

TOTAL EXAMINATION PROGRAM
PEO Syllabus of Examinations, 2016 Edition

MECHATRONICS ENGINEERING

INTRODUCTION

A full set of Mechatronics Engineering examinations consists of the following, three-hour examination papers and an engineering report. Candidates will be assigned examinations based on an assessment of their academic background. Examinations from discipline syllabi other than those specific to the candidates' discipline may be assigned at the discretion of PEO's Academic Requirement Committee.

BASIC STUDIES EXAMINATIONS

04-BS-1	Mathematics
04-BS-2	Probability and Statistics
04-BS-3	Statics and Dynamics
04-BS-4	Electric Circuits and Power
04-BS-5	Advanced Mathematics
04-BS-6	Mechanics of Materials
04-BS-7	Mechanics of Fluids
04-BS-8	Digital Logic Circuits
04-BS-9	Basic Electromagnetics
04-BS-10	Thermodynamics
04-BS-11	Properties of Materials
04-BS-12	Organic Chemistry
04-BS-13	Biology
04-BS-14	Geology
04-BS-15	Engineering Graphics and Design Process
04-BS-16	Discrete Mathematics

PROFESSIONAL EXAMS – SPECIFIC TO MECHATRONICS ENGINEERING

GROUP A

16-Mex-A1	System Analysis and Control
16-Mex-A2	Circuits and Electronics
16-Mex-A3	Digital Systems and Computers
16-Mex-A4	Applied Thermodynamics and Heat Transfer
16-Mex-A5	Kinematics and Dynamics of Machines
16-Mex-A6	Systems Analysis and Simulation
16-Mex-A7	Instrumentation, Measurements, Sensors and Actuators

GROUP B

16-Mex-B1	Signals and Communications
16-Mex-B2	Digital Signal Processing
16-Mex-B3	Advanced Control Systems
16-Mex-B4	Acoustics and Noise Control
16-Mex-B5	Robot Mechanics
16-Mex-B6	Power Electronics and Drives
16-Mex-B7	Design and Manufacture of Machine Elements
16-Mex-B8	Product Design and Development
16-Mex-B9	Integrated Manufacturing Systems
16-Mex-B10	Power Systems and Machines

COMPLEMENTARY STUDIES

11-CS-1	Engineering Economics
11-CS-2	Engineering in Society – Health & Safety
11-CS-3	Sustainability, Engineering and the Environment
11-CS-4	Engineering Management

3.2	Engineering Report
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