

# NEW COURSE PROPOSAL

GRADUATE Level I (Masters & Phd courses) \_\_\_\_\_ Level II (Phd courses) \_\_\_\_\_

UNDERGRADUATE X

SCHOOL, DEPARTMENT, COLLEGE: ME, CoE

DATE: 2/20/2019

1. Proposed Course Number: ME4803 (Verify with Registrar's Office)	2. Contact hours/credit structure: Lecture (1:1) <u>2</u> Studio (2:1) <u>2</u> Lab (3:1) <u>0</u> <b>Total hours</b> <u>3</u> Is this course repeatable for credit? <u>N</u>																							
3. Descriptive Title: <u>Emerging Technology Law</u>																								
4. Recommended Abbreviation for Transcript – (24 characters including spaces):																								
E M E R G I N G T E C H L A W																								
5. Catalog Description – (25 words or less) This course informs students of the legal structures that govern the development and introduction of emerging technology. Two main areas will be considered: product liability and intellectual property. The course will focus on the engineering components of litigation involving emerging technology. Topics in product liability include hazard analysis, human subject testing, child endangerment, medical products, and industry standards. Intellectual property topics will include patent infringement, patent invalidity, trade secrets, and the International Trade Commission. The role of engineering experts within the legal process will be a primary focus. Students will work both individually, and in teams, to conduct engineering analyses and construct legal arguments in response to various case studies involving accidents and accusations of intellectual property violations. Guest lecturers will consist of engineering expert witnesses, as well as practicing attorneys.																								
6. Basis: L/G <u>X</u> P/F <u>X</u> Audit <u>X</u>																								
7. Prerequisites: (For graduate level courses, Graduate Standing or Permission of Instructor is assumed) Prerequisites: ME2202 Dynamics of Rigid Bodies, ME 2110 Creative Decisions and Design Prerequisites with concurrency: Corequisites:																								
8. Has the course been taught as a special topic? No If <b>YES</b> , Total Enrollment:																								
9. Is this course equivalent to another course (graduate or undergraduate) taught at Ga. Tech? If yes, list course number(s):																								
10. For undergraduate courses, are you requesting that this course satisfy: Humanities _____ Social Science _____ Ethics <u>X</u>																								
11. Expected Mode of Presentation:	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 50%;"><i>MODE</i></th> <th style="width: 50%;"><i>% of COURSE</i></th> </tr> </thead> <tbody> <tr> <td rowspan="5">• Lecture</td> <td>Lecture</td> <td style="text-align: center;">50</td> </tr> <tr> <td>Discussion</td> <td></td> </tr> <tr> <td>Seminar</td> <td></td> </tr> <tr> <td>Demonstration</td> <td></td> </tr> <tr> <td>Other (Specify)</td> <td></td> </tr> <tr> <td rowspan="3">• Lab</td> <td>Supervised</td> <td></td> </tr> <tr> <td>Unsupervised</td> <td></td> </tr> <tr> <td>Mixed (supervised and unsupervised)</td> <td></td> </tr> <tr> <td>• Studio</td> <td>Studio</td> <td style="text-align: center;">50</td> </tr> </tbody> </table>	<i>MODE</i>	<i>% of COURSE</i>	• Lecture	Lecture	50	Discussion		Seminar		Demonstration		Other (Specify)		• Lab	Supervised		Unsupervised		Mixed (supervised and unsupervised)		• Studio	Studio	50
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13. Probable Instructor(s) – <i>Please mark with an asterisk any non-tenure track individuals.</i> William Singhose (ME), David Frakes (BME)																								
14. Purpose of Course: Relation to other courses, programs and curricula: This course stands on its own, however, it would be a complimentary follow up to ME2803. The course is also being considered for inclusion in the IP Certificate.																								
15. Required _____ Elective <u>X</u>																								
16. Submit a course syllabus																								
17. Can the class count toward degree requirements at Georgia Tech? <u>Y</u>																								
18. Is this class restricted to Free Elective only? <u>N</u>																								

# ME4803 Syllabus

Emerging Technology Law 2-2-0-3 (to be cross-listed with BME)

Lectures: Monday AND Wednesday TBD

Studio: Tuesday OR Thursday TBD

Textbook: TBD

## General Information

### Description

This course informs students of the legal structures that govern the development and introduction of emerging technology. Two main areas will be considered: product liability and intellectual property. The course will focus on the engineering components of litigation involving emerging technology. Topics in product liability include hazard analysis, human subject testing, child endangerment, medical products, and industry standards. Intellectual property topics will include patent infringement, patent invalidity, trade secrets, and the International Trade Commission. The role of engineering experts within the legal process will be a primary focus. Students will work both individually, and in teams, to conduct engineering analyses and construct legal arguments in response to various case studies involving accidents and accusations of intellectual property violations. Guest lecturers will consist of engineering expert witnesses, as well as practicing attorneys

### Pre- &/or Co-Requisites

For ME students, ME2202 Dynamics of Rigid Bodies, ME 2110 Creative Decisions and Design

For BME students, permission of instructor.

### Course Topics:

1. Structure of legal system
2. Relationship between engineering and law
3. Hazard analysis
4. Product liability – defects, failure to warn, medical products
5. Industry standards
6. Human testing
7. Geometry and kinematic of child endangerment
8. Calculating injury potential of products
9. Product liability litigation
10. Intellectual property
11. Types of IP litigation
12. Patent invalidity
13. Technical expert witnesses

### Course Objectives:

Objective 1: To provide students an understanding of how the legal system controls and limits engineering activities

Objective 2: To teach engineering methods that are used within the legal system

Objective 3: To teach students best engineering practices that satisfy legal requirements

Objective 4: To teach students proper methods for product testing

Objective 5: To teach students methods of establishing and continually protecting intellectual property (offensive IP strategies)

Objective 6: To prepare students to defend against IP litigation (defensive strategies)

Objective 7: To provide students an understanding of the career opportunities available to engineers within the legal community

### Course Requirements & Grading

Homework applying engineering methods to legal problems: 20%

Exams: 35%

Product liability project: 20%

Intellectual property project: 20%

Peer review 5%

### Course Format

The course will consist of two 1 hour lectures a 2-hour studio period each week. During the studio, students will put into practice the materials taught during lecture.

### Weekly Studios

Week #	Studio Deliverables
1	Block diagram and flowchart representations of legal system
2	Product dissection and hazard analysis
3	Review and summarize industry standards of analyzed product
4	Motions accusing/defending analyzed products
5	Development of human testing protocols
6	<b>Mock trials on product liability</b>
7	Block diagram representation of IP litigation
8	Product dissection and IP analysis
9	Claim construction & skill in the art
10	Prior art search
11	Motions attacking/defending patent validity
12	Patent infringement analysis
13	Judicial blunders (technical errors)
14	<b>Mock trials on intellectual property</b>

## Course Expectations & Guidelines

### Academic Integrity

Georgia Tech aims to cultivate a community based on trust, academic integrity, and honor. Students are expected to act according to the highest ethical standards. For information on Georgia Tech's Academic Honor Code, please visit <http://www.catalog.gatech.edu/policies/honor-code/> or <http://www.catalog.gatech.edu/rules/18/>.

Any student suspected of cheating or plagiarizing on a quiz, exam, or assignment will be reported to the Office of Student Integrity, who will investigate the incident and identify the appropriate penalty for violations.

### Accommodations for Students with Disabilities

If you are a student with learning needs that require special accommodations, contact the Office of Disability Services at (404)894-2563 or <http://disabilityservices.gatech.edu/>, as soon as possible, to make an appointment to discuss your special needs and to obtain an accommodation letter. Please also e-mail faculty as soon as possible in order to set up a time to discuss your learning needs.

### Absence from Class

Class attendance is not required, but is strongly recommended. In the case of medical illness or family emergencies, please work with the Office of VP for Student Life (Dean of Students) with documentation that supports your situation. If the illness or family emergency is deemed serious enough, the Dean's office will then contact me and your other instructors with recommendations on how to proceed. Students who are absent because of participation in a particular religious observance will be permitted to make up the work missed during their absence with no late penalty, provided the student informs me of the upcoming absence, in writing, within the first two weeks of class, and provided the student makes up the missed material within the established timeframe.

### Collaboration & Group Work

Some of the course project deliverables are to be submitted as a team. Students are encouraged to seek advice and guidance from people and learning materials outside of the class. Students will be required to submit peer-evaluations as individuals to score the contribution from themselves as well as their team members.

### Student-Faculty Expectations Agreement

At Georgia Tech, we believe that it is important to strive for an atmosphere of mutual respect, acknowledgement, and responsibility between faculty members and the student body. See <http://www.catalog.gatech.edu/rules/22/> for an articulation of some basic expectation that you can have of faculty and that faculty have of you. In the end, simple respect for knowledge, hard work, and cordial interactions will help build the environment we seek. Therefore, we encourage you to remain committed to the ideals of Georgia Tech while in this class.

### Campus Resources for Students

All students are welcome to visit the makerspaces on campus, including Flowers Invention Studio, IDC, MILL, etc. to get trained on the fabrication tools.

Visit this page [https://ctl.gatech.edu/sites/default/files/documents/campus\\_resources\\_students.pdf](https://ctl.gatech.edu/sites/default/files/documents/campus_resources_students.pdf) for a list of relevant campus resources available to Georgia Tech students.

**Mental Health & Wellness:** As a student you may experience a range of issues that can cause barriers to learning, such as strained relationships, increased anxiety, alcohol/drug problems, depression, difficulty concentrating and/or lack of motivation. These mental health concerns or stressful events may lead to diminished academic performance or reduce a student's ability to participate in daily activities. GT offers services to assist you with addressing these and other concerns you may be experiencing. If you or someone

you know is experiencing any of the issues noted above, consider utilizing the confidential mental health services available on campus. I encourage you to reach out to GT CARE ([www.care.gatech.edu](http://www.care.gatech.edu), 404-894-3498) or the Counseling Center ([www.counseling.gatech.edu](http://www.counseling.gatech.edu), 404-894-2575) for support. An on-campus counselor or after-hours services are available to assist you.