

Appendix 1. Courses and Workload hours of the Undergraduate Programme in Agricultural Technology Education (Curriculum 2018)

| Semester | Course Code | Course Title | Credits | Workload Hours | ECTS |
|----------|-------------|---|---------|----------------|------|
| 1 | 18B01C101 | Pancasila Education | 3 | 136 | 4.5 |
| | 18B01C102 | Citizenship Education | 3 | 136 | 4.5 |
| | 18B01C103 | English | 2 | 90.66 | 3 |
| | 18B01C104 | Philosophy | 2 | 90.66 | 3 |
| | 18B01C105 | Introduction to Fisheries and Agricultural Technology | 2 | 90.66 | 3 |
| | 18B01C106 | Engineering Maths | 2 | 90.66 | 3 |
| | 18B01C107 | Applied Physics | 2 | 90.66 | 3 |
| | 18B01C108 | Applied Chemistry | 2 | 90.99 | 3 |
| | 18B01C109 | Applied Biology | 2 | 90.66 | 3 |
| | SUM | | | 20 | |
| 2 | 18B01C201 | Islamic Religion Education | 3 | 136 | 4.5 |
| | 18B01C202 | Indonesian Language | 3 | 136 | 4.5 |
| | 18B01C203 | Introduction to Vocational Education | 3 | 136 | 4.5 |
| | 18B01C204 | Agricultural Products Biochemistry | 2 | 90.66 | 3 |
| | 18B01C205 | Engineering Mechanics | 2 | 90.66 | 3 |
| | 18B01C206 | Health Management System and Work Safety | 2 | 90.66 | 3 |
| | 18B01C207 | Agricultural Workshop | 3 | 136 | 4.5 |
| | 18B01C208 | Engineering Drawing | 2 | 90.66 | 3 |
| | SUM | | | 20 | |
| 3 | 18B01C301 | Student Development | 3 | 136 | 4.5 |
| | 18B01C302 | Learn and Learning | 3 | 136 | 4.5 |
| | 18B01C303 | Educational Psychology | 2 | 90.66 | 3 |
| | 18B01C304 | Fundamental of Agricultural Cultivation | 2 | 90.66 | 3 |
| | 18B01C305 | Thermodynamics | 2 | 90.66 | 3 |
| | 18B01C306 | Fish Breeding Technology | 2 | 90.66 | 3 |
| | 18B01C307 | Computer Application and Programming | 3 | 136 | 4.5 |
| | 18B01C308 | Agricultural Microbiology | 2 | 90.66 | 3 |
| | 18B01C309 | Entrepreneurship | 3 | 136 | 4.5 |
| | 18B01C310 | Agroclimatology | 2 | 90.66 | 3 |
| | SUM | | | 24 | |
| 4 | 18B01C401 | Teacher Profession | 3 | 136 | 4.5 |
| | 18B01C402 | Learning Planning | 3 | 136 | 4.5 |
| | 18B01C403 | Learning Media | 2 | 90.66 | 3 |
| | 18B01C404 | Agricultural Industrial System | 2 | 90.66 | 3 |
| | 18B01C405 | Food Security | 2 | 90.66 | 3 |

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|----------|-------------------------|---|-----------|-------|-----------|
| | 18B01C406 | Post-Harvest Fisiology | 3 | 136 | 4.5 |
| | 18B01C407 | Sanitation and Agricultural Waste Handing | 2 | 90.66 | 3 |
| | 18B01C408 | Fluid Mechanics | 2 | 90.66 | 3 |
| | 18B01C409 | Management of Coastal and Marine Areas | 2 | 90.66 | 3 |
| | 18B01C410 | Aquaculture Technology | 3 | 136 | 4.5 |
| | SUM | | 24 | | 36 |
| 5 | 18B01C501 | Learning Strategy | 2 | 90.66 | 3 |
| | 18B01C502 | Learning Evaluation | 2 | 90.66 | 3 |
| | 18B01C503 | Research Methodologi and Scientific Writing | 3 | 136 | 4.5 |
| | 18B01C504 | Statistics | 2 | 90.66 | 3 |
| | 18B01C505 | Fishing Technology | 3 | 136 | 4.5 |
| | 18B01C506 | Agricultural Machinery and Equipments | 3 | 136 | 4.5 |
| | 18B01C507 | Agricultural Processing and Preservation Technology | 3 | 136 | 4.5 |
| | SUM | | 18 | | 27 |
| | Elective Courses | | | | |
| | 18B01C508 | Hydroponic Technique* | 2 | 90.66 | 3 |
| | 18B01C509 | Agricultural Machinery Design* | 2 | 90.66 | 3 |
| | 18B01C510 | Agricultural Robotics* | 2 | 90.66 | 3 |
| | 18B01C511 | Agricultural Building Construction* | 2 | 90.66 | 3 |
| | 18B01C512 | Agricultural Production Machinery* | 2 | 90.66 | 3 |
| | 18B01C513 | Drainage and Irrigation Techniques* | 2 | 90.66 | 3 |
| | 18B01C514 | Evaluation of Agricultural Product Nutrition** | 2 | 90.66 | 3 |
| | 18B01C515 | Fermentation Technology** | 2 | 90.66 | 3 |
| | 18B01C516 | Technology of Herbal Processing** | 2 | 90.66 | 3 |
| | 18B01C517 | Quality Management and Food Regulation** | 2 | 90.66 | 3 |
| | 18B01C518 | Food Fortification Technology** | 2 | 90.66 | 3 |
| | 18B01C519 | Agricultural Product Processing Technology** | 2 | 90.66 | 3 |
| | 18B01C520 | Fish Feed*** | 2 | 90.66 | 3 |
| | 18B01C521 | Fish Disease*** | 2 | 90.66 | 3 |
| | 18B01C522 | Planktonology*** | 2 | 90.66 | 3 |
| | 18B01C523 | Aquatic Ecology*** | 2 | 90.66 | 3 |
| | 18B01C524 | Marine Biology*** | 2 | 90.66 | 3 |
| | 18B01C525 | Project Evaluation and Business Planning*** | 2 | 90.66 | 3 |
| | SUM | | 6 | | 9 |

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|------------|-------------------------|---|----------------------------|-----------|-----------|-----------|
| 6 | 18B01C601 | Micro Learning | 2 | 90.66 | 3 | |
| | 18B01C602 | Experimental Design in Engineering Research | 2 | 90.66 | 3 | |
| | 18B01C603 | Packaging and Storage Techniques | 2 | 90.66 | 3 | |
| | 18B01C604 | Food Analysis | 3 | 136 | 4.5 | |
| | 18B01C605 | Economics and Engineering Management | 2 | 90.66 | 3 | |
| | 18B01C606 | Seminar | 1 | 45.33 | 1.5 | |
| | SUM | | | 12 | | 18 |
| | Elective Courses | | | | | |
| | 18B01C607 | Pump and Compressor* | 2 | 90.66 | 3 | |
| | 18B01C608 | Daya dalam Bidang Pertanian* Power in Agriculture* | 2 | 90.66 | 3 | |
| | 18B01C609 | Drying Technique* | 2 | 90.66 | 3 | |
| | 18B01C610 | Physical Characteristics and Biology of mechanic Materials* | 2 | 90.66 | 3 | |
| | 18B01C611 | Agricultural Electricity and Energy* | 2 | 90.66 | 3 | |
| | 18B01C612 | Agricultural product Processing Machinery Design* | 2 | 90.66 | 3 | |
| | 18B01C613 | Fungsional Food Development** | 2 | 90.66 | 3 | |
| | 18B01C614 | Enzyme Technology** | 2 | 90.66 | 3 | |
| | 18B01C615 | New Product Processing Technology** | 2 | 90.66 | 3 | |
| | 18B01C616 | Toxicology** | 2 | 90.66 | 3 | |
| | 18B01C617 | Sensory Evaluation** | 2 | 90.66 | 3 | |
| | 18B01C618 | Agricultural Waste Utilization Technology** | 2 | 90.66 | 3 | |
| | 18B01C619 | Aquatic Conservation*** | 2 | 90.66 | 3 | |
| | 18B01C620 | Ichthyology*** | 2 | 90.66 | 3 | |
| | 18B01C621 | Oceanography*** | 2 | 90.66 | 3 | |
| | 18B01C622 | Water Quality*** | 2 | 90.66 | 3 | |
| | 18B01C623 | Information System and Personnel Management*** | 2 | 90.66 | 3 | |
| | 18B01C624 | Fishing Ground Analysis*** | 2 | 90.66 | 3 | |
| | 18B01C625 | Management of Fish Processing Industry*** | 2 | 90.66 | 3 | |
| | SUM | | | 6 | | 9 |
| | 7 | 18B01C701 | Field Experience Programme | 4 | 181.33 | 6 |
| 18B01C702 | | Community Service Programme | 3 | 136 | 4.5 | |
| 18B01C703 | | Industrial Practice | 3 | 136 | 4.5 | |
| SUM | | | 10 | | 15 | |
| 8 | 18B01C801 | Thesis | 4 | 181.33 | 6 | |

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|--|------------|------------|------------|--|------------|
| | SUM | | 4 | | 6 |
| | | SUM | 144 | | 216 |