



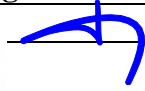
AL IMAM MOHAMMAD IBN SAUD ISLAMIC UNIVERSITY
COLLEGE OF ENGINEERING
Department of Mechanical Engineering

| Course Information | |
|-----------------------|--|
| Course Code and Name: | ME 433 Mechatronics |
| Credit Hours: | 3 (3 Lecture + 1 Tutorial) |
| Prerequisites: | CS 107 Computer Programming, GE 202 Dynamics, GE 205 Fundamental of Electrical Engineering |

| Course Description |
|--|
| Focus on the fundamentals of design-oriented mechanical, electrical and computer systems integration. Specifically, analog and digital electronic design, data acquisition, transducers, actuator technologies and control, design with microprocessors and embedded electronics, and application of control theory. |

| Textbook | | | |
|-----------|--|------------------|---------------------|
| Title | Introduction to Mechatronics and Measurement Systems | | |
| Authors | David G. Alciatore | | |
| Publisher | McGraw-Hill Education | Year and Edition | 2019, Fifth Edition |

| Course Contents |
|---|
| Electric Circuits and Components |
| Semiconductor Electronics |
| System Response |
| Analog Signal Processing Using Operational Amplifiers |
| Digital Circuits |
| Microcontroller Programming and Interfacing |
| Data Acquisition |
| Sensors |
| Actuators |
| Mechatronics System |

| | |
|--|---|
| Academic Coordinator Dr. Khalil Hajlaoui | Signature  |
|--|---|



Official Stamp