

COURSE: EECS 496. TITLE: Major Design Experience Professionalism. PREREQUISITE: Senior Standing.		REQUIRED
TEXTBOOK: Getting Started in the IT Business: Essays on the Critical Knowledge Needed for Success (T. Teorey et. al.), Wiley, 2005.		
REFERENCES: Project Management and Teamwork (Smith), McGraw-Hill, 2000; Engineering Ethics (Fleddermann), Prentice Hall, 1999.		
CATALOG DESCRIPTION: Design principles for multidisciplinary team projects, team strategies, entrepreneurial skills, ethics, social and environmental awareness, and life long learning. Each student must take (simultaneously) Tech Comm 496 (2 cr.) and one of the approved 400-level team project courses (4 cr.)		
COURSE OBJECTIVES: <ol style="list-style-type: none"> 1. To teach students an appreciation for quality assurance. 2. To teach effective teamwork strategies for multidisciplinary teams. 3. To teach students how to apply ethics, social and environmental awareness to computer system projects. 4. To teach the basics of copyright and patent laws and privacy issues, and entrepreneurial skills. 5. To make students aware of the need for life-long learning. 		TOPICS COVERED: <ol style="list-style-type: none"> 1. Quality assurance 2. Team strategies. 3. Ethics, social, and environmental responsibility. 4. Entrepreneurial skills. 5. Copyright laws, patents, privacy issues. 6. Life-long learning chances
COURSE OUTCOMES [Program Outcomes Addressed] <ol style="list-style-type: none"> 1. To be able to work effectively in teams to produce documents associated with large design projects. [4, 7, 11] 2. To develop an awareness of the ethical aspects of engineering work and to be aware of relevant professional codes of ethics. [6] 3. To understand how to go about starting a new business in engineering or IT, including developing and marketing a product. [10] 4. To understand the basic types of intellectual property, how to obtain them, and how long they can be held. [10] 5. To learn the importance of and how to achieve life-long learning in a technical discipline. [9] 6. To obtain more experience in oral and written communications. [7] 		
PROGRAM OUTCOMES ADDRESSED: 4,6,7,9,10,11 PROFESSIONAL COMPONENT ADDRESSED: 13 PREPARED BY: Toby Teorey on Dec. 9, 2004. AEY:1-21	CLASS/LABORATORY SCHEDULE: LECTURES: 1 per week @ 110 minutes. DISCUSSION: Included in lecture.	ASSESSMENT TOOLS (course outcomes addressed) <ol style="list-style-type: none"> 1. 3 essays on a technical topic, ethics case study, and a business plan [1-4] for teams. 2. Individual summaries of two technical seminars [5] 3. Presentation of essay using visual aids [1,6]

COURSE DESCRIPTION: University of Michigan, College of Engineering, ELECTRICAL ENGINEERING PROGRAM