

TO: The Engineering Faculty

FROM: The Faculty of the School of Mechanical Engineering

RE: ME 290 Course Title and Description Change

The Faculty of the School of Mechanical Engineering has approved the following course title and description change. This action is now submitted to the Engineering Faculty with a recommendation for approval.

From:

ME 290 Mechanical Engineering Professional Seminar

Sem. 1, 2, Class 1, cr. 1.

Prerequisite: Mechanical Engineering majors only.

Professional Seminar on contemporary issues in mechanical engineering including professionalism, ethics, and communications. Importance of acquiring "global competencies" and international experience is emphasized. Communications work cumulates in a graded portfolio. Interaction with student organizations, engineering professionals, and faculty. Overview of undergraduate curriculum facilitates development of individual Plans of Study.

To:

ME 290 Global Engineering Professional Seminar

Sem. 1, 2, Class 1, cr. 1.

Prerequisite: Mechanical Engineering majors only.

Forum on contemporary issues in the global profession of mechanical engineering. Professionalism and ethics. Interactions with engineering faculty and with professionals outside the University. Professional portfolio of communication assignments including understanding of cultural differences and collaborating across cultural boundaries. Individual plan of study. Academic career options including Global Competency Certificate.

Reason: The proposed new title and course description better reflects the course's new emphasis on the global engineering enterprise.

E. Daniel Hirleman, Head
School of Mechanical Engineering

ME 290
Global Engineering
Professional Seminar

Course Outcomes

1. Provide a solid foundation in *global engineering skills*. (P.O. 3a)
2. Introduce the *global engineering community* and encourage active involvement with *professional associations* such as ASME and SAE to develop teamwork and leadership skills. (P.O. 3b)
3. Explore the *ME Curriculum* and identify resources available for planning academic an program including global literacies (language and area studies) and for obtaining diverse *industrial experience appropriate for developing global competencies*. (P.O. 1a,2d)
4. Support the development of a strong *ethical framework for global professional workplace* as a responsible member of the global engineering community. (P.O. 2c, 3a, 3c)

Global Communication Skills

1. Professional presentation of engineering interests and credentials;
2. Competency with digital media for diverse and distant audiences.
3. Knowledge of cultural differences.
4. Strategies for collaborating across cultural boundaries.

Global Professional Engineering Opportunities

1. Industry speakers representing a range of ME global career paths.
2. Curricular resources for language area studies; options for diploma endorsement, "Global Competency."
3. Professional association representatives (e.g., ASME,

Global Professional and Ethical Issues

1. Code of Ethics of Engineers.
2. Ethical reasoning frameworks.
3. Ethical practices: case studies.
4. Guidelines for Professional Conduct.
5. Ethical approaches to cultural differences.

Capable Global Professionals

Skilled global communicators committed to professional and ethical leadership in the global engineering community. (P.O. 2a,2b,3a)

GLOBAL ENGINEERING PROFESSIONAL SEMINAR

LECTURE SCHEDULE AND COMMUNICATIONS ASSIGNMENTS

ME 290 Fall 2006

Week 1	August 24	E. D. Hirleman, Professor and Head, ME <i>Welcome to the School; Overview of Global Engineering</i> Dianne Atkinson, Seminar Instructor, Communications (ME109) <i>Overview of the Global Engineering Professional Seminar: Objectives, Procedures, and Grades</i> ■ Assignments: Read ME290 <i>Bulletin</i> every week; note resume draft needed for Week 2.
Week 2 <i>Study Abroad Fair, August 30</i>	August 31	Dianne Atkinson <i>Professional Communications for a Global Market: Interviews, Cover Letters, & Résumés</i> <input type="checkbox"/> Bring to class: résumé draft for in-class reviews; include international segment. <input type="checkbox"/> Due Friday, Sept. 1—video appointments via Computer Support Reservations. ■ Assignment: Draft transmittal letter and revise résumé draft.
Week 3	September 7	Jerry Matthews, Director, Office for Industrial Experience (ME 222A) <i>Gaining Industrial Experience for the Global Workplace</i>
Week 4 <i>PESC Roundtable, Sept. 12, 13</i>	September 14	Mike Logan, Systems Manager, Mechanical Engineering Technical Services <i>Server Basics and Security Issues: Getting Started with Internet Site Construction</i> Dianne Atkinson <i>Document Design Issues for the Internet: « Global » Publishing</i> <input type="checkbox"/> Bring to class: revised resume and first draft of transmittal letter for review. ■ Assignment: Initiate professional site: run “webinit” on ME “Tools.” ■ Assignment: Update and complete any needed revision of the POS.
Week 5	September 21	Guest Speaker, Weekend of ME Awards Convocation, Purdue Homecoming
Week 6	September 28	J. D. Jones, Associate Professor and Associate Head, ME <i>Overview of the Undergraduate Curriculum; Honors, Global Certificate Options.</i> <input type="checkbox"/> Due in class: (updated) POS will be collected for Academic Advisor review. ■ Assignment: Read ethics materials posted on MECOM.
Week 7	October 5	Dianne Atkinson New Media Issues: Designing for Diverse Users <input type="checkbox"/> Bring to class for review: 1) Tools site cover (printout of “index.shtml”) and 2) “site map” diagram of links and pages. ■ Assignment: Plan (use handout) and draft PowerPoint design of engineering project.
Week 8	October 12	Peter Meckl, Associate Professor, Communications Chair, ME <i>Professional Engineering Ethics</i> ■ Assignment: Review ethics resources, decision matrix, and cultural values map.
Week 9 <i>Note: Global Engineering Fair, Oct. 27</i>	October 19	Dianne Atkinson <i>Working with Value Differences: Intercultural Issues in “World Readability”</i> <input type="checkbox"/> Bring to class: Powerpoint exhibit, a 3-slide engineering project narrative. ■ Assignment: “Values map” VSM94; draft ethics analysis; continue Tools site work.
Week 10	October 26	Guest Speaker
Week 11 <i>Portfolios due Monday, November 6</i>	November 2	Dianne Atkinson <i>Revising and Integrating: Portfolio and WWW Site Completion</i> <input type="checkbox"/> Bring to class for review: Ethics analysis. <input type="checkbox"/> Monday of Week 12, November 6: Bring Portfolios to ME 109 before 5 p.m.
Week 12	November 9	Purdue Mechanical Engineering Research Opportunities Graduate Student Commentary and Mechanical Engineering Research Lab Tours
Week 13	November 16	Eckhard Groll, Director, ME International Programs Yating Chang, Assistant Director, COE Global Engineering Programs <i>International Opportunities for Mechanical Engineers; Study Abroad Panel; Purdue Student GEARE Chapter.</i>
Week 14	November 30	Guest Speaker
Week 15 <i>Last class</i>	December 7	Dan Hirleman, Jim Jones, Questions, Answers, and Acknowledgements Dianne Atkinson, Virtual Portfolio Highlights ■ Portfolios returned.