# **TOTAL EXAMINATION PROGRAM PEO Syllabus of Examinations, 2004 Edition**

## AGRICULTURAL ENGINEERING

#### INTRODUCTION

A full set of Agricultural 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-6	Mechanics of Materials
04-BS-7	Mechanics of Fluids
04-BS-10	Thermodynamics
04-BS-11	Properties of Materials
04-BS-12	Organic Chemistry
04-BS-13	Biology
04-BS-15	<b>Engineering Graphics and Design Process</b>

#### PROFESSIONAL EXAMS - SPECIFIC TO AGRICULTURAL ENGINEERING

### **GROUP A**

04-Agric-A1 04-Agric-A2 04-Agric-A3 04-Agric-A4 04-Agric-A5 04-Agric-A6 04-Agric-A7	Applied Plant, Animal or Human Physiology Soil Physics and Mechanics Heat Engineering Fluid Flow Principles of Instrumentation Physical Properties of Biological Materials and Food Products Chemistry and Microbiology of Foods
GROUP B	
04-Agric-B1	Systems Engineering and Materials Handling
04-Agric-B2	Structural Design for Agricultural, Biosystems, and Food Industries
04-Agric-B3	Machine Design for Agricultural, Biosystems, and Food Industries
04-Agric-B4	Machinery Analysis for Agricultural, Biosystems, and Food Industries
04-Agric-B5	Power Units for Agricultural, Biosystems, and Food Industries
04-Agric-B6	Irrigation, Drainage, and Erosion Control
04-Agric-B7	Principles of Hydrology
04-Agric-B8	Food Process Engineering (Part 1)
04-Agric-B9	Food Process Engineering (Part 2)
04-Agric-B10	Biochemical Engineering
04-Agric-B11	Principles of Waste Management
04-Agric-B12	Principles of Biological Waste Treatment

Design of Buildings for Agricultural, Biosystems, and Food Industries

#### **COMPLEMENTARY STUDIES**

Control and Monitoring
Aquacultural Engineering

04-Agric-B13

04-Agric-B14 04-Agric-B15

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