WASHINGTON STATE UNIVERSITY
VANCOUVER
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School of Engineering and Computer Science

Mech 101: Introduction to Mechanical Engineering

Catalog Data:	**Mech 101 Intro to Mechanical Engineering**; 2 credits Introduction to mechanical engineering profession; engineering problem solving; computers in engineering; design methods.
Class Schedule:	Two 50-minute lectures per week, for one semester.
Laboratory Schedule:	
Prerequisites by Course:	None
Prerequisites by Topic:	Knowledge of fundamental physics and mathematics.
Required Texts:	None
Course Coordinator:	Dr. Amir Jokar
Course Objectives:	In this course, the students: ▪ define mechanical engineering problems and propose solutions, ▪ participate in a team-work class project to design and build a prototype with constraints, ▪ write a technical report on the class-project and give a professional presentation at the end of class, ▪ learn about engineering ethics, continuing education, contemporary issues, global context, etc., ▪ learn about the importance of using computers and software in solving engineering problems.
Topics Covered:	▪ Introduction to mechanical engineering disciplines ▪ Mechanical engineering computer-based modeling ▪ Engineering problem solving ▪ Engineering ethics ▪ Design project competition ▪ Industrial tours
Lab Experiments and Activities:	None
Course Outcomes:	Students will be able to: A3. Apply the fundamentals of physics and mechanics in solving mechanical engineering problems. C4. Demonstrate teamwork to build a mechanical system based on the required specifications and constraints. F1. Recognize the ethical issues while practicing and solving the engineering problems. G2. Deliver a well-organized oral presentation, including good explanations when questioned, for the design projects at the end of semester. H1. Evaluate the impact of engineering solutions in a global context; in their design projects or in some specific mechanical engineering problems. I2. List the continuing education opportunities in mechanical engineering. J1. Evaluate the impact of contemporary issues, such as environmental, economic, emerging technologies, etc.

	K4. Use a mechanical engineering software for analyzing their design projects; conduction, convection and radiation heat transfer.		
Required or Elective Course:	Required		
Contribution to Professional Component:	Engineering Topics		
Relationship of Course to Program:	Meets: Educational Objectives 1, 2, 3, 4 Program Outcomes A, C, F, G, H, I, J, K		
Prepared by:	Amir Jokar	Date:	November 1, 2006
Approved by CAC:			