are you most interested in learning more about with regard to entrepreneurship?



### Resources and Facilities Interests

- Respondents are most interested in obtaining resources in the *start-up process* (54%) however, resources for *education, mentors, and finances* are critical\*

#### What student and/or faculty and staff level resources or facilities would you like to see at Clemson to assist with entrepreneurial efforts?



### Business Interests (N=104)

- 21% of faculty/staff respondents have started a business\*
  - Of those, 75% do **not** involve other employees or students at Clemson
- The majority (70%) of faculty/staff responded that they would (32%) or probably would (38%) be interested in participating in the creative process of developing and generating ideas that can help form a new company

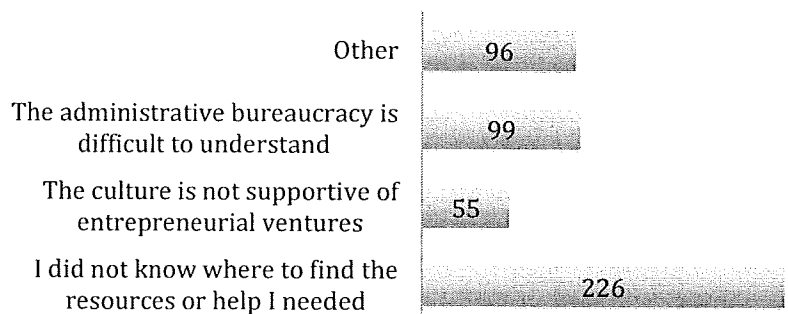
### Mentorship Interests

- 71% of responses indicate *willingness to participate* in mentorship
  - 31% yes; 40% maybe

### Obstacles

- 62% of faculty respondents agree their major obstacle is that “[They] did not know where to find the resources or help [they] needed”\*

#### Have you encountered any obstacles that have limited your entrepreneurial ventures?



\*Indicates responses on option “check all that apply”

Summary compiled by Deanna Burns, Office of Assessment



000095

## Curriculum and Course Change System - Print New Course Form

**Course Abbreviation & Number:**X **New Undergraduate Course:** CU- 1410.. **New Honors Course:** --.. **New Graduate Course:** -**Effective Term:** 01/2015**Catalog Title:** Creativity, Innovation, & Entrepreneurship**Transcript Title:** Creativity, Innovation, & Entr**Fixed Credit Course:** 3 (3,0)**Variable Credit Course:** - (-), (-)

Method of Instruction	Course Modifier	General Education Designation
X A-Lecture Only	.. Pass/Fail Only	.. Creative Inquiry
.. B-Lab (w/fee)	X Graded	.. English Composition
.. D-Seminar	.. Variable Title	.. Oral Communication
.. E-Independent Study	.. Creative Inquiry	.. Mathematics
.. F-Tutorial (w/fee)	.. Repeatable	.. Natural Science No Lab
.. G-Studio	maximum credits:	.. Natural Science w/Lab
.. H-Field course		.. Math or Science
.. I-Study Abroad		.. A&H (Literature)
.. L-Lab (no/fee)		.. A&H (Non-Literature)
.. N/B-Lecture/Lab(w/fee)		.. Social Science
.. N/L-Lecture/Lab(no fee)		.. CCA
		.. STS

**Add cross-listing with the following child course(s):**

**Catalog Description:** This course introduces creativity and innovation thinking skills and processes that are critical in the generation of entrepreneurial teams and opportunities. These include the concepts of observation, problem identification, lateral thinking, design thinking, brainstorming, interdisciplinary teams, problem solving and generation of a value proposition. Best practices of entrepreneurship are introduced and these skills are then applied towards the identification of an early stage entrepreneurial opportunity.

**Prerequisite(s):** CU 1400**Projected Enrollment:**

Year 1 - 100 Year 2 - 200 Year 3 - 200 Year 4 - 200

**Required course for students in:** None. Offered as elective only.

**Statement of need and justification based on assessment results of student learning outcomes:** Entrepreneurship is the application of identifiable design and business skills towards the structured translation of need to the marketplace. Entrepreneurs and innovators require many skills. First, great innovators and entrepreneurs need to be great design thinkers. Second, most entrepreneurial endeavors that solve big, challenging problems require interdisciplinary solutions. Third, high-potential entrepreneurs thrive on breakthrough design thinking and a bias for action. These essential concepts and frameworks are introduced, and the latter part of the course provides occasion for practicing these skills. These types of entrepreneurship skills are usually reserved for upperclassmen, preventing the effective application of these skills by students while they are on campus. This course will be offered at freshman/sophomore level, and is part of 4 courses series to educate and empower students to practice entrepreneurship on campus.

**Textbook(s):** TBA.

**Learning Objectives:** Creativity Module: The Creativity Module has two objectives. First, the student will be introduced to key concepts of creativity and creative thinking, which are then compared and contrasted to traditional analytical thinking. Second, the student is given an opportunity to explore the attitudes, idioms, and techniques associated with "lateral thinking" process - the kind of thinking that breed's creativity.

**Innovation Module:**

The Innovation Module has three objectives: First, the student will be introduced to key concepts of innovation. Second, the student will be given the opportunity to explore the attitudes and techniques associated with "design thinking" and with the early-stage innovation process. Finally, the student will apply the C-Module and I-Module's concepts towards the development of an "entrepreneurial idea".

**Entrepreneurship Module:**

The Entrepreneurship Module has three desired learning outcomes: First, the student will be introduced to the "entrepreneurial mindset." Second, the student will learn the characteristics of "habitual entrepreneurs." Thirdly, the student will initially explore the process of entrepreneurship within their project idea.

**Topical Outline:** Creativity Module:

Week 1: Generating Alternatives

Week 2: Challenging Assumptions

Week 3: Suspending Judgment and Personal Opinion

Week 4: Setting-Up Provocations

**Innovation Module:**

Week 5: Understand

Week 6: Develop Project (IDEO Phase 0a)

Week 7: Framework and Work Plan (IDEO Phase 0b)

Week 8: Observe and Use Environments (IDEO Phase 0b)

Week 9: Observe Usage System (IDEO Phase 0b)

Week 10: Generate Alternative Ideas (IDEO Phase 0c)

Week 11: Turn Ideas in to Nascent Concept (Prototype)



Entrepreneurship Module:  
 Week 12: Shaping Opportunities  
 Week 13: Building Teams  
 Week 14: Acquiring Resources  
 Week 15: Entrepreneurial Mindset Revisited

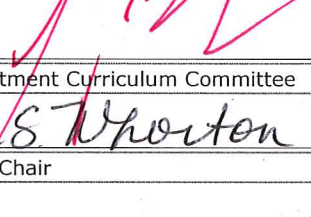


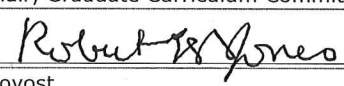
**Evaluation:** Attendance and Class Participation 10%  
 Weekly Assessment of Personal Reflection Journal 15%  
 Team Presentations (2) 30%  
 Entrepreneur/Innovator Interviews 15%  
 Final Term Paper 30%

**Duplication (if applicable):** CU 1410 is an underclassmen elective course offered as part of a 4 course series designed to engage students in entrepreneurship at Clemson. There are currently no courses offered to freshman and sophomores that teach and apply the principles of entrepreneurship at a university level. This course compliments discipline specific courses in design (senior and capstone design courses) that are offered to specific majors.

**Add course requirements for honors and/or 600-level courses (if applicable):** None.

**Form Originator:** LPARR,Parr,Linda J **Date Form Created:** 9/30/2014  
**Form Last Updated by:** LPARR, Parr,Linda J **Date Form Last Updated:** 10/22/2014  
**Form Number:** 7651

**Approval**

	9/24		11-7-2014
Chair, Department Curriculum Committee	Date	Chair, Undergraduate Curriculum Committee	Date
	10/27/14		
Department Chair	Date	Chair, Graduate Curriculum Committee	Date
			1/7/2015
Chair, College Curriculum Committee	Date	Provost	Date
College Dean	Date	President	Date
Director, Calhoun Honors College	Date		



**New Undergraduate Course: CU 1410**

**Effective Term: 08/2015**

**Catalog Title: - Creativity, Innovation, and Entrepreneurship**

**Fixed Credit Course: (3, 3, 0)**

**Method of Instruction: A (Lecture Only)**

**Catalogue Description:**

This course introduces creativity and innovation thinking skills and processes that are critical in the generation of entrepreneurial teams and opportunities. These include the concepts of observation, problem identification, lateral thinking, design thinking, brainstorming, interdisciplinary teams, problem solving and generation of a value proposition. Best practices of entrepreneurship are introduced and these skills are then applied towards the identification of an early stage entrepreneurial opportunity.

**Prerequisites: CU 1400**

**Projected Enrollment: Year 1 – 100, Year 2 – 200, Year 3 – 200 Year 4 - 200**

**Required course for students in:** None. Offered as an elective only.

**Statement of Need**

Entrepreneurship is the application of identifiable design and business skills towards the structured translation of need to the marketplace. Entrepreneurs and innovators require many skills. First, great innovators and entrepreneurs need to be great design thinkers. Second, most entrepreneurial endeavors that solve big, challenging problems require interdisciplinary solutions. Third, high-potential entrepreneurs thrive on breakthrough design thinking and a bias for action. These essential concepts and frameworks are introduced, and the latter part of the course provides occasion for practicing these skills. These types of entrepreneurship skills are usually reserved for upper-classmen, preventing the effective application of these skills by students while they are on campus. This course will be offered at freshman/sophomore level, and is part of 4 course series to educate and empower students to practice entrepreneurship on campus.

**Textbooks: TBA**

**Learning Objectives & Topical Outline**

Creativity Module

The Creativity Module has two objectives. First, the student will be introduced to key concepts of creativity and creative thinking, which are then and compared and contrasted to traditional analytical thinking. Second, the student is given an opportunity to explore the attitudes, idioms, and techniques associated with “lateral thinking” process – the kind of thinking that breed’s creativity.

Week 1: Generating Alternatives

Week 2: Challenging Assumptions  
 Week 3: Suspending Judgment and Personal Opinion  
 Week 4: Setting-Up Provocations

#### Innovation Module

The Innovation Module has three objectives: First, the student will be introduced to key concepts of innovation. Second, the student will be given the opportunity to explore the attitudes and techniques associated with “design thinking” and with the early-stage innovation process. Finally, the student will apply the C-Module and I-Module’s concepts towards the development of and “entrepreneurial idea.”

Week 5: Understand  
 Week 6: Develop Project [IDEO Phase 0a]  
 Week 7: Framework and Work Plan [IDEO Phase 0a]  
 Week 8: Observe and Use Environments [IDEO Phase 0b]  
 Week 9: Observe Usage System [IDEO Phase 0b]  
 Week 10: Generate Alternative Ideas [IDEO Phase 0c]  
 Week 11: Turn Ideas into Nascent Concept (Prototype)

#### Entrepreneurship Module

The Entrepreneurship Module has three desired learning outcomes: First, the student will be introduced to the “entrepreneurial mindset”. Second, the student will learn the characteristics of “habitual entrepreneurs.” Thirdly, the student will initially explore the process of entrepreneurship within their project idea.

Week 12: Shaping Opportunities  
 Week 13: Building Teams  
 Week 14: Acquiring Resources  
 Week 15: Entrepreneurial Mindset Revisited

#### **Evaluation:**

<u>Attendance and Class Participation</u>	10%
<u>Weekly Assessment of Personal Reflection Journal</u>	15%
<u>Team Presentations (2)</u>	30%
<u>Entrepreneur/Innovator Interviews</u>	15%
<u>Final Term Paper</u>	30%

**Duplication:** CU 1410 is an underclassmen elective course offered as part of a 4 course series designed to engage students in entrepreneurship at Clemson. There are currently no courses offered to freshman and sophomores that teach and apply the principles of entrepreneurship at a university level. This course compliments discipline specific courses in design (senior and capstone design courses) that are offered to specific majors.

**Anticipated Learning Outcomes**

Upon completion of this course, students will be able to:

- Know the context and language of entrepreneurship
- Identify and describe common characteristics and behaviors of ethical entrepreneurial leaders
- Review new business concepts that confront social, environmental and/or economic challenges at local, national and international levels
- Persuasively pitch new venture ideas via oral presentations
- Evaluate new venture pitches

The Office of Economic Development conducted a survey to determine student interest and involvement in entrepreneurship and small business in October of 2014. Highlights of the survey are as follows:

800100

(N=2180)

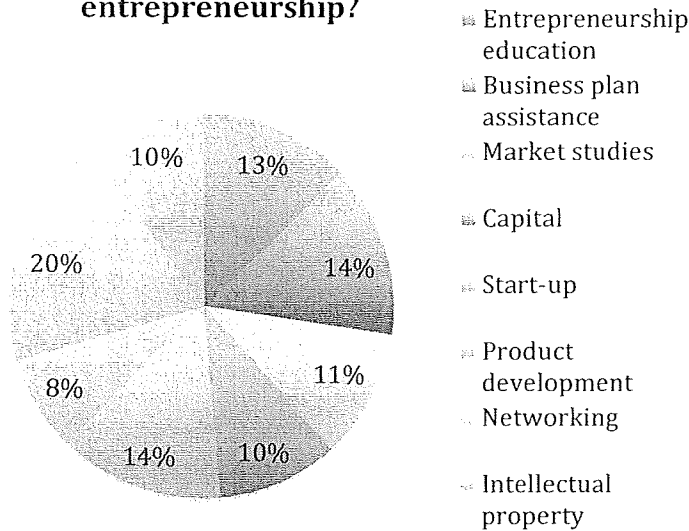
### Learning Interests

- Three-quarters (76%) of student respondents would like to learn more about entrepreneurship\*
- 70% of student respondents would like to learn more about starting a new business\*

### Current Knowledge Regarding Clemson Entrepreneurship/Small Business Resources

- 3% of student respondents consider themselves “very knowledgeable”
  - 35% responded “none at all”

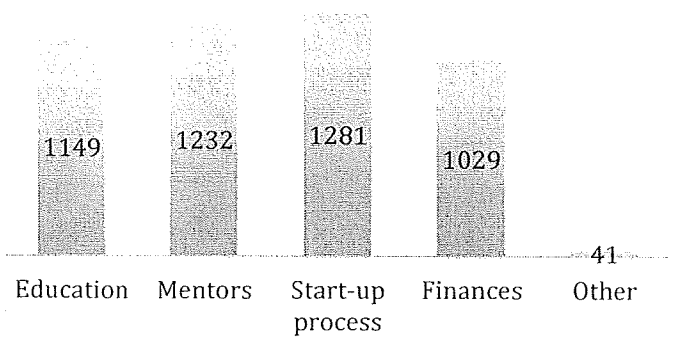
### What are you most interested in learning more about with regard to entrepreneurship?



### Resources and Facilities Interests

- Student respondents are equally interested in obtaining resources for the *start-up process, mentors, and education\**

### What student and/or faculty and staff level resources or facilities would you like to see at Clemson to assist with entrepreneurial efforts?



### Business Interests (N=134)

- 8% of student respondents have started a business\*
  - Of those, an overwhelming 82% do **not** involve employees or students at Clemson
- The majority (83%) of students responded that they would (45%) or probably would (38%) be interested in participating in the creative process of developing and generating ideas that can help form a new company

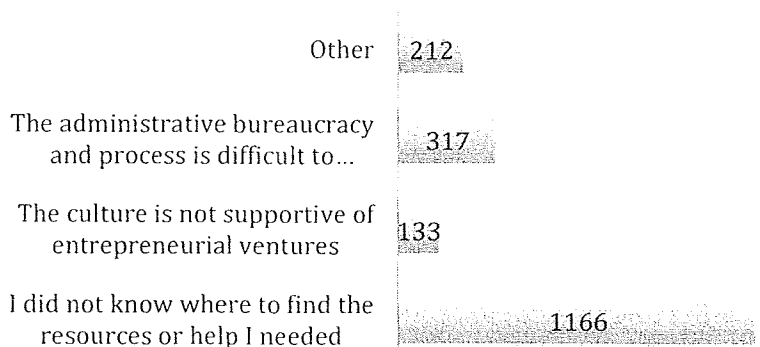
### Mentorship Interests

- 71% of student responses indicate *willingness to participate* in mentorship
  - 30% yes; 41% maybe

### Obstacles

- 76% of student respondents agree their major obstacle is that “[They] did not know where to find the resources or help [they] needed”\*

### Have you encountered any obstacles that have limited your entrepreneurial ventures?



\*Indicates responses on option “check all that apply”

The Office of Economic Development conducted a survey to determine faculty and staff interest and involvement in entrepreneurship and small business in October of 2014. Highlights of the survey are as follows:

(N=714)

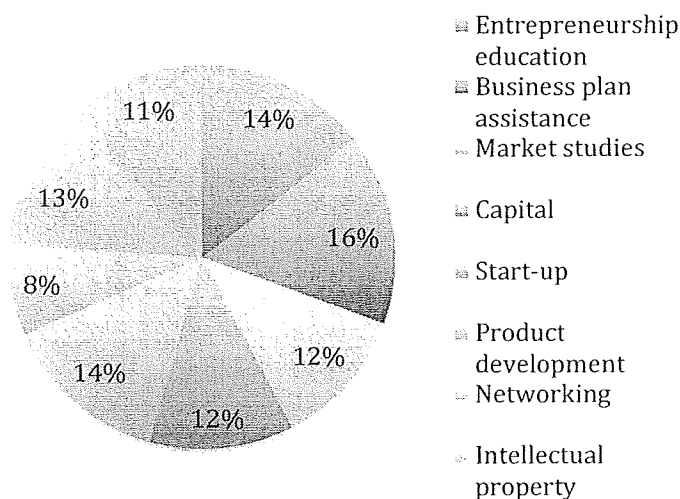
### Learning Interests

- More than half (59%) of respondents would like to learn more about entrepreneurship\*
- More than half (56%) of respondents would like to learn more about starting a small business\*

### Current Knowledge Regarding Clemson Entrepreneurship/Small Business Resources

- 3% of faculty/staff respondents consider themselves “very knowledgeable”
  - 42% responded “none at all”

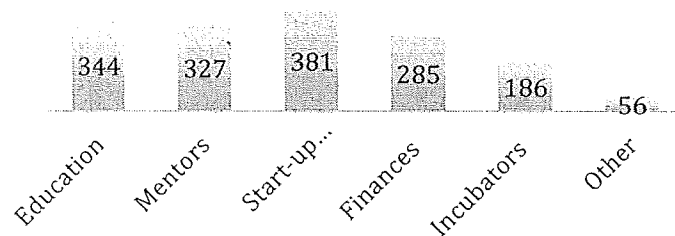
#### What are you most interested in learning more about with regard to entrepreneurship?



### Resources and Facilities Interests

- Respondents are most interested in obtaining resources in the *start-up process* (54%) however, resources for *education, mentors, and finances* are critical\*

#### What student and/or faculty and staff level resources or facilities would you like to see at Clemson to assist with entrepreneurial efforts?



### Business Interests (N=104)

- 21% of faculty/staff respondents have started a business\*
  - Of those, 75% do **not** involve other employees or students at Clemson
- The majority (70%) of faculty/staff responded that they would (32%) or probably would (38%) be interested in participating in the creative process of developing and generating ideas that can help form a new company

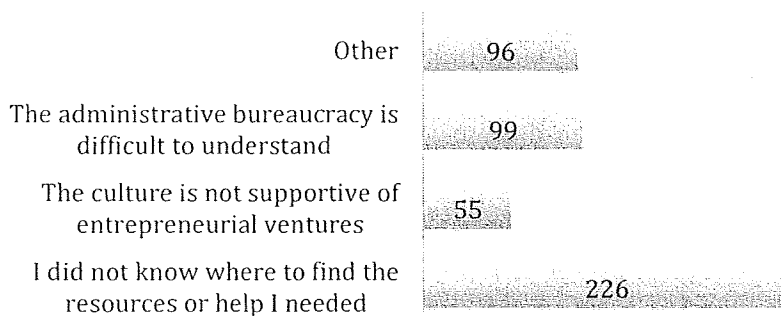
### Mentorship Interests

- 71% of responses indicate *willingness to participate* in mentorship
  - 31% yes; 40% maybe

### Obstacles

- 62% of faculty respondents agree their major obstacle is that “[They] did not know where to find the resources or help [they] needed”\*

#### Have you encountered any obstacles that have limited your entrepreneurial ventures?



\*Indicates responses on option “check all that apply”

Summary compiled by Deanna Burns, Office of Assessment