TO: The Engineering Faculty

FROM: The Faculty of the School of Mechanical Engineering

DATE: March 29, 2007

RE: New Course Approval ME 554 Intellectual Property

The Faculty of the School of Mechanical Engineering has approved the following course for a permanent course number. This action is now submitted to the Engineering Faculty with a recommendation for approval.

ME 554 Intellectual Property, Sem. 2. Class 1, cr. 1. Prerequisite: Physics 172 or equivalent.

> Survey of the law of patents, trade secrets, trademarks and copyrights with special emphasis on the process of defining inventions broadly and diversely. Basics of employment and confidentiality agreements as related to intellectual property. Obtaining, registering, licensing and litigation of intellectual property.

Reason: This course provides a foundation for students wanting to learn patent analysis. The course surveys the basic laws regarding patents, trade secrets, and copyrights. It is an excellent course for undergraduate, graduate and even non-engineering students (provided they have the prerequisite background), especially those interested in the Entrepreneurship Certificate Program.

The course has been offered five times with enrollments of 24 students in spring 2000, 26 students in spring 2001, 32 students in spring 2002, 28 spring 2003, and 14 spring 2004. Making this a permanent course offering will help make students more aware of this course.

Details of the course are provided in the attached course map and description.

James D. Jones
Associate Professor and Associate Head
School of Mechanical Engineering

ME 554
INTELLECTUAL PROPERTY

Course Outcomes

1. Understand and practice the basics of *defining inventions*.
2. Learn basics of *patents*, *trade secrets*, *trademarks*, *copyrights*.
3. Understand the basics of *employment* and *confidentiality agreements* as related to intellectual property.
4. Understand *licensing* and *litigation* of intellectual property.

Invention Definitions (5 wks)

1. Breadth of definitions
2. Diversity of definitions
3. Genus/Species
4. Markush Group

Typical Examples

- two handled leaf rake
- eyeglasses/ear protector
- reciprocating pedal bike
- wire door stop

Intellectual Property (Typical Concurrent Project) (4 wks)

- Design to avoid patent claim
- Improvement design encompassed by patent claim

Patents and Trade Secrets (3 wks)

1. Subject matter
2. Types of patents
   - Utility
   - Design
   - Plant
3. Term of patents
4. Standard of prior art
5. Obviousness
6. Licensing
7. Litigation

Trademarks and Copyrights (2.5 wks)

1. Types of trademarks
2. Quality Control issues
3. Copyright issues
4. Special computer program deposit requirements

Employment, Confidential Disclosure, and General IP issues (2.5 wks)

1. Covenants not to compete
2. Obligations to Assign to employer
3. Confidential Disclosures
4. New business scenarios

Licensing and Litigation (2 wks)

1. Exclusive/ nonexclusive
2. Valuation and royalty bases
3. Jurisdiction
4. Damages
5. Injunctive Relief

COURSE NUMBER: ME 554

COURSE TITLE: Intellectual Property

REQUIRED COURSE OR ELECTIVE COURSE: Elective

TERMS OFFERED: Spring

TEXTBOOK/REQUIRED MATERIAL: None – Detailed Powerpoint presentations available online and distributed in class.

PRE-REQUISITIE: PHYS 172 Modern Mechanics

COORDINATING FACULTY: J.C. McNett and K. Ramani

COURSE DESCRIPTION: Survey of the law of patents, trade secrets, trademarks and copyrights with special emphasis on the process of defining inventions broadly and diversely. Obtaining, registering, licensing and litigation of intellectual property.

COURSE OUTCOMES:

1. Understand and practice the basics of *defining inventions*.
2. Learn basics of *patents*, *trade secrets*, *trademarks*, *copyrights*.
3. Understand the basics of *employment* and *confidentiality agreements* as related to intellectual property.
4. Understand *licensing* and *litigation* of intellectual property.

ASSESSMENTS TOOLS:

1. Two graded homework assignments.
2. One project.
3. One graded in-class written exercise on claim scope.
4. One in-class exam on claim drafting.
5. One comprehensive final exam on intellectual property.

PROFESSIONAL COMPONENT:

1. Engineering Topics: Engineering Science – 0.5 credits (50%)
   Engineering Design -- 0.5 credits (50%)

RELATED ME PROGRAM OUTCOMES: N/A

NATURE OF DESIGN CONTENT: The project in this course requires the students to propose designs from the perspective of legal coverage of recently issued patents.

COMPUTER USAGE: The students are expected to use the computer to research patents available on the internet.

COURSE STRUCTURE/SCHEDULE:
1. Lecture – 1 days per week at 50 minutes.

PREPARED BY: K. Ramani

REVISION DATE: March 26, 2007