

**Curriculum Session 2017-18**

School Name : School of Engineering & Information Technology

Programme Name : B.Tech.

Branch : Agricultural Engineering

| SEMESTER : I                |                   |  |   |   |   |           |
|-----------------------------|-------------------|--|---|---|---|-----------|
| S.NO.                       | COURSE CODE       | COURSE NAME  | L | T | P | C         |
| 1                           | MAT 101           | Mathematics-I  | 3 | 1 | - | 4         |
| 2                           | PHY 101/CHY 101   | Modern Physics/General Chemistry   | 3 | 1 | - | 4         |
| 3                           | EEE 101/ ECE 101  | Basic Electrical Engineering/Basic Electronics Engineering                         | 3 | - | - | 3         |
| 4                           | CSE 101/ MEE 101  | Computer System & Programming in C/Engineering Mechanics                           | 3 | - | - | 3         |
| 5                           | EVS 101/ PSY 101  | Environmental Science/Sociology and Psychology                                     | 3 | - | - | 3         |
| 6                           | CSE 151/ MEE 151  | Computer System & Programming Lab/ Engineering Mechanics Lab                       | - | - | 2 | 1         |
| 7                           | EEE 151 / ECE 151 | Electrical Engineering Lab/ Electronics Engineering Lab                            | - | - | 2 | 1         |
| 8                           | MEE 153 / MEE 155 | Computer Aided Engineering Graphics Lab/ Product Realization through Manufacturing | - | - | 4 | 2         |
| 9                           | PHY 151 / CHY 151 | Modern Physics Lab/ General Chemistry Lab  | - | - | 2 | 1         |
| 10                          | BLL 151           | Life Skill (Communication Skill)   | - | - | 4 | 2         |
| <b>TOTAL NO. OF CREDITS</b> |                   |  |   |   |   | <b>24</b> |
| SEMESTER : II               |                   |  |   |   |   |           |
| S.NO.                       | COURSE CODE       | COURSE NAME  | L | T | P | C         |
| 1                           | MAT 102           | Mathematics-II   | 3 | 1 | - | 4         |
| 2                           | PHY 101/CHY 101   | Modern Physics/General Chemistry   | 3 | 1 | - | 4         |
| 3                           | EEE 101/ ECE 101  | Basic Electrical Engineering/Basic Electronics Engineering                         | 3 | - | - | 3         |
| 4                           | CSE 101/ MEE 101  | Computer System & Programming in C/Engineering Mechanics                           | 3 | - | - | 3         |
| 5                           | EVS 101/ PSY 101  | Environmental Science/Sociology and Psychology                                     | 3 | - | - | 3         |
| 6                           | CSE 151/ MEE 151  | Computer System & Programming Lab/ Engineering Mechanics Lab                       | - | - | 2 | 1         |
| 7                           | EEE 151 / ECE 151 | Electrical Engineering Lab/ Electronics Engineering Lab                            | - | - | 2 | 1         |
| 8                           | MEE 153 / MEE 155 | Computer Aided Engineering Graphics Lab/ Product Realization through Manufacturing | - | - | 4 | 2         |
| 9                           | PHY 151 / CHY 151 | Modern Physics Lab/ General Chemistry Lab  | - | - | 2 | 1         |
| 10                          | BLL 152           | Life Skill (Human Behaviour)   | - | - | 4 | 2         |
| <b>TOTAL NO. OF CREDITS</b> |                   |  |   |   |   | <b>24</b> |
| III SEMESTER                |                   |  |   |   |   |           |
| Sl. No.                     | Course Code       | Course Title   | L | T | P | C         |
| 1                           | MAT 201           | Mathematics III  | 3 | 1 | 0 | 4         |
| 2                           | MEE 201           | Fluid Mechanics & Machinery  | 3 | 0 | 0 | 3         |
| 3                           | AGR 201           | Farm Machinery   | 3 | 0 | 0 | 3         |
| 4                           | MEE 205           | Engineering Thermodynamics   | 3 | 0 | 0 | 3         |
| 5                           | CLE 207           | Strength of Material   | 3 | 0 | 0 | 3         |
| 6                           | CLE 203           | Surveying  | 3 | 0 | 0 | 3         |
| 7                           | MEE 251           | Fluid Mechanics & Machinery Lab  | 0 | 0 | 2 | 1         |
| 8                           | CLE 251           | Surveying Lab  | 0 | 0 | 2 | 1         |
| 9                           | MEE 253           | Engineering Thermodynamics Lab   | 0 | 0 | 2 | 1         |
| 10                          | BLL 251           | Life Skill (Technical Communication)   | 0 | 0 | 4 | 2         |
| <b>Total credits</b>        |                   |  |   |   |   | <b>24</b> |

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| IV SEMESTER   |             |   |   |   |   |           |
|---------------|-------------|---|---|---|---|-----------|
| Sl. No.       | Course Code | Course Title  | L | T | P | C         |
| 1             | MAT 202     | Statistical and Numerical Methods                       | 3 | 0 | 2 | 4         |
| 2             | AGR 202     | Irrigation & Drainage Engg                              | 3 | 0 | 0 | 3         |
| 3             | MEE 208     | Theory of Machines                                      | 3 | 0 | 0 | 3         |
| 4             | MEE 209     | Instrumentation and Control Engineering                 | 3 | 0 | 0 | 3         |
| 5             | CLE 202     | Soil Mechanics  | 3 | 0 | 0 | 3         |
| 6             | MEE 206     | Thermal Engineering ( Refrigeration & Air Conditioning) | 3 | 0 | 0 | 3         |
| 7             | AGR 252     | Irrigation & Drainage Engg Lab                          | 0 | 0 | 2 | 1         |
| 8             | MEE 258     | TOM Lab   | 0 | 0 | 2 | 1         |
| 9             | CLE 256     | Soil Mechanics Lab                                      |   |   |   |           |
| 10            | MEE 257     | Instrumentation and Control Engineering Lab             | 0 | 0 | 2 | 1         |
| 11            | BLL 252     | Life Skill (Soft Skill)                                 | 0 | 0 | 4 | 2         |
| Total credits |             |   |   |   |   | <b>24</b> |
| V SEMESTER    |             |   |   |   |   |           |
| Sl. No.       | Course Code | Course Title  | L | T | P | C         |
| 1             | MEE 301     | Machine Design  | 3 | 0 | 0 | 3         |
| 2             | AGR 301     | Soil & Water Conservation                               | 3 | 0 | 0 | 3         |
| 3             | AGR 303     | Farm power  | 3 | 0 | 0 | 3         |
| 4             |             | Open Elective -I  | 0 | 0 | 4 | 2         |
| 5             |             | Programme Elective- I                                   | 3 | 0 | 0 | 3         |
| 6             | MEE 307     | Heat & Mass Transfer                                    | 3 | 0 | 0 | 3         |
| 7             | AGR 351     | Soil & Water Conservation Lab                           | 0 | 0 | 2 | 1         |
| 8             | MEE 355     | Heat & Mass Transfer Lab                                | 0 | 0 | 2 | 1         |
| 9             | AGR 353     | Farm power Lab  | 0 | 0 | 2 | 1         |
| 10            | BLL 351     | Life Skill (Aptitude Building)                          | 0 | 0 | 4 | 2         |
| 11            | AGR 355     | Technical Proficiency in Agricultural Engineering I     | 0 | 0 | 2 | 1         |
| Total credits |             |   |   |   |   | <b>23</b> |
| VI SEMESTER   |             |   |   |   |   |           |
| Sl. No.       | Course Code | Course Title  | L | T | P | C         |
| 1             | AGR 302     | Dairy & Food Engineering                                | 3 | 0 | 0 | 3         |
| 2             | AGR 304     | Tractor System Control                                  | 3 | 0 | 0 | 3         |
| 3             | MEE 302     | Industrial Management and Entrepreneurship              | 3 | 0 | 0 | 3         |
| 4             |             | Programme Elective- II                                  | 3 | 0 | 0 | 3         |
| 5             |             | Programme Elective- III                                 | 3 | 0 | 0 | 3         |
| 6             |             | Open Elective -II                                       | 3 | 0 | 0 | 3         |
| 7             | AGR 354     | Tractor System Control Lab                              | 0 | 0 | 2 | 1         |
| 8             | AGR 352     | Dairy & Food Engineering Lab                            | 0 | 0 | 2 | 1         |
| 9             | AGR 356     | Technical Proficiency in Agricultural Engineering II    | 0 | 0 | 2 | 1         |
| 10            | CAC 300     | Campus To Corporate                                     | 0 | 0 | 4 | 2         |
| Total credits |             |   |   |   |   | <b>23</b> |

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| VII SEMESTER           |             |  |   |   |   |    |
|------------------------|-------------|--|---|---|---|----|
| Sl. No.                | Course Code | Course Title   | L | T | P | C  |
| 1                      | AGR 401     | Soil & water conservation structure                    | 3 | 0 | 0 | 3  |
| 2                      | AGR 403     | Ground water & well pump Engg                          | 3 | 0 | 0 | 3  |
| 3                      | AGR 405     | Engineering Hydrology                                  | 2 | 0 | 0 | 2  |
| 4                      |             | PROGRAMME ELECTIVE -IV                                 | 3 | 0 | 0 | 3  |
| 5                      |             | PROGRAMME ELECTIVE -V                                  | 3 | 0 | 0 | 3  |
| 6                      | AGR 407     | Drying and Storage Engineering                         | 3 | 0 | 0 | 3  |
| 7                      | AGR 451     | Soil & water conservation structure Lab                | 0 | 0 | 2 | 1  |
| 8                      | AGR 453     | Technical proficiency in Agricultural Engg III         | 0 | 0 | 2 | 1  |
| 9                      | AGR 400     | Industrial Internship                                  | 0 | 0 | 0 | 2  |
| Total credits          |             |  |   |   |   | 21 |
| VIII SEMESTER          |             |  |   |   |   |    |
| Sl. No.                | Course Code | Course Title   | L | T | P | C  |
| 1                      | AGR 402     | Project Work   | - | - | - | 20 |
| Total credits          |             |  |   |   |   | 20 |
| OPEN ELECTIVE-I        |             |  |   |   |   |    |
| Sl. No.                | Course Code | Course Title   | L | T | P | C  |
| 1                      | AGR 305     | Remote Sensing & GIS                                   | 2 | 0 | 0 | 2  |
| 2                      | AGR 307     | Waste & by Product Utilization                         | 2 | 0 | 0 | 2  |
| 3                      | AGR 309     | Precision Farming Techniques for Protected Cultivation | 2 | 0 | 0 | 2  |
| OPEN ELECTIVE-II       |             |  |   |   |   |    |
| Sl. No.                | Course Code | Course Title   | L | T | P | C  |
| 1                      | CSE 312     | Cloud Computing  | 3 | 0 | 0 | 3  |
| 2                      | CSE 310     | Internet of Things                                     | 3 | 0 | 0 | 3  |
| 3                      | ECE 306     | Robotics and Automation                                | 3 | 0 | 0 | 3  |
| 4                      | ECE 308     | Renewable Energy Resources                             | 3 | 0 | 0 | 3  |
| PROGRAMME ELECTIVE - I |             |  |   |   |   |    |
| Sl. No.                | Course Code | Course Title   | L | T | P | C  |
| 1                      | AGR 311     | Watershed Planning & Management                        | 3 | 0 | 0 | 3  |
| 2                      | AGR 313     | Land Development Machinery                             | 3 | 0 | 0 | 3  |
| 3                      | AGR 315     | Minor Irrigation and Command area Development          | 3 | 0 | 0 | 3  |

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| PROGRAMME ELECTIVE-II  |             |  | 3 | 0 | 0 | 3 |
|------------------------|-------------|--|---|---|---|---|
| Sl. No.                | Course Code | Course Title   | L | T | P | C |
| 1                      | AGR 306     | Seed Process Engg  | 3 | 0 | 0 | 3 |
| 2                      | AGR 308     | Micro Irrigation System Design   | 3 | 0 | 0 | 3 |
| 3                      | AGR 310     | Design of Agricultural Machinery   | 3 | 0 | 0 | 3 |
| PROGRAMME ELECTIVE-III |             |  | 3 | 0 | 0 | 3 |
| Sl. No.                | Course Code | Course Title   | L | T | P | C |
| 1                      | AGR 312     | Food Packaging Technology  | 3 | 0 | 0 | 3 |
| 2                      | AGR 314     | Ground water & well pump Engg  | 3 | 0 | 0 | 3 |
| 3                      | AGR 316     | Testing Agricultural Machinery & Tractor                                 | 3 | 0 | 0 | 3 |
| PROGRAMME ELECTIVE-IV  |             |  |   |   |   |   |
| Sl. No.                | Course Code | Course Title   | L | T | P | C |
| 1                      | AGR 409     | Wasteland Development  | 3 | 0 | 0 | 3 |
| 2                      | AGR 411     | Agricultural Structure & Environmental Control                           | 3 | 0 | 0 | 3 |
| 3                      | AGR 413     | Post- Harvest Engineering of Horticultural, Medicinal and Aromatic Crops | 3 | 0 | 0 | 3 |
| PROGRAMME ELECTIVE-V   |             |  |   |   |   |   |
| Sl. No.                | Course Code | Course Title   | L | T | P | C |
| 1                      | ECE 427     | Renewable Energy Sources   | 3 | 0 | 0 | 3 |
| 2                      | AGR 415     | Food Processing Plant Design & Layout                                    | 3 | 0 | 0 | 3 |
| 3                      | AGR 417     | Tractor Design Principle   | 3 | 0 | 0 | 3 |