COLLEGE OF ENGINEERING
CENTER FOR ENTREPRENEURSHIP
UNIVERSITY OF MICHIGAN

ENTR 408/599.816: Introduction to Patent Law
Fall 2023 | 1 Credit Hour
Short Course, 1st 7 Wks
Tuesdays | 4:30-6:20P
Course meeting location is listed in Wolverine Access

CFE Faculty: Tiffany Fidler, Ph.D., J.D.
E-Mail: millert@umich.edu
In-person and/or Virtual Office Hours: Office hours are held virtually and by appointment over Zoom, please email me to schedule and propose at least 3 times that you are available to meet.

Course Overview

Inventors and entrepreneurs have four concerns related to patent law: protecting inventions during product development, determining invention patentability, avoiding infringement, and leveraging a patent as a business asset. This course addresses these concerns through the application of case law and business cases to an invention of the student's choice.

COURSE TOPICS include: 1. Function and Purpose of Patents; 2. Overview of Patent System; 3. Proper Subject Matter; 4. Patentability; 5. Establishing a Priority Date; 6. Infringement; 7. Inventorship and Ownership; 8. American Invents Act (AIA) and Patent Portfolio Strategy; 9. Licensing and Pitching.

Through readings including selections from case law, discussions, individual and/or group exercises, and the final project, this course will differentiate your educational experience leading you to be able to:

- Read, interpret, and evaluate a patent.
- Determine patentability to capture an invention.
- Conduct a patentability search and analysis.
- Explain how to prepare and file a provisional application .
- Explain the application of US patent laws, including the America Invents Act and legacy law.
- Determine and avoid infringement.
- Draft and interpret patent claims.
- Determine inventorship of an invention for purposes of a patent application.
- Explain how to license a technology, and pitch the intellectual property to your investors.

Entrepreneurship is about creating value for yourself and others. It involves applying learned professional skills along with interpersonal skills like creativity, persistence, and leadership. The CFE identifies 6 behaviors of Entrepreneurial Mindset: opportunity identification, innovation, experimentation, relationship building, risk management and perseverance. Beyond EM, the CFE values Maximum Positive Impact • Inclusion and Service • Accountability • Collaboration, Organization, Teamwork • Innovation and Continuous Improvement.
Welcome to this course!

Course Delivery

There will be in-person, synchronous (real-time) instruction on the scheduled meeting day/time listed for this course. This modality was published in U-M's course catalog when you enrolled. Higher ed guidelines: for every 1 credit hour anticipate 2-3 hrs of curricular engagement, including in-class lecture + in-class exercises + outside of class work.

>> Enrolled students are expected to attend in-person and engage in activities during class-time. Attendance may be taken. Please review your *entire* semester schedule: any unique overlap with the meeting pattern or deliverables of this class (religious observations, required course special exams, representing U-M in an official capacity, etc) must be presented to course faculty by U-M's Drop/Add date, so that reasonable accommodation can be discussed in advance. <<

If you have an emergency or become ill, please notify course faculty as soon as possible to determine if arrangements or accommodation can be made for an emergently missed class. (Consult with SSD for any ongoing accommodation needs).

Please note 1) class may feature group discourse and 2) class may be recorded via Lecture Capture; recordings may be linked in our course Canvas site.

*Students are prohibited from recording/distributing any class activity without written permission from the instructor, except as necessary as part of approved accommodations for students with disabilities. Any approved recordings may only be used for the student's own private use. If you do not wish to be recorded, please contact the instructor the first week of class (or as soon as you enroll in the course, whichever is latest) to discuss alternative arrangements, since ENTR lectures may be audio/video recorded and made available to other students in this course. Additional information regarding course recordings and privacy concerns can be found on the *UM ITS Recording and Privacy Concerns webpage* and *VP Public Affairs website/resources*.

Course Materials

Textbook: Jeffrey Schox, Not So Obvious: An Introduction to Patent Law and Strategy, Fourth Edition, ISBN: 978-1517273934

Course Materials and Announcements: Canvas
Additional supplemental reading may be assigned and will be announced.

Assessable Learning Outcomes

The course will provide students with the basis to understand and evaluate different forms of intellectual property, with a focus on patents. The student will be able to evaluate an invention in terms of patentability. The student will also be able to evaluate an invention in terms of existing patents, and be able to evaluate the idea for infringement and for design-around considerations.

The course will be based on participation as well as a final written report. The class will involve classroom activities and interaction based on assigned reading and lecture materials. Class participation may include brief questions or quizzes on Canvas to follow lecture.

**Note that there is no final examination for this course.

Evaluation and Grading

Assignment	Points or Percentage
Participation (including lecture quizzes on Canvas)	40%
Final Report	60%
TOTAL	**100%**

Regarding letter grades and GPA, note ENTR courses fall under the College of Engineering. CoE GPA information is found at: Grades and Scholastic Standing – Bulletin

Participation: Please read and be prepared to discuss the required material before each lecture as listed in the syllabus. Any lecture quizzes on Canvas will reflect the reading and the lecture materials, and are intended to be completed after lecture to indicate attendance and participation. **A good faith effort on a lecture quiz will be given full credit**.

Assignment: The Patentability Search and Opinion will include:

- Examining the invention and the underlying technologies;
- Conducting a patentability investigation of issued patents and published applications;
- Analyzing the patents found during the patentability investigation;
- Opining on the scope of patent protection and identifying possible issues; and
- Preparing a patentability opinion.

The final assignment will be due via electronic submission at the end of the Short Course as announced via Canvas. The assignment includes about 4- 6 pages of writing. Additional guidelines and details will be provided in class and on Canvas.

Note that most employees have legal obligations to their employer. If an assignment of a student might negatively affect an employer of the student, the student is strongly advised to seek approval of their assignment from their employer.

University of Michigan has certain rights to inventions created at the University "with more than incidental use of University resources." The assignments in this course involve the capture and evaluation of an invention, not the actual creation of the invention. Therefore, the assignments will not affect the ownership of an invention. In short, the act of writing and submitting an assignment by a student will not transfer any rights of the student to the University of Michigan.

The instructor hereby agrees to treat all assignments as confidential and proprietary, to use the assignment only for evaluation purposes, and to not disclose the subject matter of the assignment to any third party. Since the submission of the assignment by the student to the instructor is confidential, the submission will not be considered a publication or a
public use under the patent laws.

Course Outline (subject to situational change) Calendars | Office of the Registrar
FIRST 7 WEEKS CLASS
** Students, please review **all** of your course syllabi for any overlap this semester (religious observations, rep'ing U-M in an official capacity, special exams, etc). A student request of faculty for reasonable accommodation must be made by U-M's FA23 Drop/Add Deadline MON 18 September).

- **Week 1 – August 29**
  - Introduction to Intellectual Property
    - Housekeeping and course overview
    - What is IP? What is IP law?
    - Patent law – our concern
  - Overview of the Patent System
    - Authority
    - Different types of patent protection
    - Overview of the patent process
    - Sections of a Utility Patent
  - HOW TO: Read a patent
  - Assigned Reading: Not So Obvious – Chapters 1 and 2

- **Week 2 – September 5**
  - Proper Subject Matter
    - Subject Matter and Usefulness Requirement
  - Patentability
    - Novelty and First-to-Invent Requirements
    - Non-Obviousness Requirement
  - Assigned Reading: Not So Obvious – Chapters 3 and 4

- **Week 3 – September 12**
  - HOW TO: Capture an invention
  - HOW TO: Conduct a Patentability Search and Analysis
  - HOW TO: Prepare and File a Provisional Application

- **Week 4 – September 19**
  - Establishing a Priority Date
    - Publication, Public Use, and On-Sale Limitations
    - Enablement and Best Mode Requirement
  - Infringement
    - Infringement Analysis (Literal Infringement and Doctrine of Equivalents)
    - Defenses and Remedies
  - Assigned Reading: Not So Obvious – Chapters 5 and 6

- **Week 5 – September 26**
    - Patentability and Infringement Comparison and Activity

- **Week 6 – October 3**
    - Inventorship and Ownership
        - Inventorship Rules
        - Ownership, Assignment of Patent Rights
    - Claim drafting exercise
    - Assigned Reading: Not So Obvious – Chapter 7

- **Week 7 – October 10**
    - Overview of American Invents Act (AIA)
        - "First to file"
        - Post-grant review
    - Patent Portfolio Strategy and foreign filing considerations
    - Licensing and Pitching
    - HOW TO: License your technology, and pitch your IP to your investors
    - Course Wrap Up

- **October 11 – Final Report Due**

- **October 13 – Final deadline for quiz completion**

Policies

- U-M Statement of Student Rights and Responsibilities (oscr.umich.edu/statement)
- Services for Students with Disabilities (ssd.umich.edu
- CoE Academic Rules, Rights and Responsibilities – Bulletin (bulletin.engin.umich.edu/rules)
- An important component of ENTR project-based courses, real-world impact. *Student projects must comply with Federal, State, and local government guidelines,* in addition to *U-M policy.* To paraphrase CoE project guidelines, important skills developed may include:
  - Preparation of written reports and oral presentations to communicate ideas to a broad audience
  - Problem solving and the creative design process
  - Teamwork and team management
  - Decision-making skills
  - Professional responsibility
  - Societal impact and sustainability
- Enrolled students with F-1 or J-1 VISAs are to work with U-M's International Center advisors (internationalcenter.umich.edu/) and adhere to stated policies, particularly related to Curricular or Optional Practical Training (CPT/OPT) and project based courses. *(Projects are overseen/graded by faculty and may also involve mentoring by representatives from external organizations).*

University Attendance Policy

A student is expected to attend every class and laboratory for which he or she has registered per its listed modality in U-M Wolverine Access/Course Catalog. Course modality ensures financial aid/VISA requirements are met. Per U-M's Registrar's Office, courses are not "hybrid at will." **It is the student's responsibility to be aware of the attendance policy for this course (details below).** The instructor makes the final decision to excuse or not to excuse excessive absences. An instructor is entitled to give a failing grade (E) for excessive absences or an Unofficial Drop (UE) for a student who stops attending class at some point during the semester. U-M's fall semester spans 14 weeks of class sessions. Please note U-M's registration and withdrawal deadlines.

Technology Use During Class

Except for an emergency, cell phones should not be in sight or used in class. Please put them away before class begins. Laptops, tablets, and other electronic devices should be used only in conjunction with exercises directly related to class activity. We recognize that laptops can be a useful way to take notes or even to search out additional information. However, inappropriate use—defined as use that inhibits the learning experience for you or for others in the room—is prohibited.

Culture of Care

"Students may experience stressors that can impact both their academic experience and their personal well-being. These may include academic pressure and challenges associated with relationships, mental health, alcohol or other drugs, identities, finances, etc. If you are experiencing concerns, seeking help is a courageous thing to do for yourself and those who care about you." If the source of your stressors is academic, please contact me so that we can find solutions together. For personal concerns, U-M offers the following resources:

- Student Crisis Line (734) 936-3333
- Services for Students with Disabilities: ssd.umich.edu
- Counseling and Psychological Services: caps.umich.edu; (734) 764-8312
- Consultation, Assistance and Resources in Engineering: care.engin.umich.edu

- UHS Wellness Center, for informed well-being: uhs.umich.edu/wolverine-wellness
- Resources for Student Well-being: wellbeing.studentlife.umich.edu
- Maize & Blue Cupboard (grocery access): mbc.studentlife.umich.edu
- Sexual Assault Prevention and Awareness Center: sapac.umich.edu
- Reporting and Resources for Student Sexual Misconduct
- Office of Student Conflict Resolution: oscr.umich.edu
- CoE Office of Culture, Community and Equity: culture.engin.umich.edu

All College of Engineering, Center for Entrepreneurship (CFE ENTR) curricular experiences are committed to supporting U-M's policy of equal opportunity for all persons. The true asset of this course is the diversity all students bring to it. Please feel free to contact course faculty and/or the department/unit with any problems, concerns, or suggestions. Per CoE's Director of Engineering Research, Dr. C Finelli, "*Everyone is expected to contribute to a respectful, welcoming, and inclusive environment for every other member of the course.*"

Religious - Academic Conflicts provost.umich.edu/resources-policies/calendars/ and provost.umich.edu
"Although the University of Michigan, as an institution, does not observe religious holidays, it has long been the University's policy that every reasonable effort should be made to help students avoid negative academic consequences when their religious obligations conflict with academic requirements. Absence from classes or examinations for religious reasons does not relieve students from responsibility for any part of the course work required during the period of absence. Students who expect to miss classes, examinations, or other assignments as a consequence of their religious observance shall be provided with a reasonable alternative opportunity to complete such academic responsibilities. **It is the obligation of students to provide faculty with reasonable notice of the dates of religious holidays on which they will be absent. Such notice must be given by the drop/add deadline of the given term.** Should disagreement arise over any aspect of this policy, the parties involved should first contact the Department Chair…" (skifstad@umich.edu) and/or the Engineering Support Office - ATTN Dr. Angela Farrehi (afarrehi@umich.edu -or- engin-support@umich.edu). ENTR classes are part of the College of Engineering.

Students Representing the University in an Official Capacity Off-Campus
"There may be instances when students must miss class due to their commitment to officially represent the University. These students may be involved in the performing arts, scientific or artistic endeavors, or intercollegiate athletics. **It is the obligation of students to provide faculty with reasonable written notice of the dates on which they will be absent.** Absence from classes while representing the University does not relieve students from responsibility for any part of the course missed during the period of absence. Within reason, an instructor should provide appropriate arrangements to the student for missed work, providing such accommodations does not place unreasonable burden on the instructor or fundamentally alter the integrity of the course. When the absence coincides with an exam or other assignment due date, the options to make up that missed work may be limited and will be determined by the instructor within the boundaries of the course."

Academic Misconduct
"The University of Michigan community functions best when its members treat one another with honesty, fairness, respect, and trust. **The College of Engineering, which ENTR courses fall under, promotes the assumption of personal responsibility and integrity, and prohibits all forms of academic dishonesty and misconduct.** All cases of academic misconduct will be referred to the Office of the Assistant Dean for Undergraduate Education/Office of the Assistant Dean of Graduate and Professional Education. Being found responsible for academic misconduct will usually result in a grade sanction, in addition to any sanction from the

College. For more information, including examples of behaviors that are considered academic misconduct and potential sanctions, please see bulletin.engin.umich.edu/rules."

"Referencing and validating: you are taking full responsibility for AI-generated materials as if you had produced them yourself - ideas should be attributed and facts should be true. Any and all use of machines that emulate human capabilities (ChatGPT, Stable Diffusion, DALLE, etc.) to perform assignments or other works in the course should be disclosed (this includes all graded deliverables as well as other course works and activities). An explanatory appendix is required for each and every unique usage to describe in clear steps how such a machine was used, including which machine, iteration, editing, etc." (Note, genai.umich.edu/guidance/students).

ENTR courses are interdisciplinary, serve students University-wide, *and*, are recognized by the campus-wide Provost's initiative, U-M Minor in Entrepreneurship as well as CoE's Graduate Certificate in Innovation and Entrepreneurship.

Within U-M's College of Engineering, CFE ENTR electives are recognized as Intellectual Breadth >> Professional and creative development courses. ENTR courses offer a student the opportunity to build on non-engineering and non-technical courses to develop their creativity and professional capabilities. For some departments, ENTR is recognized as "flex tech" or a "technical elective."

U-M's CFE leads with Academic, Experiential, and Career-focused programming that provides:

- Facility with, and fluency in the Entrepreneurial Mindset
- Opportunity to practice and develop Entrepreneurial Skills
- Support for Entrepreneurial Activities
- Access to Entrepreneurial Career Opportunities

"Entrepreneurship Education is the Humanities of the 21st Century!" Dr. Thomas Zurbuchen, CFE's Co-Founder.

U-M CFE contact info: entrepreneurship@umich.edu || 734.763.1021

The CFE is open during normal business hours Monday - Friday.

The CFE is located on U-M's North Campus: 2281 Bonisteel Blvd, 3350 Duderstadt Center.

******************************** **Go BLUE!** *************************************