First-Year Seminar in Technology and Innovation (3 credit hours)

Course Information at a Glance:
Subject code: WSUE 102A
Classroom: Experiential Engineering Building, 3rd floor, room 338

Sections:

<table>
<thead>
<tr>
<th>CRN</th>
<th>Time</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>14048</td>
<td>MW 9:30am-10:45am</td>
<td>Corcoran</td>
</tr>
<tr>
<td>14787</td>
<td>MW 12:30pm – 1:45pm</td>
<td>Mykoniatis</td>
</tr>
<tr>
<td>14789</td>
<td>MW 2:00pm – 3:15pm</td>
<td>Mykoniatis</td>
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<tr>
<td>14786</td>
<td>TR 9:30am-10:45am</td>
<td>Corcoran</td>
</tr>
<tr>
<td>14788</td>
<td>TR 12:30pm – 1:45pm</td>
<td>Corcoran</td>
</tr>
<tr>
<td>14790</td>
<td>TR 2:00pm – 3:15pm</td>
<td>Hadley</td>
</tr>
</tbody>
</table>

Instructor Information at a Glance:

<table>
<thead>
<tr>
<th>Samantha (Sam) Corcoran</th>
<th>Konstantinos Mykoniatis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engineering Educator</td>
<td>Engineering Educator</td>
</tr>
<tr>
<td><a href="mailto:Samantha.corcoran@wichita.edu">Samantha.corcoran@wichita.edu</a></td>
<td><a href="mailto:Konstantinos.mykoniatis@wichita.edu">Konstantinos.mykoniatis@wichita.edu</a></td>
</tr>
<tr>
<td>Office in P2 128</td>
<td>Office in Wallace Hall 300-suite</td>
</tr>
<tr>
<td>Office hours by appointment</td>
<td>Office hours by appointment</td>
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<table>
<thead>
<tr>
<th>Jennifer Hadley</th>
<th>Nathan Smith</th>
</tr>
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<tbody>
<tr>
<td>Engineering Educator</td>
<td>Lab Manager</td>
</tr>
<tr>
<td><a href="mailto:Jennifer.hadley@wichita.edu">Jennifer.hadley@wichita.edu</a></td>
<td><a href="mailto:nathan.smith@wichita.edu">nathan.smith@wichita.edu</a></td>
</tr>
<tr>
<td>Office in Wallace Hall 3rd floor</td>
<td>Office in EEB 105</td>
</tr>
<tr>
<td>Office hours by appointment</td>
<td>Office hours by appointment</td>
</tr>
</tbody>
</table>

Note: Weather Cancellations – Call 978-6633 (select 2) to obtain information on weather related class cancellations.

How to use this syllabus:
This syllabus provides you with information specific to this course, and it also provides information about important university policies. This document should be viewed as a course overview; it is not a contract and is subject to change as the semester evolves. When changes need to be made the instructor will make an announcement inside Blackboard and email it to all students. For more detail on how to use a syllabus, see http://webs.wichita.edu/?u=ofdss&p=/students/syllabusinformation/.

Overview
This general education seminar course will be an integral part of your general education at Wichita State University. You will explore a broad topic from a variety of different disciplinary perspectives. In this course you will become part of the community of academic learners whose responsibility it is to ask questions, explore and exchange ideas, and become effective critical thinkers. Additionally, you will have the opportunity to engage with your fellow students and WSU faculty and staff by participating in activities aimed to further connect you to WSU.
**General Education Mission**
The mission of general education is to provide a well-rounded education that enables you to live the fullest most meaningful life possible regardless of your particular career preparation. Embedded throughout this course and furthered in the major are the skills that enable graduates to contribute productively to society and the on-going culture.

**General Education Goal**
The goal of general education is to enable you to live a rich, meaningful life by developing an informed appreciation of the arts, humanities, and natural and social sciences; an ability to intelligently follow and participate in current events, and a sensitive and tutored appreciation of diverse cultures and ways of living.

<table>
<thead>
<tr>
<th>Course Learner Outcomes (CLO)</th>
<th>General Education Outcomes (GEO)</th>
</tr>
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<tbody>
<tr>
<td>Upon completion of this course, you will:</td>
<td>Upon completion of this course, you will have started on your journey to:</td>
</tr>
<tr>
<td>1. Describe the design thinking process</td>
<td>1. Acquire knowledge in the arts, humanities, and/or natural and social sciences</td>
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<tr>
<td>2. Demonstrate an entrepreneurial mindset using design thinking</td>
<td>2. Demonstrate the ability to think critically and independently</td>
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<tr>
<td>3. Effectively write and orally communicate to a variety of audiences</td>
<td>3. Effectively write and speak</td>
</tr>
<tr>
<td>4. Apply the design thinking process to create a technically feasible prototype based on user need and feedback</td>
<td>4. Employ analytical reasoning and problem solving techniques</td>
</tr>
<tr>
<td>5. Compare and contrast the value of specific technological innovations and their impact to society</td>
<td>5. Develop fundamentals of information literacy and library research</td>
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<tr>
<td>6. Participate in a multi-disciplinary team and incorporate diverse points of view</td>
<td>6. Develop an appreciation for diversity</td>
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**Student Success Outcomes (SSO)**
During this course, you will have the opportunity to:

1. Connect to faculty and other students to develop an appreciation for others and respect for diversity of thought.
2. Develop more effective study and life skills in areas including information literacy, time management, note taking, test taking, personal finance, and learning styles.
3. Immerse yourself into the Wichita State community to understand resources, campus traditions and culture and the value of student involvement.
Course Content
WSUE 102, Introduction to Technology and Innovation, uses hands-on projects to guide first year freshmen through the design thinking process to develop innovative and creative problem-solving skills.

Students will learn about historical innovations and their impact on society by watching Steven Johnson’s PBS documentary How We Got to Now: Six Innovations that Made the Modern World.

Students then practice the process of innovation using design thinking as “a methodology for innovation that combines creative and analytical approaches and requires collaboration across disciplines.” Design thinking focuses on empathy to understand the user and design to meet their needs.

Students will finally apply the design thinking process to build a working prototype that addresses a specific identified need in the community, third world country, or society at large. Teams will enter their project and compete in the Koch Innovation Challenge (see details in the Koch section below).

Lectures and assignments will reinforce study skills, communication skills, learning styles, problem solving, reflective writing, public speaking, and teamwork. Students will be given instruction on safely using hand tools and basic shop equipment. Several assignments and projects will directly address the needs of society and how to identify appropriate areas where technology and innovation can address those needs.

Guest speakers from different areas on campus will be invited to speak and introduce students to their respective area. This may include WSU Ventures, Career Development, Ablah Library, Counseling & Testing, student organizations, or various successful alumni.

Major Topics
The topics in this course include design thinking, history of technological innovations, teamwork, entrepreneurship, innovation, reflective writing, technical communication, success in the classroom, laboratory safety and equipment training, societal needs, economic analysis, and prototyping.

Required Texts
You will need to purchase or rent the following book:
- How We Got to Now: Six Innovations that Made the Modern World by Steven Johnson
- ISBN 9781594633935
- Online at WSU Bookstore: $18 new; $13 used

All other course materials including videos are from free online sources, which will be provided.

The PBS video series How We Got to Now will be watched in its entirety, six one-hour documentaries. They are free to students with a myWSU ID and password. These will be available on the course Blackboard.
The main source on Design Thinking will be Stanford’s d.school free online curriculum, found at http://dschool.stanford.edu/use-our-methods/ and also at http://futureofstuffchallenge.org/. Materials will be provided in the course Blackboard.

**Course Requirements**
Attendance for this course is required and will be graded. Active participation is crucial to both you and your teammates since there will be hands-on activities in most classes. If you need to miss class be sure you have prior approval from the instructor or an approved exception (doctor’s note, etc.). You may have up to two (2) unexcused absences; any additional unexcused absences will result in a drop of one letter grade. More than four (4) unexcused absences will result in failure of the course—a grade of F.

All students are requested to participate in Wu’s Big Event, a service learning activity. Transportation and meals will be provided during this all-day event. Students will complete a pre-reflection survey, complete a volunteering activity in the community, and then complete a post-reflection survey. This will fulfill your first-year seminar service learning requirement. Refer below for dates and times and when to sign up. If you are unable to participate in this event please contact the instructor to arrange an alternative activity.

**Course Definition and Assignment of Credit Hours:** The expectation of work in order to be successful in this 3-credit course is three hours of out of class work for each hour spent in class. This includes work assigned online through Blackboard, readings, videos, written assignments and other course related activities.

**Diversity Expectations:** Issues related to diversity are considered in all general education courses (e.g., ethnicity, race, socioeconomic status, gender, exceptionalities, language, religion, sexual orientation, and geographical area). All course content and required assignments will demonstrate a value of and respect for diversity.

**Class meetings:** Attendance and active participation are required at all class meetings. Since the majority of the time spent in class will consist of hands-on projects in teams, it is expected that each of you will actively participate. Active participation means showing up, completing reading assignment(s) in advance and coming to class prepared to participate in the project and related discussion.

Most class meetings will be in the main classroom, EE 338; this room is designed for teamwork and collaborative activities. All tool training and prototype building activities will be in the lab, called the Project Innovation Hub, in EE 105; meet here anytime with your team during open hours to work on your projects. Refer to the main schedule to see the room for each class period.

**Readings:** The readings for this course include the common read book provided to all first-year freshman, and the *How We Got to Now* book. There will be one written assignment based off this book.
Writing Assignments: There will be several different types of writing assignments (reflective surveys, two written reports, an opportunity statement for the prototype, and other technical writing) for this course. Some assignments will be graded and taken through the writing process; others will be given credit, but will not receive a letter grade.

Information Literacy and Library Research: Information literacy forms the basis for lifelong learning, encourages critical analysis, highlights the global nature of information, and creates informed citizens and professionals. Through its instruction program and liaison services, the University Libraries provides support by teaching information literacy skills to students – skills that involve the ability to find, retrieve, analyze, use, and critically evaluate information needed for library assignments and research. A liaison librarian will be assigned and embedded in Blackboard for this course. The librarian will work with your instructor to customize library instruction for the class, which may include face-to-face sessions, online tutorials, videos, and/or resource guides.

Student Success: There are a number of skills you will learn that will contribute to your overall success in this course and beyond. They include improved study skills and exploration of learning styles and campus resources that can help you reach your academic potential. Throughout the course, you will participate in exercises and receive information on a number of topics and in various formats such as class presentations, guest speakers, reflection papers, classroom activities, peer mentoring or online modules.

Involvement on Campus: You will be required to attend three events outside of class. Some of these events will require a reflective writing piece and others will not. Regardless, attending these events is an integral part of the course requirements. You will be required to provide evidence of attendance (details to follow).

Required events:
Academic Convocation (fall semester only): September 20, 9:30am, Wilner Auditorium
Wu’s Big Event: Saturday, 10/7/17, 9:00am (sign up online www.wichita.edu/bigevent)

Koch Innovation Challenge
The Koch Innovation Challenge will be an annual competition that will support the College of Engineering in fostering a culture of creativity, innovation, entrepreneurship, and teamwork among WSU students. Cross-disciplinary teams of new freshmen and transfer students studying engineering, art and design, business, and other disciplines will compete for funding and scholarships to invent products and technologies. The grand champions of the competition will compete nationally at a collegiate entrepreneurs’ conference. The goal is to immediately begin preparing students the moment they join WSU to become real world-ready graduates with an entrepreneurial mindset.

The annual Koch Innovation Challenge will emphasize teamwork and entrepreneurship. In addition to a technically feasible and potentially profitable prototype, competing cross-disciplinary teams will submit a basic business plan or opportunity statement to determine market size, profitability, and potential for commercialization.
Winning entries will have:
- Demonstrated utility and technical feasibility
- Met technical, economic, legal, and regulatory requirements
- Featured a novel and practical design
- Demonstrated potential for commercialization including a market assessment, and proposed regulatory and intellectual property strategies

The College of Engineering will organize the Koch Innovation Challenge from its WSUE 102A Introduction to Technology & Innovation course that includes access to a project innovation laboratory. Lectures, lab assignments, and team building activities supporting the ideals of the competition will be provided to all cross-disciplinary student team members.

All students in WSUE 102A will participate in the fall pitch competition with their class team. Students on the five winning teams will receive a scholarship and seed money to continue working on their project. Winning teams will be encouraged to take a course in the spring semester to help them further develop their prototype and business plan before the spring Koch Innovation Challenge Grand Championship competition; the Grand Champion team will go on to compete at a national pitch competition in the following fall.

**Course Grading**
The grading in the class will include assignments, written papers, and the final project. Use the scoring rubrics provided in Blackboard (within the assignment) to ensure the highest grade possible.

In general, late assignments are unacceptable. We do understand if there are extenuating circumstances, so please talk directly with your instructor if you know that you are in danger of missing an assignment. Each instructor has their own policy.

**Course Evaluation and Assessment**
The grading in the class will simply be the accumulation of points for the final grade. No low scoring assignments or quizzes will be dropped. The breakdown is below:

- 25% - Freshman Seminar Student Success Skills (study skills, writing, information literacy, etc.)
- 22% - Teamwork
- 20% - Innovation Design Process
- 20% - Written Reports
- 13% - Koch Innovation Challenge competition

WSU uses a plus/minus letter grade system for final grades and to calculate grade point averages. In this course, grades are assigned according to the following chart and students will receive a letter grade using the standards of evaluation described below. (Note: In other courses grades might be assigned differently.)
<table>
<thead>
<tr>
<th>Percent</th>
<th>Letter Grade</th>
<th>Grade Points</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>100-95%</td>
<td>A</td>
<td>4.00</td>
<td>The A range denotes excellent performance.</td>
</tr>
<tr>
<td>94-90%</td>
<td>A-</td>
<td>3.67</td>
<td></td>
</tr>
<tr>
<td>89-87%</td>
<td>B+</td>
<td>3.33</td>
<td></td>
</tr>
<tr>
<td>86-84%</td>
<td>B</td>
<td>3.00</td>
<td>The B range denotes good performance.</td>
</tr>
<tr>
<td>83-80%</td>
<td>B-</td>
<td>2.67</td>
<td></td>
</tr>
<tr>
<td>79-77%</td>
<td>C+</td>
<td>2.33</td>
<td></td>
</tr>
<tr>
<td>76-74%</td>
<td>C</td>
<td>2.00</td>
<td>The C range denotes satisfactory performance.</td>
</tr>
<tr>
<td>73-70%</td>
<td>C-</td>
<td>1.67</td>
<td></td>
</tr>
<tr>
<td>69-67%</td>
<td>D+</td>
<td>1.33</td>
<td></td>
</tr>
<tr>
<td>66-64%</td>
<td>D</td>
<td>1.00</td>
<td>The D range denotes unsatisfactory performance.</td>
</tr>
<tr>
<td>63-60%</td>
<td>D-</td>
<td>0.67</td>
<td></td>
</tr>
<tr>
<td>60% &amp;below</td>
<td>F</td>
<td>0.00</td>
<td>F denotes failing performance.</td>
</tr>
</tbody>
</table>

The following descriptive criteria are used for all graded activities (papers, projects, reflections, participation) in this course.

Grade of A-, A
“A” level work exudes “excellence”. Excellence is demonstrated through completeness, reason, reflection, a high level of critical thinking, creativity, original thought and application of knowledge, readings, experiences, class discussions, and theory beyond what would be expected. This is a **WOW** assignment.

Grade of B-, B, B+
“B” level work shows a clear understanding of concepts/topics/processes and is well-organized, clear, concise and complete. Originality of thought, reflection, and creativity are evident although not to the extent found in “A” work. Application of prior knowledge, experiences, readings, and theory is evident. This is a **GOOD** assignment.

Grade of C or C+
“C or C+” level work shows a completed assignment with minimal critical thinking. Little original thought, reflection or application of knowledge, experience, readings, or theory is evident. Creativity is lacking. This work demonstrates a very basic understanding of the course concepts/topics/processes. This is a **FAIR** assignment.

Grade of D+, D, D- or C-
“D or C-” level work demonstrates a lack of understanding of the theories and concepts/topics/processes addressed in class and in the coursework. Minimal or no effort is observable. No original thought or application of knowledge is demonstrated. Oral or written communication skills are poor, and the work may be incomplete. This is an **UNACCEPTABLE** assignment.
Grade of F
“F” quality work is not expected in this course.

Important Notes

**Academic Honesty:** A standard of honesty, fairly applied to all students, is essential to a learning environment. Students abridging a standard of honesty must accept the consequences; penalties are assessed by appropriate classroom instructors or other designated people. Serious cases may result in discipline at the college or University level and may result in suspension or dismissal. Dismissal from a college for academic dishonesty constitutes dismissal from the University.

Students are responsible for knowing and following the Student Code of Conduct [http://webs.wichita.edu/inaudit/ch8_05.htm](http://webs.wichita.edu/inaudit/ch8_05.htm) and the Student Academic Honesty policy [http://webs.wichita.edu/inaudit/ch2_17.htm](http://webs.wichita.edu/inaudit/ch2_17.htm).

Wichita State University rules and regulations on academic honesty are strictly enforced. Within Blackboard, SafeAssign will be used to check all paper submissions to guard against plagiarism. Please refer to the WSU Undergraduate catalog for more details. On the first occurrence of plagiarism, the student will automatically receive a grade of zero for the assignment. Should a second instance of plagiarism occur, the student would receive a grade of F and fail the course.

**Intellectual Property:** Wichita State University students are subject to Board of Regents and University policies (see [http://webs.wichita.edu/inaudit/ch9_10.htm](http://webs.wichita.edu/inaudit/ch9_10.htm)) regarding intellectual property rights. Any questions regarding these rights and any disputes that arise under these policies will be resolved by the President of the University, or the President’s designee, and such decision will constitute the final decision.

**Disabilities:** If you have a physical, perceptual, psychiatric/emotional, medical, or learning disability that may impact your ability to carry out assigned course work, contact the Office of Disability Services (DS), Grace Wilkie Hall room 203. (Voice/TDD 978-3309). ODS will review your concerns, confirm your disability, and determine, with you, what accommodations are necessary. All information and documentation of your disability is confidential and will not be released by DS without your written permission.

**Inclusive Excellence:** Wichita State University is committed to achieving “Inclusive Excellence” and institutional strength through curricula, co-curricula, and other practices, which promote and encourage the intermingling of its students, faculty, and staff from different backgrounds, in a challenging intellectual and multicultural climate that is marked by respect and appreciation for the spectrum of human diversity. The University is also committed to an “all-inclusive” diversity and does not discriminate on the basis of race, ethnicity, gender, gender identity/expression, sexual orientation, age, socioeconomic status, disability, religion, national origin, or military status.
Counseling & Testing: The WSU Counseling & Testing Center provides professional counseling services to students, faculty and staff; administers tests and offers test preparation workshops; and presents programs on topics promoting personal and professional growth. Services are low cost and confidential. They are located in room 320 of Grace Wilkie Hall, and their phone number is (316) 978-3440. The Counseling & Testing Center is open on all days that the University is officially open. If you have a mental health emergency during the times that the Counseling & Testing Center is not open, please call COMCARE Crisis Services at (316) 660-7500.

Student Health Services: WSU’s Student Health clinic is located in Ahlberg Hall. Hours are 8:00am to 4:00pm (3:00pm on Fridays), though the clinic may be closed occasionally on Wednesdays from noon to 1:30pm. In addition to outpatient and preventive care (including immunizations, a prescription service, and testing/counseling for sexually transmitted infections), Student Health can handle minor injuries. All services are confidential. For more information see www.wichita.edu/studenthealth.

The Heskett Center and Campus Recreation: Whether you want to be active on campus, relieve the stress from classes or take care of your body, Wichita State Campus Recreation is the place for you. Campus Recreation, located inside the Heskett Center, contributes to the health, education, and development of Wichita State University students, faculty, staff, alumni, and community members by offering quality programs and services. With many programs and facilities that are free to all students and members, Campus Recreation offers its members limitless opportunities. For more information about our services see http://www.wichita.edu/hseskett.

Shocker Alert System: SAS facilitates electronic emergency notification to individual faculty, staff, and students within the University community are delivered through mass e-mail and cell phone text messaging. See www.wichita.edu/alert to elect to opt-in to SAS to receive emergency notification by text message.

Concealed Carry Policy
The Kansas Legislature has legalized concealed carry on public university campuses. Guns must be out of view, concealed either on the body of the carrier, or backpack, purse or bag that remains under the immediate control of the carrier. Gun owners must familiarize themselves with WSU’s Concealed Carry Policy at http://webs.wichita.edu/?u=wsunews&p=/weapons_policy_documents and the Kansas Board of Regent’s policy at http://www.kansasregents.org/about/policies-by-laws-missions/board_policy_manual_2/chapter_ii_governance_state_universities_2/chapter_ii_full_text#weapons. If you believe that there has been a violation of this policy, please contact the University Police Department at 316 978-3450.

Title IX: Title IX of the Educational Amendments of 1972 prohibits discrimination based on sex in any educational institution that receives federal funding. Wichita State University does not tolerate sex discrimination of any kind including: sexual misconduct; sexual harassment; relationship/sexual violence and stalking. These incidents may interfere with or limit an individual’s ability to benefit from or participate in the University’s educational
programs or activities. Students are asked to immediately report incidents to the University Police Department, (316) 978-3450 or the Title IX Coordinator (316) 978-5177. Students may also report incidents to an instructor, faculty or staff member, who are required by law to notify the Title IX Coordinator. If a student wishes to keep the information confidential, the student may speak with staff members of the Counseling and Testing Center (316) 978-3440 or Student Health Services (316)978-3620. For more information about Title IX, go to: http://www.wichita.edu/thisis/home/?u=titleixf

**Video and Audio Recording:** Video and audio recording of lectures and review sessions without the consent of the instructor is prohibited. Unless explicit permission is obtained from the instructor, recordings of lectures may not be modified and must not be transferred or transmitted to any other person, whether or not that individual is enrolled in the course.

**CARE Team:** Wichita State University is committed to the safety and success of and cares about all members of the University community. If you or someone you know needs support, is distressed, or exhibits concerning behavior that is interfering with their own or others’ academic or personal success or the safety of members of our community, resources and assistance are available. As your Faculty, I may seek support for you. If you or another member of our campus community is in need of help, please submit a concern at http://www.wichita.edu/ubit or call any CARE team member listed on that webpage. In case of emergency, please call the University Police Department at (316) 978-3450 or 911.
Schedule:
A separate XLS version of the schedule below is available in Blackboard under the “Start Here!” content section. Schedule subject to change.