MEMORANDUM

To: Dr. Jacen Maier Moore, Chair
Undergraduate Curriculum Committee

Through: Dr. Carlos Ferregut, Interim Dean
College of Engineering

Through: Dr. Patricia A. Nava, Associate Dean for Academic Affairs
College of Engineering

Through: Dr. Luis Contreras, Chair
Curriculum Committee
College of Engineering

Through: Dr. Roger Gonzalez Chair,
Department of Engineering Education and Leadership

From: Melissa Silverstein and David Novick

DATE: May 12, 2017

Subject: New and redesignated courses relating to law, innovation, and commercialization

To build a more extensive and more coherent sequence of courses available to students in the College of Engineering, and to provide better access to courses relevant to students preparing for law school, we propose these additions and changes:

- **New Course: ENGR 4330 Innovation in Technology.** This course would also be listed as EL 4330 Innovation in Technology. The course replaces the identical course ENGR 4320; the change in number is to make the course grouping coherent. This course, with its predecessor course CS 4390, has been taught three times since 2014. The course develops design skills for advanced students in engineering and computer science, building on the students' technical knowledge to
help them identify and find novel solutions for difficult design problems. To do this, the course enables students to improve their innovation skills and to understand the role of innovation in technology-based enterprises. Working with the innovation techniques of Liberating Structures as a central theme, the course integrates improvisation and story-telling to build creativity. Students will apply these techniques to develop computer-game scenarios, mobile applications, and, more broadly, ideas for technology-based business and public-sector start-ups. Students will also develop perspective on how design affects translation to commerce or other use. The syllabus and course outline for the course are attached as Appendices A and B, respectively.

- **New Course: ENGR 4331 Intellectual Property Law.** This course would also be listed as EL 4331. The course is normally cross-listed as POLS 4325 for pre-law students. The course, currently offered as CS 4390 (and cross-listed in other departments), has been taught five times since 2011. The course introduces students to intellectual property law, with particular attention to topics of interest for the fields of engineering and computing. The course focuses on the constitutional provisions, laws and court decisions that create and define rights in intellectual property, with primary attention to patents and copyrights, and with secondary attention to trade secrets. Students will gain basic skills in critical thinking, reading, understanding and explaining statutes and cases relating to intellectual property. The syllabus and course outline for the course are attached as Appendices C and D, respectively.

- **New Course: ENGR 4332 Law and Commercialization.** This course would also be listed as EL 4332 Law and Commercialization. We expect that the course would also be cross-listed as POLS 4325 for pre-law students. The course introduces students to the technology commercialization process, with particular attention to topics of interest for the fields of engineering, science, and business. The course complements and creates a sequence with the existing course ENGR 4321 Intellectual Property Law (to be renumbered as ENGR 4331). The new course, ENGR 4322, (a) fits closely with goals of the College of Engineering with respect to innovation and entrepreneurship and (b) provides additional preparation for students preparing for law school. The syllabus and course outline for the course are attached as Appendices E and F, respectively.

In parallel with these proposed changes, we are also proposing corresponding changes in the graduate curriculum. In particular, the proposed new and redesignated courses would have corresponding graduate sections as follows:

<table>
<thead>
<tr>
<th>Undergraduate Course</th>
<th>Graduate Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGR 4330 / EL 4330 Innovation in Technology</td>
<td>ENGR 5330 / EEL 5330 Innovation in Technology</td>
</tr>
<tr>
<td>ENGR 4331 / EL 4331 Intellectual Property Law</td>
<td>ENGR 5331 / EEL 5331 Intellectual Property Law</td>
</tr>
<tr>
<td>ENGR 4332 / EL 4332 Law and Commercialization</td>
<td>ENGR 5332 / EEL 5332 Law and Commercialization</td>
</tr>
</tbody>
</table>
New and redesignated UG courses relating to law, innovation, and commercialization

Approval Page

Proposal Title: New and redesignated courses relating to law, innovation, and commercialization: EL4330, 4331, 4332 and ENGR4330, 4331, 4332

Department Chair
I have read the enclosed proposal and approve this proposal on behalf of the department

Signature

Date

5/12/2017

College Curriculum Committee Chairperson
I have read the enclosed documents and approve the proposal on behalf of the college curriculum committee.

Signature

Date

5/12/2017

College Dean
I have read the enclosed documents and approve the proposal on behalf of the college. I certify that the necessary funds will be allocated by the college in support of this proposal.

Signature

Date

5/15/2017

Graduate Council/Undergraduate Curriculum Committee
Council Action: □ Approved □ Returned to College

Date of Action Report: ________________________________

Signature, Chairman

Date
Course Deletion Form

Courses to be deleted: (You may list several on the same sheet)

<table>
<thead>
<tr>
<th>Subject Prefix</th>
<th>Course Number</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>ENGR</td>
<td>4320</td>
<td>Innovation in Technology</td>
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</tbody>
</table>

Rationale for Deleting the Course(s)

The course is being replaced by ENGR 4330 / EL 4330
Course Add Form

Course Information

Subject Prefix and # _______ ENGR 4330 _______ TCCN (If applicable) _______

Title (29 characters or fewer): _______ Innovation in Technology _______

Dept. Administrative Code _______ CIP Code _______

Course Level (UG, GR, DR, or SP): _______ UG _______

Will this course be taught during a part of term in addition to a full 16-week term? (Y/N): N

If so, what term length will this course be taught in? (e.g., 8 weeks) ____________

How many times may the course be taken for credit? (Please indicate 1-9 times): 1

Should the course be exempt from the "Three Repeat Rule?" (Y/N): N

Grading Mode: __X__ Standard ______ Pass/Fail ______ Audit

Description (600 characters maximum):
This course develops design skills for advanced students in engineering and computer science, building on the students' technical knowledge to help them identify and find novel solutions for difficult design problems. To do this, the course enables students to improve their innovation skills and to understand the role of innovation in technology-based enterprises. Working with the innovation techniques of Liberating Structures as a central theme, the course integrates improvisation and story-telling to build creativity. Students will apply these techniques to develop computer-game scenarios, mobile applications, and, more broadly, ideas for technology-based business and public-sector start-ups. Students will also develop perspective on how design affects translation to commerce or other use.

Contact Hours (per week): 3 Lecture Hours ______ Lab Hours ______ Other

Types of Instruction (Schedule Type): (Underline all types of instruction which reflect how the course should be scheduled in Banner.):

A Lecture H Thesis
B Laboratory I Dissertation
C Practicum K Lecture/Lab Combined
D Seminar O Discussion or Review (Study Skills)
E Independent Study P Specialized Instruction
F Private Lesson Q Student Teaching

Equivalent Courses

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<tr>
<td>EL 4330</td>
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COMM 4350

Prerequisite Course(s)

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Restrictions

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Rationale for Adding the Course

Existing course being renumbered
Course Add Form

Course Information

Subject Prefix and #  ENGR 4331  TCCN (If applicable) 

Title (29 characters or fewer):  Intellectual Property Law

Dept. Administrative Code 0965  CIP Code 

Course Level (UG, GR, DR, or SP):  UG

Will this course be taught during a part of term in addition to a full 16-week term? (Y/N):  N

If so, what term length will this course be taught in? (e.g., 8 weeks) 

How many times may the course be taken for credit? (Please indicate 1-9 times):  1

Should the course be exempt from the “Three Repeat Rule?” (Y/N):  N

Grading Mode:  X  Standard  Pass/Fail  Audit

Description (600 characters maximum):
This course introduces students to intellectual property law, with particular attention to topics of interest for the fields of engineering and computing. The course focuses on the constitutional provisions, laws and court decisions that create and define rights in intellectual property, with primary attention to patents and copyrights, and with secondary attention to trade secrets. Students will gain basic skills in critical thinking, reading, understanding and explaining statutes and cases relating to intellectual property.

Contact Hours (per week):  3  Lecture Hours  Lab Hours  Other

Types of instruction (Schedule Type):  (Underline all types of instruction which reflect how the course should be scheduled in Banner.):

A  Lecture  H  Thesis
B  Laboratory  I  Dissertation
C  Practicum  K  Lecture/Lab Combined
D  Seminar  O  Discussion or Review (Study Skills)
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Prerequisite Course(s)
Corequisite Course(s):

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Rationale for Adding the Course

To build a more extensive and more coherent sequence of courses available to students in the College of Engineering, and to provide better access to courses relevant to students preparing for law school.
Course Add Form

Course Information

Subject Prefix and #  ENGR 4332  TCCN (If applicable)

Title (29 characters or fewer):  Law and Commercialization

Dept. Administrative Code  0965  CIP Code

Course Level (UG, GR, DR, or SP):  UG

Will this course be taught during a part of term in addition to a full 16-week term? (Y/N): N

If so, what term length will this course be taught in? (e.g., 8 weeks)

How many times may the course be taken for credit? (Please indicate 1-9 times):

Should the course be exempt from the “Three Repeat Rule?” (Y/N):

Grading Mode:  X  Standard  Pass/Fail  Audit

Description (600 characters maximum):
This course introduces students to the technology commercialization process, with particular attention to topics of interest for the fields of engineering, science, and business. The course focuses on the practical aspects of invention disclosure, patent protection, marketing, and licensing, and technology start-up formation and fundraising. Students will gain skills in invention triaging, patent claim amendments, drafting patent marketing materials, and negotiating commercialization-related contracts.

Contact Hours (per week):  3  Lecture Hours  Lab Hours  Other

Types of Instruction (Schedule Type): (Underline all types of instruction which reflect how the course should be scheduled in Banner.):

A  Lecture  H  Thesis
B  Laboratory  I  Dissertation
C  Practicum  K  Lecture/Lab Combined
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Rationale for Adding the Course

To build a more extensive and more coherent sequence of courses available to students in the College of Engineering, and to provide better access to courses relevant to students preparing for law school.
Course Add Form

Course Information

Subject Prefix and #  EL 4330  TCCN (If applicable)  

Title (29 characters or fewer): Innovation in Technology

Dept. Administrative Code  0965  CIP Code  

Course Level (UG, GR, DR, or SP):  UG  

Will this course be taught during a part of term in addition to a full 16-week term? (Y/N): N  

If so, what term length will this course be taught in? (e.g., 8 weeks)  

How many times may the course be taken for credit? (Please indicate 1-9 times): 1  

Should the course be exempt from the “Three Repeat Rule?” (Y/N): N  

Grading Mode: X Standard  Pass/Fail  Audit  

Description (600 characters maximum):
This course develops design skills for advanced students in engineering and computer science, building on the students’ technical knowledge to help them identify and find novel solutions for difficult design problems. To do this, the course enables students to improve their innovation skills and to understand the role of innovation in technology-based enterprises. Working with the innovation techniques of Liberating Structures as a central theme, the course integrates improvisation and story-telling to build creativity. Students will apply these techniques to develop computer-game scenarios, mobile applications, and, more broadly, ideas for technology-based business and public-sector start-ups. Students will also develop perspective on how design affects translation to commerce or other use.

Contact Hours (per week): 3 Lecture Hours  Lab Hours  Other  

Types of Instruction (Schedule Type): (Underline all types of instruction which reflect how the course should be scheduled in Banner.):  

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**Rationale for Adding the Course**

To build a more extensive and more coherent sequence of courses available to students in the College of Engineering, and to provide better access to courses relevant to students preparing for law school.
Course Information

Subject Prefix and #: EL 4331
TCCN (if applicable) 

Title (29 characters or fewer): Intellectual Property Law

Dept. Administrative Code 0965
CIP Code 

Course Level (UG, GR, DR, or SP): UG

Will this course be taught during a part of term in addition to a full 16-week term? (Y/N): N

If so, what term length will this course be taught in? (e.g., 8 weeks) 

How many times may the course be taken for credit? (Please indicate 1-9 times): 1

Should the course be exempt from the “Three Repeat Rule?” (Y/N): N

Grading Mode: X Standard Pass/Fail Audit 

Description (600 characters maximum):
This course introduces students to intellectual property law, with particular attention to topics of interest for the fields of engineering and computing. The course focuses on the constitutional provisions, laws and court decisions that create and define rights in intellectual property, with primary attention to patents and copyrights, and with secondary attention to trade secrets. Students will gain basic skills in critical thinking, reading, understanding and explaining statutes and cases relating to intellectual property.

Contact Hours (per week): 3 Lecture Hours Lab Hours Other 

Types of Instruction (Schedule Type): (Underline all types of instruction which reflect how the course should be scheduled in Banner.)

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<th>A</th>
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Equivalent Courses

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<td>ENGR 4331</td>
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Prerequisite Course(s)

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Rationale for Adding the Course

To build a more extensive and more coherent sequence of courses available to students in the College of Engineering, and to provide better access to courses relevant to students preparing for law school.
Course Add Form

Course Information

Subject Prefix and #: EL 4332 TCCN (if applicable) ____________

Title (29 characters or fewer): Law and Commercialization

Dept. Administrative Code: 0965 CIP Code ____________

Course Level (UG, GR, DR, or SP): UG

Will this course be taught during a part of term in addition to a full 16-week term? (Y/N): N

If so, what term length will this course be taught in? (e.g., 8 weeks) ____________

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Rationale for Adding the Course

To build a more extensive and more coherent sequence of courses available to students in the College of Engineering, and to provide better access to courses relevant to students preparing for law school.
Innovation in Technology
ENGR 4330/EL 4330/COMM 4350

Syllabus

Overview: This course develops design skills for advanced students in engineering and computer science, building on the students’ technical knowledge to help them identify and find novel solutions for difficult design problems. To do this, the course enables students to improve their innovation skills and to understand the role of innovation in technology-based enterprises. Working with the innovation techniques of Liberating Structures as a central theme, the course integrates improvisation and story-telling to build creativity. Students will apply these techniques to develop computer-game scenarios, mobile applications, and, more broadly, ideas for technology-based business and public-sector start-ups. Students will also develop perspective on how design affects translation to commerce or other use.

Texts:
- www.liberatingstructures.com

About the Course: This course is appropriate for students in the College of Engineering, in the College of Liberal Arts (especially Communications), and the College of Business Administration. Students will build upon the foundations of their respective disciplines to developed advanced skills in system design that enhance their capacity both to develop systems that meet users’ needs and to interact effectively with other members of cross-functional teams.

The class will meet one evening a week. Class sessions will include improvisation games and exercises, development of story-telling skills, and learning and application of techniques from the catalog of liberating structures.

Project assignments will include developing new scenes for an immersive computer game, proposing new mobile applications, and proposing new technology-based business and public-sector start-ups. Short daily writing assignments will also be required. The final exam will consist of project pitches.

About the Instructor: Dr. Novick is a professor in the Department of Engineering Education and Leadership. He serves as co-director of the Mike Loya Center for Innovation and Commerce and is the advisor/coach for UTEP’s Miners Improv League. He claims, although sensible people dispute this, to have a sense of humor.
Outcomes

Upon successful completion of this course, students will be able to demonstrate accomplishments of knowledge and comprehension, application and analysis, and synthesis and evaluation:

1. Knowledge and Comprehension

   Explain the elements and applications of the following principles and techniques useful in the design of technology:
   
   - Liberating structures
   - Creativity techniques
   - Basic principles of improvisation
   - Basic principles of story-telling

2. Application and Analysis

   Apply the following skills to developing and defining system requirements:
   
   - Improvisation
   - Story-telling
   - Liberating structures: Critical uncertainties, heard seen respected, TRIZ, simple ethnography, 15% solutions, 1-2-4-all
   - Creativity techniques: Altering clichés, brainwriting, six hats, association, lateral thinking, aleatory approaches, subconscious approaches, talking pictures, new-useful-feasible test, PINC filter

   Apply the following skills to the communication of system design:
   
   - Presenting a project pitch

3. Synthesis and Evaluation

   Demonstrate balanced understanding of system design requirement by completing the following projects:
   
   - Develop a scene for a video game
   - Write a report proposing an innovative mobile application
   - Write a report proposing an innovative business or public-sector start-up

**Standards of Conduct.** You are expected to conduct yourself in a professional and courteous manner, as prescribed by the UTEP Standards of Conduct. Graded work, such as homework and tests, is to be completed independently and should be unmistakably your own work, although you may discuss your project with other students in a general way. You may not represent as your own work material that is transcribed or copied from another person, book, or any other source, e.g., a Web page. The instructor is required to—and will—report academic dishonesty and any other violation of the Standards of Conduct to the Dean of Students.
Disabilities. If you have a disability and need classroom accommodations, please contact the Center for Accommodations and Support Services (CASS) at 747-5148, or by email to cass@utep.edu, or visit their office located in UTEP Union East, Room 106. For additional information, please visit the CASS website at www.sa.utep.edu/cass.

Assignments. Reading and homework assignments will be announced in class. If you miss a class, it is your responsibility to find out what you missed. You should expect to spend at least seven hours per week outside of class on reading and homework.

Grading. This course does not have examinations. For undergraduate students, the semester grade will be based on a combination on class participation, daily writing assignments, homework assignments, project assignments, and project presentations. The percentages are as follows:

- 25% Class participation
- 15% Daily writing assignments
- 10% Video-game scene development project report
- 15% Mobile application development project report
- 25% Start-up development project report
- 10% Final project presentations

For graduate students, the semester grade will be based on a combination on class participation, daily writing assignments, homework assignments, project assignments, and project presentations. The percentages are as follows:

- 20% Class participation
- 10% Daily writing assignments
- 10% Video-game scene development project report
- 15% Mobile application development project report
- 25% Start-up development project report
- 10% Final project presentations
- 10% Term paper: Reflection on relative effectiveness of critical thinking and creativity techniques
Course Outline

Innovation in Technology

- Week 1
  - Improv: Acceptance and contribution
  - Storytelling: Story about this product
  - Creativity: TTCT pre-test
- Week 2
  - Improv: Platform, incl. goals and conflict
  - Storytelling: Overview, conflict, theme
  - Critical Thinking: Heard seen respected
  - Project: P1 Intro
- Week 3
  - Improv: Three-part structure, conflict, and endowment
  - Storytelling: P1: Analyze stories; Maslow's hierarchy; concept
  - Creativity: Altering clichés
  - Project: P1 Analyze stories
- Week 4
  - Improv: Contributing, accepting, platform
  - Creativity: Brainwriting (for P2)
  - Project: P1 Demo scenes, P2: intro
- Week 5
  - Improv: Deferring and getting to the theme; new choice
  - Storytelling: Character
  - Critical Thinking: TRIZ
  - Creativity: Lateral thinking 1, Six Hats, Association
- Week 6
  - Improv: Characters and plot
  - Storytelling: Theme
  - Critical Thinking: Simple ethnography
  - Creativity: Aleatory: Random words
- Week 7
  - Improv: Conflict and choices
  - Storytelling: Structure I: overall plot
  - Critical Thinking: Simple ethnography
  - Creativity: RoarStack
  - Project: P3 Intro
- Week 8
  - Improv: Moving scene forward through realistic dialog
  - Creativity: Lateral thinking 2, Talking pictures
  - Project: P3 Generating ideas
• Week 9
  o Improv: Characters
  o Creativity: NUF (New Useful Feasible) Test
  o Project: P3: How to make a poster
• Week 10
  o Storytelling: Structure II: milestones, foreshadowing, first plot point
  o Creativity: PINC Filter
  o Project: P3 Ideas festival
• Week 11
  o Improv: Contributing
  o Critical Thinking: Critical uncertainties
  o Project: P3 Expanding solutions
• Week 12
  o Improv: Making things specific
  o Storytelling: Structure III: Second plot point
  o Project: P3 report round-robin feedback
• Week 13
  o Critical Thinking: 15% solutions
  o Project: P3 story round-robin feedback
• Week 14
  o Project: P3 Elevator pitches, Paths for commercialization, Review slides
• Week 15
  o Creativity: TTCT post-test
  o Projects: P3 practice talks
Appendix C: ENGR 4331 / EL 4331 Intellectual Property Law, Syllabus

Intellectual Property Law, Fall 2016
ENGR 4331 / EL 4331 / POLS 4325

Syllabus

Instructor: David Novick  Course Time: Tuesdays and Thursdays, 4:30 to 5:50 p.m.  Room: LART 204

Overview: This course introduces students to intellectual property law, with particular attention to topics of interest for the fields of engineering and computing. The course focuses on the constitutional provisions, laws and court decisions that create and define rights in intellectual property, with primary attention to patents and copyrights, and with secondary attention to trade secrets. Students will gain basic skills in critical thinking, reading, understanding and explaining statutes and cases relating to intellectual property.

Texts

- Required text: Loren & Miller, Intellectual Property Law: Cases and Materials (Version 4.1, 2016) (Semaphore Press). This required text is available for download only at www.semaphorepress.com. Semaphore Press uses a publishing model different from the traditional law school casebook publishers; in previous semesters, the price of the text from traditional publishers was $165. I encourage you to read about Semaphore Press's publishing approach on its Web site. This book has a suggested price of $30. I urge you to pay the suggested retail price in order to keep high-quality legal educational material available at reasonable prices.

About the Course: This course is appropriate both for students in engineering and computer science interested in entrepreneurship and commercialization and for students in a pre-law program. The course is presented in a traditional law-school format, emphasizing the Socratic method and oriented toward developing skills of critical thinking. Preparation for class is the key to success in the course. The course includes teamwork on researching actual patent ideas from local inventors and concludes with a moot-court appellate argument on current cases.

About the Instructor: Dr. Novick is a professor in the Department of Computer Science. He is a graduate of Harvard Law School and is an active member of the bar in the State of Oregon and the District of Columbia. Despite this, he has a sense of humor.

Course Outcomes
Upon successful completion of this course, students will be able to demonstrate accomplishments of knowledge and comprehension, application and analysis, and synthesis and evaluation:

1. **Knowledge and Comprehension**

   Explain the purpose and scope of:
   - US Constitution patent and copyright clause
   - Federal statutes on patent, copyright and trademark
   - Judicial decisions on intellectual property

   Explain the key concepts of:
   - Non-obviousness
   - Novelty
   - Authorship
   - Fair use
   - Trade secret
   - Copyright

2. **Application and Analysis**

   Apply skills of:
   - Critical thinking
   - Reading, understanding, explaining and applying IP-related statutes
   - Reading, understanding, explaining and applying IP-related cases
   - Analyzing the facts of a case in light of applicable law
   - Researching existing IP for an invention

3. **Synthesis and Evaluation**

   - Contrast the interests of authors vs. the interests of consumers
   - Discuss the public interest in the production of intellectual property
   - Prepare and deliver an appellate argument in an IP case

*Standards of Conduct.* You are expected to conduct yourself in a professional and courteous manner, as prescribed by the UTEP Standards of Conduct. Graded work, such as homework and tests, is to be completed independently and should be unmistakably your own work, although you may discuss your project with other students in a general way. You may not represent as your own work material that is transcribed or copied from another person, book, or any other source, e.g., a Web page. The instructor is required to—and will—report academic dishonesty and any other violation of the Standards of Conduct to the Dean of Students.
Disabilities. If you have a disability and need classroom accommodations, please contact the Center for Accommodations and Support Services (CASS) at 747-5148, or by email to cass@utep.edu, or visit their office located in UTEP Union East, Room 106. For additional information, please visit the CASS website at www.sa.utep.edu/cass.

Assignments. Reading and homework assignments will be handed out or announced in class. If you miss a class, it is your responsibility to find out what you missed. You should expect to spend at least seven hours per week outside of class on reading and homework.

Grading. For undergraduate students, the semester grade will be based on a combination of take-home, on-line quizzes, two midterm examinations (combination of short answer and short essay), projects involving IP research for inventions, and a moot court argument. The percentages are as follows:

- 10% Quizzes
- 40% Two midterm examinations
- 40% Projects
- 10% Moot court argument

For graduate students, the semester grade will be based on a combination of take-home, on-line quizzes, two midterm examinations (combination of short answer and short essay), projects involving IP research for inventions, a moot court argument, and a term paper. The percentages are as follows:

- 10% Quizzes
- 30% Two midterm examinations
- 30% Projects
- 10% Moot court argument
- 20% Term paper
Course Outline
Intellectual Property
Fall 2016

Subject to revision based on class progress

- Week 1
  - August 23, American judicial system, IP overview, misappropriation
  - August 25, Misappropriation
- Week 2
  - August 30, Trade secret: Defining a trade secret
  - September 1, Trade secret: Defining a trade secret
- Week 3
  - September 6, Trade secret: Misappropriation
  - September 8, Trade secret: Remedies
- Week 4
  - September 13, Trade secret: Inevitable disclosure
  - September 15, Patents: Introduction
- Week 5
  - September 20, Patents: Claim construction and definitiveness
  - September 22, Patents: Adequate disclosure
- Week 6
  - September 27, Patents: Patentable subject matter
  - September 29, Patents: Utility, Team Project 1 assignment; hand out Ex MT 1
- Week 7
  - October 4, Review; hand out Ex MT model answers
  - October 6, Midterm 1
- Week 8
  - October 11, Answers to Midterm 1
  - October 13, Patents: Novelty
- Week 9
  - October 18, Patents: Statutory Bars
  - October 20, Patents: Non-obviousness
- Week 10
  - October 25, Patents: Non-obviousness
  - October 27, Project 1 reports, Team Project 2 assignment
- Week 11
  - November 1, Copyright: Introduction, copyrightable subject matter
  - November 2, Copyright: Copyrightable subject matter
- Week 12
  - November 8, Copyright: Infringement
  - November 16 Copyright: Fair use
- Week 13
  - November 15, Copyright: Fair use; hand out Ex MT 2
  - November 17, Project 2 reports; moot court assignments; hand out Ex MT 2
- Week 14
  - November 22, Midterm 2
• November 24 (Thanksgiving)
  • Week 15
    o November 29, Answers to Midterm 2; practice for moot court appellate arguments
    o November 31, Practice for moot court appellate arguments
  • Final Exam: Tuesday, Dec 6, 4:00–6:45 p.m.
    o Moot court appellate arguments
Law and Commercialization, Fall 2018
ENGR 4332 / EL 4332 / POLS 4325

Syllabus

Instructor: Melissa Silverstein  
Course Time: Days TBD, Time TBD  
Room: (TBD)

Overview: This course introduces students to the technology commercialization process, with particular attention to topics of interest for the fields of engineering, science, and business. The course focuses on the practical aspects of invention disclosure, patent protection, marketing, and licensing, and technology start-up formation and fundraising. Students will gain skills in invention triaging, patent claim amendments, drafting patent marketing materials, and negotiating commercialization-related contracts.

Texts

- Required text: Dick J. Liou, From Concept To Commercialization: A Strategic Approach for Bringing Everyday Ideas to Market (2011) (CreateSpace Independent Publishing Platform). $34.95 on Amazon

About the Course: This course is appropriate both for students in engineering and science interested in entrepreneurship and commercialization and for students in a pre-law program. The course is presented in a lecture and discussion format, emphasizing the practical aspects of working in a university or industry technology commercialization office. Preparation for class is the key to success in the course. The course includes teamwork on patent searching, market analysis, developing patent marketing materials, and negotiating commercialization contracts. The course concludes with a presentation to a UTEP inventor panel on invention triages.

About the Instructor: Melissa Silverstein is the Director of UTEP’s Office of Technology Commercialization and a patent attorney. She graduated from Texas A&M School of Law and the University of Texas at San Antonio with a Bachelor’s Degree in Biology. Melissa is a native El Pasoan.

Course Outcomes

Upon successful completion of this course, students will be able to demonstrate accomplishments of knowledge and comprehension, application and analysis, and synthesis and evaluation:

1. Knowledge and Comprehension

   Explain the purpose and scope of:

   - U.S. and International patent system
   - Patent pre-filing process and prosecution
• Patent marketing materials
• Commercialization process overview including relevant contracts and negotiation

Explain the key concepts of:

• Patent searching
• Market analysis
U.S. and International patent filing

• Patent marketing materials
• Licensing
• Start-up companies

2. Application and Analysis

Apply skills of:

• Understanding and developing an invention triage, including patent searching and market analysis
• Understanding and developing patent marketing materials and industry contacts
• Drafting and negotiating a Non-Disclosure Agreement

3. Synthesis and Evaluation

• Prepare and deliver an invention triage to a panel of UTEP inventors
• Draft feedback from inventors on triage
• Reflect on the feedback from inventors to improve invention triage and decide to proceed with patent filing

Standards of Conduct. You are expected to conduct yourself in a professional and courteous manner, as prescribed by the UTEP Standards of Conduct. Graded work, such as projects and midterms, is to be completed independently and should be unmistakably your own work, although you may discuss your project with other students in a general way. You may not represent as your own work material that is transcribed or copied from another person, book, or any other source, e.g., a Web page. The instructor is required to—and will—report academic dishonesty and any other violation of the Standards of Conduct to the Dean of Students.

Disabilities. If you have a disability and need classroom accommodations, please contact the Center for Accommodations and Support Services (CASS) at 747-5148, or by email to cass@utep.edu, or visit their office located in UTEP Union East, Room 106. For additional information, please visit the CASS website at www.sa.utep.edu/cass.

Assignments. Reading and projects will be handed out or announced in class. If you miss a class, it is your responsibility to find out what you missed. You should expect to spend at least seven hours per week outside of class on reading and projects.
Grading. For undergraduate students, the semester grade will be based on a combination of class participation, three take-home projects, two midterm examinations (combination of short answer and short essay), and a final presentation. The percentages are as follows:

- 10% Class Participation
- 20% Project 1
- 20% Project 2 and Presentation
- 20% Project 3
- 30% Final Event

For graduate students, the semester grade will be based on a combination of class participation, four take-home projects, two midterm examinations (combination of short answer and short essay), and a final presentation. The percentages are as follows:

- 10% Class Participation
- 15% Project 1
- 15% Project 2 and Presentation
- 15% Project 3
- 15% Project 4
- 30% Final Event
Course Outline

Law and the Commercialization Process

Fall 2018

Subject to revision based on class progress

- Week 1 - Introduction
  - August 21, What is Technology Commercialization: Evolution, Laws, and Societal Impact
  - August 23, Commercialization Process: Overview and Governing Contracts
- Week 2 - Unit 1: Intellectual Property Overview and Patent Protection Logistics
  - August 28, Types of Intellectual Property, Filing Logistics
- Week 3 - Unit 1: Intellectual Property Overview and Patent Protection Logistics
  - September 4, Patent Pre-Filing Process: Triage (Patent Search, Market Analysis), Assign Project 1 (Triage)
- Week 4 - Unit 1: Intellectual Property Overview and Patent Protection Logistics
  - September 13, Midterm 1
- Week 5 - Unit 1: Intellectual Property Overview and Patent Protection Logistics
  - September 18, Patent Prosecution: §101 and §112 Rejections
  - September 20, Patent Prosecution: §102 and §103 Rejections, Project 1 Due
- Week 6 - Unit 1: Intellectual Property Overview and Patent Protection Logistics
  - September 25, Patent Prosecution: RCE, Appeal, Issuance, Maintenance
  - September 27, Patent Ownership: University Rules, Collaborations with Universities, Industry
- Week 7 - Unit 2: Patent Marketing
  - October 2, Marketing Basics: Marketing 101
  - October 4, Patent Marketing: Drafting One-Pagers, Assign Project 2 (One-Pager)
- Week 8 - Unit 2: Patent Marketing
  - October 9, Patent Marketing: Marketing Inventions to Industry
  - October 11, Project 2 Due and Presentation
- Week 9 – Unit 3: Commercialization Contracts
  - October 16, Contract Basics: Negotiation 101
  - October 18, Patent Licensing Process Overview
- Week 10 – Unit 3: Commercialization Contracts
  - October 23, Non-Disclosure Agreement, Memorandum of Understanding, Assign Project 3 (NDA)
  - October 25, Patent Option Agreement, Developing Diligence Milestones
- Week 11 – Unit 3: Commercialization Contracts
  - October 30, Patent License Agreements: Exclusive v. Non-Exclusive, Term Sheets
  - November 1, Patent License Agreements: Negotiation, Compliance
- Week 12 – Unit 3: Commercialization Contracts
  - November 6, Material Transfer Agreement, Sponsored Project Agreement, Project 3 Due
• Week 13 – Unit 3: Commercialization Contracts
  o November 13, Patent Ownership Release, SBIR/STTR Patent Use Agreement
  o November 15, Midterm 2 Review
• Week 14 – Unit 3: Commercialization Contracts
  o November 20, Midterm 2
  o November 22, NO CLASS (Thanksgiving)
• Week 15 – Unit 4: Start-Ups
  o November 27, Start-Up Formation: Incorporation, Founder's Agreement, Licensing Terms
  o November 29, Start-Up Growth: Business Plan, Customer Discovery, NSF iCorps; SBIR/STTR
• Week 16 – Unit 4: Start-Ups
  o December 4, Start-Up Funding: Early Stage Funding, Angel Investors
  o December 6, Start-Up Funding: Late Stage Funding, Venture Capital Investment and Exit
  o December 7, Dead Day
• FINAL EVENT:
  o December 11, Invention Triage Presentation to Inventor Panel