

# TE 450: Startups - Incorporation, Funding, Contracts, and Intellectual Property

## Technology Entrepreneur Center GRAINGER ENGINEERING



### Spring 2026

- **3 credit hours**
- **Fridays**
- **10am-12:30pm**
- **Three evening presentations 7-9:30pm**
- **410B1 Engineering Hall**

### Instructor

**Joe Barich**

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NB: A phone call is preferable to e-mail for complex matters.

Professor Barich is a licensed Intellectual Property (IP) attorney who specializes in developing powerful IP portfolios for clients and then using the IP portfolios to extract value from competitors. He has been involved in prosecuting more than 1200 patent applications and numerous trademark applications before the U.S. Patent and Trademark Office (PTO) and in countries around the world...

<https://tec.illinois.edu/about/directory/faculty/jbarich>

### Course Purpose

This course will explore how legal tools may be used in the construction and successful operation of your company to deliver the next great product to market. Topics covered in the class include issues with business formation, funding, intellectual property, non-disclosure agreements, contracts, and other corporate legal issues particularly impacting startups.

Please note that this class will not make you a lawyer. You are advised to seek legal representation if and when you or your company encounters a legal issue.

Additionally, this is an educational class, not legal representation. Consequently, nothing in the class materials, lectures, office hours, or any other materials or communication is to be taken as providing any legal advice whatsoever regarding any real-life situation. Further, although I am a practicing attorney, nothing in the materials, lectures, office hours, or any other materials or communications should be construed to create an attorney-client relationship of any sort.

### Learning Objectives

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

1. Describe how a business is formed and funded, including the difference among the various types of business entities, and funding arrangements,
2. Understand contracts, including formation, enforcement, and specific terms, and
3. Articulate intellectual property types, such as patents and trademarks.

### Required Reading

1. CoursePack – available at Illini Union Bookstore or online at <https://coursepacksetc.com/product-category/university-of-illinois/>
2. Class Materials/Links available at [www.joebarich.com](http://www.joebarich.com) or on Canvas

## Grading

20% - First Exam  
20% - Second Exam  
20% - Third/Final Exam  
20% - Class Projects  
20% - In-class Pop Quizzes (top 4 of 5)

## More Detail Regarding Grading

### In-Class Exams

Exams 1 and 2 will take place during classes. Exam 3 will be during finals week via Canvas/Zoom. Each Exam will primarily focus on material from the weeks immediately preceding the exam, but material from any prior point in the semester is fair game. Exams are composed of multiple choice and true/false answers. The Exams are closed book, closed notes. Please remember to bring a pencil - #2 or mechanical – to fill out your scantron sheet.

### Class Projects

Students will be divided into teams wherein each team will form a hypothetical startup company. Over the course of the semester, the hypothetical startup company will then be presented with three scenarios (an Incorporation scenario, a Contracts scenario, and an Intellectual Property scenario). The team will have to work together to develop a solution for each scenario and will then walk through their negotiation process and solution for the rest of the class in a 5-7 minute presentation (Powerpoint recommended) during the three evening presentation sessions at 7-9pm during the semester. Additionally, individual team members will be motivated to produce their best efforts because the Peer Evaluation portion of each student's class project grade will be determined by team member's confidential evaluation of each other's efforts. Of the 20% of the total course grade represented by the Class Project, the individual percentage break down is:

- 4% Incorporation and Funding Project (Team Grade – determined by me)
- 4% Contracts Project (Team Grade – determined by me)
- 4% Intellectual Property Project (Team Grade – determined by me)
- 8% Three Peer Evaluations (Individual to Student – determined by other Team Members)

### In-Class Pop Quizzes

Five (5) Pop Quizzes will take place during the semester. The dates for the Pop Quizzes will NOT be announced in advance. The Pop Quizzes will each take about 30 minutes and may take place at any point during the class – at the start of class, in the middle of class, or at the end of class.

The Pop Quizzes serve several purposes: 1) Typically only those who are actually attending class will be able to take the quiz - consequently, students will be incentivized to attend class; 2) a Pop Quiz may take place immediately at the start of class and no extra time will be given to students who arrive late - consequently, students will be incentivized to get to class on time; and 3) a Pop Quiz may involve material from the Required Reading for that day's class - consequently, students will be incentivized to do the Required Reading before class.

It will typically NOT be possible to take a Pop Quiz at a later date. Consequently, it is highly recommended that you do the reading, attend class, and get to class on time. Obviously, if you are incapacitated (jail, coma, sick with note from McKinley, for example) or otherwise involuntarily unable to attend class (death in the family, job interview, competing in a University gymnastics event or basketball game - not intramurals, etc.), then we can make other arrangements. However, having a big assignment due in another class, wanting to attend a fraternity event, cheer a sports competition, or leave early for a big weekend in Vegas are personal scheduling matters and not sufficient excuse for missing class or to clear an absence. The total scores of 4 of the 5 Pop Quizzes form your Quiz grade. However, if you do in fact take the 5th Quiz, then the points from that Quiz will count as extra credit, but you can't get more than 100% of the total Quiz points.

Example 1 - Took 4/5 Quizzes, got 85% one each one.

4 Quizzes \* 85 points = 340/400. You get 85% for your quiz score.

Example 2 - Took 5/5 Quizzes, got 85% on each one.

4 Quizzes \* 85 points = 340/400. Add in 85 points from 5th quiz, so total quiz points become 425/400, but cap at 400/400 for total quiz score of 100%.

Example 3 - Took 5/5 Quizzes, got 60% on each one.

4 Quizzes \* 60 points = 240/400. Add in 60 points from 5th quiz, so total quiz points become 300/400 for a total quiz score of 75%.

## Final Grades

Average the scores from each of the three Exams, the Class Project, and the Quiz score and compare it to the chart below. The chart indicates the minimum grade that you will receive.

A	100-95
A-	95-90
B+	90-85
B	85-80
B-	80-75
C+	75-70
C	70-65
C-	65-60
D	< 60
F	< 50

## Advice To Help You Get A Better Grade – Take Notes By Hand

Study after study has repeatedly confirmed that students that take notes by hand outperform students who take notes using a laptop or other electronic device. Here are just a few articles written about the studies:

- <http://www.npr.org/2016/04/17/474525392/attention-students-put-your-laptops-away>
- <http://www.scientificamerican.com/article/a-learning-secret-don-t-take-notes-with-a-laptop/>
- <https://www.psychologicalscience.org/news/releases/take-notes-by-hand-for-better-long-term-comprehension.html>
- [https://taxprof.typepad.com/taxprof\\_blog/2018/08/in-class-cellphone-and-laptop-use-lowers-exam-score.html](https://taxprof.typepad.com/taxprof_blog/2018/08/in-class-cellphone-and-laptop-use-lowers-exam-score.html)

Consequently, I highly recommend that you take notes by hand. In this regard, I note that the Coursepack has been specifically designed to allow you to take notes by hand so as to help you get the best possible grade – I recommend that you use it.

## Electronic Device Use Policy

### No Audio, Photographic, or Video Recording Allowed

No electronic audio, photographic, or video recording is allowed in class without my prior written permission. Any recording is a violation of the University Student Code and may subject you to discipline. There are at least three reasons for this: first, we want to provide an encouraging environment for student questions and discussion; second, we want students and the instructor to have control over the use of their respective images and expressions; and third, we will be reviewing Quiz and Exam questions in class and I don't want people to form a "question bank" for subsequent classes – which both impairs learning and is a Student Code violation.

### No Distracting Others

No texting, Instant Messaging, taking a call, or other communication should take place in class. If you receive an urgent communication that you absolutely have to respond to at that moment, please excuse yourself from class and go into the hall to respond.

Also, please don't text or message with other students in the class during class. It is both transparent to me and distracting to all involved and the rest of the class.

Finally, if you are using a laptop or other electronic device, please recall that everyone behind you can see what is on your laptop's screen. Please don't access sites that may be distracting to you or to the people behind you.

### Substance of the Class

Substantively, the class is divided into three sections, 1) Forming and Funding a Business, 2) Contracts, and 3) Intellectual Property. Each of the three sections will be the primary focus of one of the Exams and Projects described earlier in this syllabus. An overall outline of the course appears on the following pages.

## Schedule & Assignment Dates

Class	Date	Lecture/Discussion	Class Topic
1	Jan 23	<ul style="list-style-type: none"> <li>• See <a href="http://www.joebarich.com">www.joebarich.com</a></li> <li>• Coursepack Reading</li> </ul>	I. Basics and Forming a Business <ul style="list-style-type: none"> <li>A. Business Entities <ul style="list-style-type: none"> <li>1. Sole Proprietorship</li> <li>2. Partnership</li> <li>3. Corporation</li> <li>4. LLC</li> </ul> </li> </ul>
2	Jan 30	<ul style="list-style-type: none"> <li>• See <a href="http://www.joebarich.com">www.joebarich.com</a></li> <li>• Coursepack Reading</li> </ul>	<ul style="list-style-type: none"> <li>B. The practicalities of forming your corporation <ul style="list-style-type: none"> <li>1. Choosing a corporate name</li> <li>2. How a state corporation registry works</li> <li>3. Bylaws and Operating Agreement</li> <li>Examples and important clauses</li> </ul> </li> </ul>
3	Feb 6	<ul style="list-style-type: none"> <li>• See <a href="http://www.joebarich.com">www.joebarich.com</a></li> <li>• Coursepack Reading</li> <li>• Distribute Incorporation and Funding Project</li> </ul>	<ul style="list-style-type: none"> <li>C. Ownership Agreements <ul style="list-style-type: none"> <li>1. Get it in writing</li> <li>2. Founders ownership agreements</li> <li>3. Valuation and dilution – taking the long view</li> <li>4. Restrictions on transfer of stock</li> </ul> </li> </ul> <p>Questions about Incorporation and Funding Project</p>
4	Feb 13	<ul style="list-style-type: none"> <li>• See <a href="http://www.joebarich.com">www.joebarich.com</a></li> <li>• Coursepack Reading</li> </ul>	<ul style="list-style-type: none"> <li>D. Funding Arrangements <ul style="list-style-type: none"> <li>1. How startups get money</li> <li>2. Bootstrap</li> <li>3. Angel</li> <li>4. Bank loan</li> <li>5. SBA</li> <li>6. Grants</li> <li>7. VCs</li> <li>8. Tax implications</li> <li>9. Stock Options</li> </ul> </li> </ul> <p>Questions Before Exam #1</p> <p>Thursday, Feb 12<sup>th</sup> at 7-9:30pm in Room TBD -Team presentations on Incorporation Project</p>
5	Feb 20	<ul style="list-style-type: none"> <li>• See <a href="http://www.joebarich.com">www.joebarich.com</a></li> <li>• Coursepack Reading</li> </ul>	II. Contracts <ul style="list-style-type: none"> <li>A. Introduction to Contracts <ul style="list-style-type: none"> <li>1. What is a Contract</li> <li>2. Interpretation and Enforcement of Contracts</li> <li>3. Get It In Writing</li> </ul> </li> </ul> <p>EXAM #1 – Second Half of Class – Focus on Class 1-4 materials</p>

6	Feb 27	<ul style="list-style-type: none"> <li>• See <a href="http://www.joebarich.com">www.joebarich.com</a></li> <li>• Coursepack Reading</li> </ul>	<p>Review Exam #1</p> <p>B. Contract Formation</p> <ol style="list-style-type: none"> <li>1. Offer, Acceptance, and Consideration, etc.</li> <li>2. The negotiation process</li> <li>3. Practical contract terms and enforcement considerations</li> <li>4. “Reasonably promptly”, “best efforts”</li> </ol>
7	Mar 6	<ul style="list-style-type: none"> <li>• See <a href="http://www.joebarich.com">www.joebarich.com</a></li> <li>• Coursepack Reading</li> </ul>	<p>C. Specific Contracts and Terms</p> <ol style="list-style-type: none"> <li>1. Performance</li> <li>2. Modification of Agreement</li> <li>3. Damages</li> <li>4. Warranties</li> </ol>
8	Mar 13	<ul style="list-style-type: none"> <li>• See <a href="http://www.joebarich.com">www.joebarich.com</a></li> <li>• Coursepack Reading</li> <li>• Distribute Contracts Project</li> </ul>	<p>D. Specific Contracts and Terms</p> <ol style="list-style-type: none"> <li>1. Non-Disclosure Agreements</li> <li>2. Non-Competes</li> <li>3. Term Sheets</li> </ol> <p>Questions about Contracts Project</p>
	Mar 20	<ul style="list-style-type: none"> <li>• NO CLASS – SPRING BREAK</li> </ul>	
9	Mar 27	<ul style="list-style-type: none"> <li>• See <a href="http://www.joebarich.com">www.joebarich.com</a></li> <li>• Coursepack Reading</li> </ul>	<p>E. Specific Contracts and terms</p> <ol style="list-style-type: none"> <li>1. IP Assignments</li> <li>2. Joint Venture Agreements</li> </ol> <p>Questions Before Exam #2</p> <p>Thursday, March 26<sup>th</sup> at 7-9:30pm in Room TBD -Team presentations on Contracts Project</p>
10	Apr 3	<ul style="list-style-type: none"> <li>• See <a href="http://www.joebarich.com">www.joebarich.com</a></li> <li>• Coursepack Reading</li> </ul>	<p>III. Intellectual Property (IP)</p> <p>A. Into to IP</p> <ol style="list-style-type: none"> <li>1. Patents</li> <li>2. Copyrights</li> <li>3. Trademarks</li> <li>4. Trade Secrets</li> </ol> <p>EXAM #2 – Second Half of Class – Focus on Class 5-9 materials</p>
11	Apr 10	<ul style="list-style-type: none"> <li>• See <a href="http://www.joebarich.com">www.joebarich.com</a></li> <li>• Coursepack Reading</li> </ul>	<p>Review Exam #2</p> <p>B. Patents</p> <ol style="list-style-type: none"> <li>1. The Patenting Process</li> <li>2. Review of Sample Patents</li> <li>3. Recognizing Patentable Subject Matter</li> <li>4. Novelty</li> <li>5. Non-Obviousness</li> <li>6. 35 U.S.C. Sec. 112</li> </ol>
12	Apr 17	<ul style="list-style-type: none"> <li>• See <a href="http://www.joebarich.com">www.joebarich.com</a></li> <li>• Coursepack Reading</li> </ul>	<p>B. Patents</p> <ol style="list-style-type: none"> <li>7. Claim Types</li> <li>8. Novelty vs. Infringement Analysis</li> <li>9. Design Patents</li> </ol>

13	Apr 24	<ul style="list-style-type: none"> <li>• See <a href="http://www.joebarich.com">www.joebarich.com</a></li> <li>• Coursepack Reading</li> <li>• Distribute Intellectual Property Project</li> </ul>	<p>C. Trademarks</p> <ol style="list-style-type: none"> <li>1. What can be trademarked</li> <li>2. TM v. ®</li> <li>3. The Trademark Process</li> </ol> <p>Questions about Intellectual Property Project</p>
14	May 1	<ul style="list-style-type: none"> <li>• See <a href="http://www.joebarich.com">www.joebarich.com</a></li> <li>• Coursepack Reading</li> </ul>	<p>IV. Practical Startup Suggestions</p> <p>Questions Before Exam #3</p> <p>Thursday, April 30<sup>th</sup> at 7-9:30pm in Room TBD -Team presentations on Intellectual Property Project</p>
	May 8		<ul style="list-style-type: none"> <li>• Exam #3 – Focus on Class 10-14 materials</li> <li>• 1pm Via Canvas/Zoom</li> </ul>

## COVID

Following University policy, all students are required to engage in appropriate behavior to protect the health and safety of the community, including wearing a facial covering properly, maintaining social distance (at least 6 feet from others at all times), disinfecting the immediate seating area, and using hand sanitizer. Students are also required to follow the campus COVID 19 testing protocol.

Students who feel ill must not come to class. In addition, students who test positive for COVID 19 or have had an exposure that requires testing and/or quarantine must not attend class. The University will provide information to the instructor, in a manner that complies with privacy laws, about students in these latter categories. These students are judged to have excused absences for the class period and should contact the instructor via email about making up the work.

Students who fail to abide by these rules will first be asked to comply; if they refuse, they will be required to leave the classroom immediately. If a student is asked to leave the classroom, the non-compliant student will be judged to have an unexcused absence and reported to the Office for Student Conflict Resolution for disciplinary action. Accumulation of non-compliance complaints against a student may result in dismissal from the University.

## Emergency Response Recommendations

Emergency response recommendations can be found at the following website: <http://police.illinois.edu/emergency-preparedness/>. I encourage you to review this website and the campus building floor plans website within the first 10 days of class. <http://police.illinois.edu/emergency-preparedness/building-emergency-action-plans/>.

## Sexual Misconduct Reporting Obligation

The University of Illinois is committed to combating sexual misconduct. Faculty and staff members are required to report any instances of sexual misconduct to the University's Title IX Office. In turn, an individual with the Title IX Office will provide information about rights and options, including accommodations, support services, the campus disciplinary process, and law enforcement options.

A list of the designated University employees who, as counselors, confidential advisors, and medical professionals, do not have this reporting responsibility and can maintain confidentiality, can be found here: [wecare.illinois.edu/resources/students/#confidential](http://wecare.illinois.edu/resources/students/#confidential). Other information about resources and reporting is available here: [wecare.illinois.edu](http://wecare.illinois.edu).

## Academic Integrity

You are expected to uphold the highest ethical standards, to be honest, and to practice academic integrity. **This includes doing original work and citing sources**, including the work of other students. Please give special care to prepare high-quality submissions with proper grammar and spelling.

The University of Illinois at Urbana-Champaign Student Code should also be considered as a part of this syllabus. Students should pay particular attention to Article 1, Part 4: Academic Integrity. Read the Code at the following URL: <http://studentcode.illinois.edu/>. Academic dishonesty may result in a failing grade. Every student is expected to review and abide by the Academic Integrity Policy:

<https://studentcode.illinois.edu/article1/part4/1-401>. Ignorance is not an excuse for any academic dishonesty. It is your responsibility to read this policy to avoid any misunderstanding. Do not hesitate to ask the instructor if you are ever in doubt about what constitutes plagiarism, cheating, or any other breach of academic integrity.

## Religious Observances

Illinois law requires the University to reasonably accommodate its students' religious beliefs, observances, and practices in regard to admissions, class attendance, and the scheduling of examinations and work requirements. You should examine this syllabus at the beginning of the semester for potential conflicts between course deadlines and any of your religious observances. If a conflict exists, you should notify your instructor of the conflict and follow the procedure at <https://odos.illinois.edu/community-of-care/resources/students/religious-observances/> to request appropriate accommodations. This should be done in the first two weeks of classes.

## Disability-Related Accommodations

To obtain disability-related academic adjustments and/or auxiliary aids, students with disabilities must contact the course instructor and the Disability Resources and Educational Services (DRES) as soon as possible. To contact DRES, you may visit 1207 S. Oak St., Champaign, call 333-4603, email [disability@illinois.edu](mailto:disability@illinois.edu) or go to <https://www.disability.illinois.edu>. If you are concerned you have a disability-related condition that is impacting your academic progress, there are academic screening appointments available that can help diagnosis a previously undiagnosed disability. You may access these by visiting the DRES website and selecting "Request an Academic Screening" at the bottom of the page.

## Family Educational Rights and Privacy Act (FERPA)

Any student who has suppressed their directory information pursuant to Family Educational Rights and Privacy Act (FERPA) should self-identify to the instructor to ensure protection of the privacy of their attendance in this course. See <https://registrar.illinois.edu/academic-records/ferpa/> for more information on FERPA.

## Anti-Racism and Inclusivity Statement

The Grainger College of Engineering is committed to the creation of an anti-racist, inclusive community that welcomes diversity along a number of dimensions, including, but not limited to, race, ethnicity and national origins, gender and gender identity, sexuality, disability status, class, age, or religious beliefs.

The College recognizes that we are learning together in the midst of the Black Lives Matter movement, that Black, Hispanic, and Indigenous voices and contributions have largely either been excluded from, or not recognized in, science and engineering, and that both overt racism and micro-aggressions threaten the well-being of our students and our university community.

The effectiveness of this course is dependent upon each of us to create a safe and encouraging learning environment that allows for the open exchange of ideas while also ensuring equitable opportunities and respect for all of us. Everyone is expected to help establish and maintain an environment where students, staff, and faculty can contribute without fear of personal ridicule, or intolerant or offensive language. If you witness or experience racism, discrimination, micro-aggressions, or other offensive behavior, you are encouraged to bring this to the attention of the course director if you feel comfortable. You can also report these behaviors to the Bias Assessment and Response Team (BART) (<https://bart.illinois.edu/>). Based on your report, BART members will follow up and reach out to students to make sure they have the support they need to be healthy and safe. If the reported behavior also violates university policy, staff in the Office for Student Conflict Resolution may respond as well and will take appropriate action.