A full set of Nuclear 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-15 Engineering Graphics and Design Process
- 04-BS-16 Discrete Mathematics

**PROFESSIONAL EXAMS – SPECIFIC TO NUCLEAR ENGINEERING**

**GROUP A**

- 08-Nuc-A1 Introduction to Nuclear Physics and Nuclear Engineering
- 08-Nuc-A2 Nuclear Reactor Analysis
- 08-Nuc-A3 Nuclear Reactor Design
- 08-Nuc-A4 Reactor Safety and FMEA (Failure Mode and Effects Analysis)
- 08-Nuc-A5 Nuclear Detection and Instrumentation
- 08-Nuc-A6 Nuclear Power Plant Systems and Operation
- 08-Nuc-A7 Process Dynamics and Control

**GROUP B**

- 08-Nuc-B1 Nuclear Shielding
- 08-Nuc-B2 Radiation Protection
- 08-Nuc-B3 Fuel Management / Fuel Design
- 08-Nuc-B4 Waste Management
- 08-Nuc-B5 Nuclear Plant Chemistry
- 08-Nuc-B6 Nuclear Materials
- 08-Nuc-B7 Reactor Control
- 08-Nuc-B8 Applied Thermodynamics and Heat Transfer
- 08-Nuc-B9 Energy Conversion and Power Generation
- 08-Nuc-B10 Advanced Fluid Mechanics
- 08-Nuc-B11 Power Systems and Machines
- 08-Nuc-B12 Power Systems Engineering

**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