NatSci 489SH Integrative Team Science Seminar and Exposition

Nickname: iCons 4
Instructor: Prof. D. Venkataraman (“DV”)
Office: 171 Physical Sciences Building (“PSB”)
Email: dv@umass.edu

Class Meeting Times

Section 1: Every other Wednesday, 4:00-5:15 pm in Room N211 ILC
Section 2: Every other Tuesday, 6:00-7:15 pm, in Room N211 ILC

Suggested Reading

1. Designing Your Life: How to build a well-lived joyful life by Bill Burnett and Dave Evans
2. Design Thinking Websites:
   (1) https://www.ideo.com/pages/design-thinking
   (2) https://www.nngroup.com/articles/design-thinking/
3. Don't Be Such a Scientist: Talking Substance in an Age of Style, Author: Randy Olson

Course Description

The mission of iCons is to produce the next generation of leaders in science and technology with the attitudes, knowledge, and skills needed to solve the inherently multi-faceted problems facing our world. An important skill is to communicate to a broad, scientific audience. In this course, we will use the iCons scaffold (Inception → Engagement → Research → Create → Reflect) to design and develop communication products for a scientific audience. We will use concepts of design thinking to guide design and development. Each student in this course will (1) present the results of their research or independent study in the Massachusetts Undergraduate research conference, (2) present the results of their research or independent study in iCons 4 Senior Event and Exposition, and (3) write an integrative experience reflection document.

Course Goals

- Each student should be able to design and develop effective communication products using iCons/Design Thinking scaffold. Each student should conduct ‘market research’ (inception) to identify the audience and their needs, define a goal for the communication product, define the message that needs to be communicated, develop a prototype of the communication product, test the communication product on the intended audience and receive feedback, and develop a final product that can be distributed to the intended audience. At the
end of this class, students should be able to (1) deploy the tools of design thinking/iCons model to solve solving complex and multifaceted problems and (2) communicate to the relevant audience effectively.

Course Requirements
- Successful completion of iCons 1-3 and iCons 4-Natsci 489FH
- Enrolled in departmental 499Y research project, senior design project (iCons Advanced Study 1) or appropriate courses authorized by the iCons Director or Academic Affairs Director

Expectations for Students
- Students will actively participate in team-based discussions and provide constructive feed on team member’s progress
- Each student should present the results of their research or independent study in the Massachusetts Undergraduate research conference
- Each student should present present the results of their research or independent study in iCons 4 Senior Event and Exposition.
- Each student will write an integrative experience reflection document

Deadlines & Important Dates

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<thead>
<tr>
<th>Event/Activity</th>
<th>Deadline</th>
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<tr>
<td>Biweekly reflection statements</td>
<td>Biweekly</td>
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<tr>
<td>First Draft of QALMRI</td>
<td>Feb 01, 2020</td>
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<tr>
<td>Massachusetts Undergraduate Research Conference (MassURC) abstracts:</td>
<td>Feb 14, 2020</td>
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<tr>
<td>Draft of the posters for peer review</td>
<td>Mar 24-Mar 25, 2020 (Class time)</td>
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<td>Peer Review of the posters</td>
<td>April 03, 2020</td>
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<tr>
<td>Self-nomination for iCons Honorary Lecturers</td>
<td>April 03, 2020</td>
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<tr>
<td>First Draft of Integrative Experience Reflection Document</td>
<td>April 7-April 8, 2020</td>
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<td>Poster Printing for Mass URC and/or Senior Exposition:</td>
<td>Week of April 14, 2020</td>
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<td>Peer Review of the Integrative Experience Reflection Document:</td>
<td>April 15, 2020</td>
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<td>Mass URC at Campus Center:</td>
<td>April 24, 2020</td>
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<tr>
<td>iCons Senior Event and Exposition</td>
<td>April 30, 2020</td>
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Final Integrative Experience Reflection Document  May 04, 2020
University of Massachusetts Amherst Commencement  May 08, 2020

Evaluation

1. Attendance and Active participation in peer-support teams and class (50%) (total 100 points: each absence w/o cause will cost 25 points)
2. Meet deadlines for the prototype and final products. (50%) (total 100 points: each missed deadline will cost 20 points)

In-Class Meeting Schedule

Tuesday Section:
• Jan 21
• Feb 4
• Mar 3, 24
• April 7, 21, 28

Wednesday Section:
• Jan 22
• Feb 5, 19
• Mar 4, 25
• April 8, 22(?), Mon Schedule), 29

University Policy on Make-up Exams

The official make-up policy is:

“Students absent due to extenuating circumstances-including jury duty, military obligations, scheduled activities for other classes, the death of a family member, or verifiable health-related incapacity—remain responsible for meeting all class requirements and contacting the faculty member in a timely fashion about making up missed work. Faculty shall offer such students reasonable assistance in making up missed classes (i.e., making arrangements for attendance at labs or discussion sections which meet at other times; providing makeup exams or labs where feasible or offer mutually agreeable alternatives to make up work)”

The make-up policy is designed to increase the student’s success. Therefore, if you anticipate to unable to meet the deadlines due to certain extenuating circumstances please contact me via email well in advance (at least 2 weeks) so that we can discuss extending the deadline. If you are unable to meet the deadlines or fill the reflection reports due to unexpected reasons, then please contact me within 48 h of the deadline by email so that we can make alternate arrangements for you to make up the missed
work/deadline. In all these matters, we expect the student to comply with the Academic Honesty Statement and Academic Code of Conduct.

Accommodation Statement
The University of Massachusetts Amherst is committed to providing an equal educational opportunity for all students. If you have a documented physical, psychological, or learning disability on file with Disability Services (DS), you may be eligible for reasonable academic accommodations to help you succeed in this course. If you have a documented disability that requires an accommodation, please notify me within the first two weeks of the semester so that we may make appropriate arrangements.

Academic Honesty Statement
Since the integrity of the academic enterprise of any institution of higher education requires honesty in scholarship and research, academic honesty is required of all students at the University of Massachusetts Amherst. Academic dishonesty is prohibited in all programs of the University. Academic dishonesty includes but is not limited to: cheating, fabrication, plagiarism, and facilitating dishonesty. Appropriate sanctions may be imposed on any student who has committed an act of academic dishonesty. Instructors should take reasonable steps to address academic misconduct. Any person who has reason to believe that a student has committed academic dishonesty should bring such information to the attention of the appropriate course instructor as soon as possible. Instances of academic dishonesty not related to a specific course should be brought to the attention of the appropriate Department Head or Chair. Since students are expected to be familiar with this policy and the commonly accepted standards of academic integrity, ignorance of such standards is not normally sufficient evidence of lack of intent (http://www.umass.edu/dean_students/codeofconduct/acadhonesty/).

Names and Pronouns
Everyone has the right to be addressed by the name and pronouns that they use for themselves. Students can indicate their preferred/chosen first name and pronouns on SPIRE, which appear on class rosters. Please let me know what name and pronouns I should use for you if they are not on the roster. A student’s chosen name and pronouns are to be respected at all times in the classroom.