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| AE 5102 | Thermodynamics | 2 | Compulsory |
| AE 5104 | Engineering Drawing | 2 | Compulsory |
| AE 5106 | Physical Properties of Agricultural Products | 2 | Compulsory |
| AE 5109 | Soil Mechanics | 2 | Compulsory |
| AE 5111 | Engineering Mechanics | 2 | Compulsory |
| AE 5112 | Farm Mechanization  | 2 | Compulsory  |
| AE 5117 | Numerical Analysis in Agricultural Engineering Applications | 2 | Compulsory |
| AE 5107 | Water Quality for Agriculture and Environment | 2 | Elective |
| AE 5113 | Principles of Farm Machinery  | 2 | Elective  |
| AE 5114 | Agricultural Structures and Environment | 2 | Elective |
| AE 5115 | Electronics and Instrumentation in Agriculture | 2 | Elective |
| AE 5116 | Farm Machinery Testing and Evaluation | 1 | Elective |
| AE 5118 | Principles of Post-harvest Biology and Technology | 2 | Elective |
| ST 5106 | Computer Programming | 2 | Elective |
| Second Semester |
| AE 5203 | Food Process Engineering | 2 | Compulsory |
| AE 5204 | Power and Energy for Agriculture | 2 | Compulsory |
| AE 5206 | Fluid Mechanics | 2 | Compulsory |
| AE 5202 | Water Application Systems | 2 | Elective |
| AE 5205 | Ecologically Sustainable Industrial Development | 1 | Elective  |
| AE 5207  | Applied Heat Transfer | 2 | Elective |
| AE 5209 | GIS for Natural Resources Management | 2 | Elective |
| AE 5210 | Health, Sanitation and Wastewater Management | 2 | Elective |
| AE 5211 | Hydraulics of Erosion and Sediment Transport | 2 | Elective  |
| AE 5213 | Bioreactor and Bio-Environment Design and Control Systems | 2 | Elective  |
| AE 5214 | Electrical Power and Machines | 2 | Elective |
| Second Year First Semester |
| AE 5157 | Solid Waste Management  | 2 | Compulsory |
| AE 5198 | Directed Study and Seminar | 2 | Compulsory |
| AE 5152 | Environmental Impact Assessment  | 2 | Elective |
| AE 5153 | Principles of Ergonomics in Agriculture  | 2 | Elective  |
| AE 5154 | Application of Remote Sensing in Agriculture  | 2 | Elective |
| AE 5156 | Environment and Industry  | 3 | Elective |
| AE 5158 | Organic Produce Certification and Marketing  | 1 | Elective |
| AE 5159 | Grading Packaging and Transportation of Fruits and Vegetables  | 2 | Elective |
| AE 5160 | Advanced Power and Machinery  | 2 | Elective  |
| AE 5161 | Solar Energy Applications in Agriculture  | 2 | Elective |
| AE 5162 | Tillage Engineering  | 2 | Elective |
| AE 5163 | Analysis of Agricultural Systems  | 2 | Elective |
| AE 5164 | Combustion of Biomass  | 2 | Elective |
| AE 5165 | Natural Fibre Technology  | 2 | Elective  |
| AE 5167 | Process Control and Automation | 2 | Elective |
| AE 6101 | Advanced Irrigation Water Management  | 2 | Elective |
| AE 6102 | Advanced GIS and Geo-informatics  | 2 | Elective |