

TOTAL EXAMINATION PROGRAM
PEO Syllabus of Examinations, 2019 Edition

SOFTWARE ENGINEERING

INTRODUCTION

A full set of Software Engineering examinations consists of the following, three-hour examination papers. 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-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-10	Thermodynamics
04-BS-11	Properties of Materials
04-BS-12	Organic Chemistry
04-BS-13	Biology
04-BS-14	Geology
04-BS-16	Discrete Mathematics

PROFESSIONAL EXAMS – SPECIFIC TO SOFTWARE ENGINEERING

GROUP A

19-Soft-A1	Algorithms & Data Structures
19-Soft-A2	Computing Architecture and Operating Systems
19-Soft-A3	Software Design
19-Soft-A4	Real Time Systems
19-Soft-A5	Requirements and Specifications
19-Soft-A6	Software Quality Assurance
19-Soft-A7	Software Development Process

GROUP B

19-Soft-B1	Advanced Software Design
19-Soft-B2	User interface
19-Soft-B3	Security
19-Soft-B4	Dependable Systems
19-Soft-B5	Software Modeling & Verification (Formal Methods)
19-Soft-B6	Software Project Management
19-Soft-B7	Reverse Engineering, Maintenance & Evolution
19-Soft-B8	Distributed Systems
19-Soft-B9	Parallel Computing
19-Soft-B10	Networking and Communications
19-Soft-B11	Process Control Systems
19-Soft-B12	Engineering Computation: Numerics
19-Soft-B13	Performance Analysis & Simulation
19-Soft-B14	Safety Critical Systems
19-Soft-B15	Artificial Intelligence
19-Soft-B17	Programming Languages, Semantics and Implementation
19-Soft-B18	Data Visualization

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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