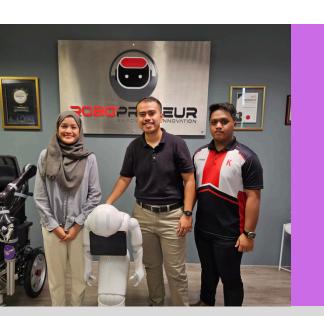


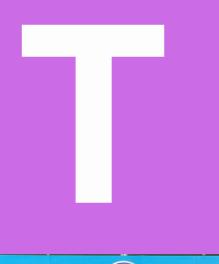
Faculty of Mechanical and Automotive Engineering Technology

Fakulti Teknologi Kejuruteraan Mekanikal dan Automotif

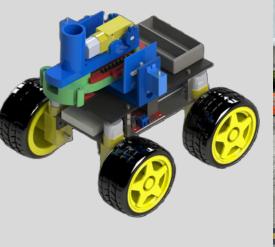














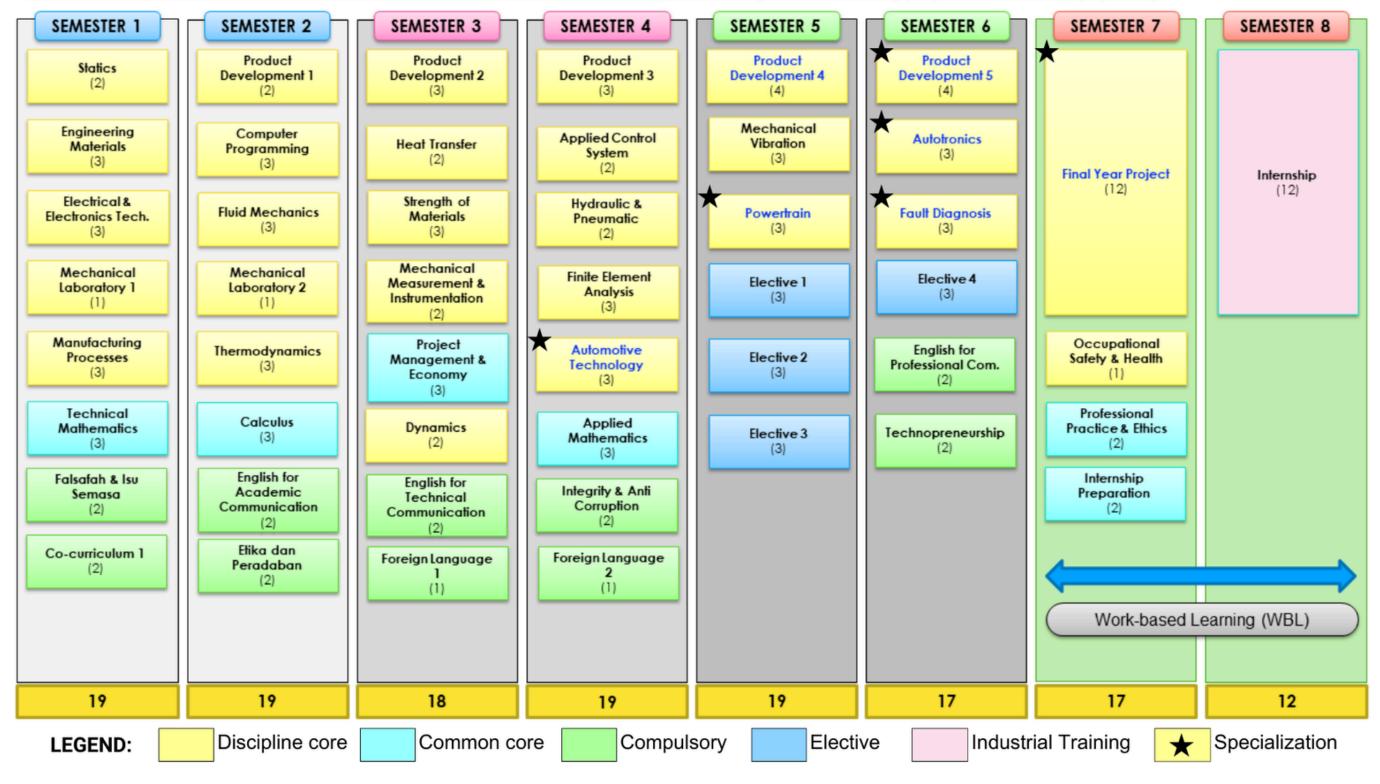




Bachelor of Mechanical Engineering Technology (Automotive) with Honours

COURSE STRUCTURE

Curriculum Structure for Bachelor of Mechanical Engineering Technology (Automotive) (BTA)



SPECIALIZATION COURSES

- 1. BTA2663 Automotive Technology
- 2. BTA3133 Powertrain
- 3. BTD3233 Autotronics
- 4.BTD3243 Fault Diagnosis

ELECTIVE COURSES

- 1. BTA3313 Automotive Product Development
- 2. BTA3323 Automotive Advanced Technology
- 3. BTA3333 Energy Efficient Vehicle
- 4. BTA3343 Motorsport Engineering
- 5. BTA3353 Technology in ICE
- 6.BTA3363 Electric and Hybrid Vehicle Technology
- 7. BTD3323 Production Planning and Control
- 8. BTD3333 Mechanics of Composite Materials
- 9. BTD3343 Fatigue Design and Analysis
- 10.BTD3353 Data Analysis and Visualization for Engineers
- 11. BTG3553 Asset Reliability Practitioner
- 12. BTG3543 Tank Design
- 13. BTG3563 Boiler and Steam Engineers
- 14. BTG3533 Elements of Mechanical Design
- 15. BTG3573 Non-Destructive Testing Technology

PECAHAN KURSUS BERDASARKAN MODUL/BIDANG DAN CARA PENGIRAAN PERATUS PENGKHUSUSAN PROGRAM ENG. TECH.

| MODUL WAJIB (COMPULSORY MODULE) | 18 |
|--|-----|
| MODUL ELEKTIF (ELECTIVES MODULES) | 12 |
| MODUL TERAS UMUM (COMMON CORE) | 16 |
| MODUL TERAS DISIPLIN (DISCIPLINE CORE) | 82 |
| LATIHAN INDUSTRI (INDUSTRIAL TRAINING) | 12 |
| TOTAL | 140 |

| GENERAL COMPONENT (COMPULSORY + ELECTIVES) | 30 |
|--|-----|
| TECHNOLOGY COMPONENT (COMMON CORE + DISCIPLINE CORE + INDUSTRIAL TRAINING) | 110 |

| MODUL TERAS UMUM (COMMON CORE) TECHNICAL MATHEMATICS | | | - |
|--|--|---------|--|
| CALCULUS BUM1223 3 APPLIED MATHEMATICS BUM2113 3 PROJECT MANAGEMENT AND ECONOMY BTD2273 3 PROFESSIONAL PRACTICE & ETHICS BTD4122 2 INTERNSHIP PREPARATION BTD3222 2 INTERNSHIP PREPARATION BTD3222 2 MODUL TERAS DISIPLIN (DISCIPLINE CORE) BTD1112 2 STATICS BTD1112 2 ENGINEERING MATERIALS BTD1123 3 ELECTRICAL & ELECTRONICS TECHNOLOGY BTD1133 3 MANUFACTURING PROCESSES BTD1143 3 MECHANICAL LABORATORY 1 BTD1212 2 THERMODYNAMICS BTD1233 3 COMPUTER PROGRAMMING BTD1243 3 FLUID MECHANICS BTD2123 3 MECHANICAL LABORATORY 2 BTD2123 3 MECHANICAL LABORATORY 2 BTD2131 3 DYNAMICS BTD2123 3 STERNGTH OF MATERIALS BTD2133 3 MECHANICAL MEASUREMENT & INSTRUMENTATI(BTD2142 2 | | | |
| APPLIED MATHEMATICS PROJECT MANAGEMENT AND ECONOMY BTD2273 3 PROFESSIONAL PRACTICE & ETHICS BTD4122 INTERNSHIP PREPARATION BTD3222 2 INTERNSHIP PREPARATION BTD4122 2 ENGINEERING MATERIALS BTD1112 3 ELECTRICAL & ELECTRONICS TECHNOLOGY BTD1133 3 MANUFACTURING PROCESSES BTD1143 3 MECHANICAL LABORATORY 1 BTD1151 1 PRODUCT DEVELOPMENT 1 BTD1212 2 THERMODYNAMICS BTD1233 3 COMPUTER PROGRAMMING BTD1243 3 FLUID MECHANICS BTD2123 MECHANICAL LABORATORY 2 BTD1251 1 PRODUCT DEVELOPMENT 2 BTD2133 MECHANICAL LABORATORY 2 BTD1251 1 PRODUCT DEVELOPMENT 2 BTD2133 3 MECHANICAL MEASUREMENT & INSTRUMENTATION BTD2142 2 HEAT TRANSFER BTD2242 PRODUCT DEVELOPMENT 3 BTD1233 3 FINITE ELEMENT ANALYSIS BTD1233 3 APPLIED CONTROL SYSTEM BTD2232 2 HYDRAULIC & PNEUMATIC BTD2252 2 MECHANICAL VIBRATION BTD2252 3 OCCUPATIONAL SAFETY & HEALTH BTD4131 1 PRODUCT DEVELOPMENT 5 BTD3114 4 PR | The Plane School and Charles State and Charles School and Charles Scho | | |
| PROJECT MANAGEMENT AND ECONOMY BTD2273 3 PROFESSIONAL PRACTICE & ETHICS BTD4122 2 INTERNSHIP PREPARATION BTD3222 2 TOTAL 16 | | | |
| PROFESSIONAL PRACTICE & ETHICS BTD4122 2 INTERNSHIP PREPARATION BTD3222 2 TOTAL 16 16 MODUL TERAS DISIPLIN (DISCIPLINE CORE) STATICS BTD1112 2 ENGINEERING MATERIALS BTD1112 3 ELECTRICAL & ELECTRONICS TECHNOLOGY BTD1133 3 MANUFACTURING PROCESSES BTD1143 3 MECHANICAL LABORATORY 1 BTD1151 1 PRODUCT DEVELOPMENT 1 BTD1212 2 THERMODYNAMICS BTD1233 3 COMPUTER PROGRAMMING BTD1243 3 FLUID MECHANICS BTD1233 3 GOMPUTER PROGRAMMING BTD1243 3 FLUID MECHANICS BTD1251 1 PRODUCT DEVELOPMENT 2 BTD2113 3 DYNAMICS BTD1251 1 PRODUCT DEVELOPMENT 2 BTD2113 3 MECHANICAL LABORATORY 2 BTD1251 1 PRODUCT DEVELOPMENT 2 BTD2113 3 MECHANICAL MEASUREMENT & INSTRUMENTATIC BTD2142 2 HEAT TRANSFER BTD2242 2 PRODUCT DEVELOPMENT 3 BTD2213 3 FINITE ELEMENT ANALYSIS BTD3123 3 FINITE ELEMENT ANALYSIS BTD3124 4 | 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | | |
| INTERNSHIP PREPARATION | | | |
| MODUL TERAS DISIPLIN (DISCIPLINE CORE) STATICS BTD1112 2 ENGINEERING MATERIALS BTD1123 3 ELECTRICAL & ELECTRONICS TECHNOLOGY BTD1133 3 MANUFACTURING PROCESSES BTD1143 3 MECHANICAL LABORATORY 1 BTD1151 1 PRODUCT DEVELOPMENT 1 BTD1212 2 THERMODYNAMICS BTD1233 3 COMPUTER PROGRAMMING BTD1243 3 FLUID MECHANICS BTD2123 3 MECHANICAL LABORATORY 2 BTD1251 1 PRODUCT DEVELOPMENT 2 BTD2113 3 DYNAMICS BTD1251 1 PRODUCT DEVELOPMENT 2 BTD2113 3 MECHANICAL LABORATORY 2 BTD2113 3 MECHANICAL LABORATORY 2 BTD2124 2 STRENGTH OF MATERIALS BTD222 2 STRENGTH OF MATERIALS BTD2133 3 MECHANICAL MEASUREMENT & INSTRUMENTATI (BTD2142 2 HEAT TRANSFER BTD2242 2 PRODUCT DEVELOPMENT 3 BTD2213 3 FINITE ELEMENT ANALYSIS BTD3123 3 APPLIED CONTROL SYSTEM BTD2232 2 HYDRAULIC & PNEUMATIC BTD2252 3 OCCUPATIONAL SAFETY & HEALTH BTD4131 1 PRODUCT DEVELOPMENT 4 BTD3114 4 PRODUCT DEVELOPMENT 5 BTD3214 4 PRODUCT DEVELOPMENT 5 BT | | | |
| MODUL TERAS DISIPLIN (DISCIPLINE CORE) STATICS | INTERNSHIP PREPARATION | | A STATE OF THE STA |
| STATICS | | TOTAL | 16 |
| ENGINEERING MATERIALS ELECTRICAL & ELECTRONICS TECHNOLOGY BTD1133 MANUFACTURING PROCESSES BTD1143 MECHANICAL LABORATORY 1 PRODUCT DEVELOPMENT 1 THERMODYNAMICS COMPUTER PROGRAMMING BTD1233 MECHANICAL LABORATORY 2 BTD1233 MECHANICAL LABORATORY 2 BTD1243 MECHANICAL LABORATORY 2 BTD1243 MECHANICAL LABORATORY 2 BTD1251 PRODUCT DEVELOPMENT 2 BTD2133 MECHANICAL LABORATORY 2 STRENGTH OF MATERIALS MECHANICAL MEASUREMENT & INSTRUMENTATI(BTD2142 LEAT TRANSFER BTD2242 PRODUCT DEVELOPMENT 3 FINITE ELEMENT ANALYSIS APPLIED CONTROL SYSTEM BTD2232 HYDRAULIC & PNEUMATIC BTD2252 MECHANICAL VIBRATION BTD2233 OCCUPATIONAL SAFETY & HEALTH BTD4131 PRODUCT DEVELOPMENT 4 BTD3114 PRODUCT DEVELOPMENT 5 BTD3214 SPECIALIZATION 1 BT*2*** 3 SPECIALIZATION 2 BT*3*** 3 SPECIALIZATION 4 BT*4212 LATIHAN INDUSTRI (INDUSTRIAL TRAINING) INDUSTRIAL TRAINING BT*4212 12 | | | |
| ELECTRICAL & ELECTRONICS TECHNOLOGY MANUFACTURING PROCESSES BTD1143 MECHANICAL LABORATORY 1 PRODUCT DEVELOPMENT 1 PRODUCT DEVELOPMENT 1 THERMODYNAMICS COMPUTER PROGRAMMING BTD1233 GCMPUTER PROGRAMMING BTD1243 FLUID MECHANICS BTD2123 MECHANICAL LABORATORY 2 BTD2123 MECHANICAL LABORATORY 2 BTD2113 DYNAMICS STRENGTH OF MATERIALS BTD1222 STRENGTH OF MATERIALS MECHANICAL MEASUREMENT & INSTRUMENTATI(BTD2142 HEAT TRANSFER BTD2242 PRODUCT DEVELOPMENT 3 FINITE ELEMENT ANALYSIS BTD3123 APPLIED CONTROL SYSTEM BTD2232 HYDRAULIC & PNEUMATIC BTD2252 MECHANICAL VIBRATION BTD2223 OCCUPATIONAL SAFETY & HEALTH BTD4131 PRODUCT DEVELOPMENT 4 BTD3114 PRODUCT DEVELOPMENT 5 BTD3214 SPECIALIZATION 1 SPECIALIZATION 1 SPECIALIZATION 2 BT*3*** 3 SPECIALIZATION 3 SPECIALIZATION 4 BT*3*** 3 SPECIALIZATION 5 BT*4112 LATIHAN INDUSTRIAL TRAINING) INDUSTRIAL TRAINING INDUSTRIAL TRAINING | | | |
| MANUFACTURING PROCESSES MECHANICAL LABORATORY 1 PRODUCT DEVELOPMENT 1 PRODUCT DEVELOPMENT 1 PRODUCT DEVELOPMENT 1 THERMODYNAMICS COMPUTER PROGRAMMING BTD1233 BTD1233 GCMPUTER PROGRAMMING BTD1243 FLUID MECHANICS MECHANICAL LABORATORY 2 BTD2123 MECHANICAL LABORATORY 2 BTD2113 DYNAMICS STRENGTH OF MATERIALS MECHANICAL MEASUREMENT & INSTRUMENTATI(BTD2133 MECHANICAL MEASUREMENT & INSTRUMENTATI(BTD2142 PRODUCT DEVELOPMENT 3 BTD2242 PRODUCT DEVELOPMENT 3 BTD2242 PRODUCT DEVELOPMENT 3 BTD2213 APPLIED CONTROL SYSTEM BTD2232 HYDRAULIC & PNEUMATIC BTD2252 MECHANICAL VIBRATION BTD2223 OCCUPATIONAL SAFETY & HEALTH BTD4131 PRODUCT DEVELOPMENT 4 BTD3114 PRODUCT DEVELOPMENT 5 BTD3214 SPECIALIZATION 1 SPECIALIZATION 1 SPECIALIZATION 2 BT*3*** 3 SPECIALIZATION 3 SPECIALIZATION 4 BT*3*** 3 SPECIALIZATION 6 BT*4212 LATIHAN INDUSTRIAL TRAINING) INDUSTRIAL TRAINING INDUSTRIAL TRAINING | The same and the control of the same and the | BTD1123 | |
| MECHANICAL LABORATORY 1 PRODUCT DEVELOPMENT 1 BTD1212 2 THERMODYNAMICS BTD1233 3 COMPUTER PROGRAMMING BTD1243 3 FLUID MECHANICS BTD2123 3 MECHANICAL LABORATORY 2 BTD2123 3 MECHANICAL LABORATORY 2 BTD251 1 PRODUCT DEVELOPMENT 2 BTD2113 3 DYNAMICS BTD1222 2 STRENGTH OF MATERIALS BTD2133 3 MECHANICAL MEASUREMENT & INSTRUMENTATION BTD2142 2 HEAT TRANSFER BTD2242 2 PRODUCT DEVELOPMENT 3 BTD2213 3 FINITE ELEMENT ANALYSIS BTD3123 3 APPLIED CONTROL SYSTEM BTD2232 2 HYDRAULIC & PNEUMATIC BTD2252 MECHANICAL VIBRATION BTD2223 3 OCCUPATIONAL SAFETY & HEALTH BTD3114 4 PRODUCT DEVELOPMENT 5 BTD3214 4 PRODUCT DEVELOPMENT 5 BTD3214 4 SPECIALIZATION 1 BT*2*** 3 SPECIALIZATION 2 BT*3*** 3 SPECIALIZATION 4 BT*3*** 3 SPECIALIZATION 6 BT*4112 12 TOTAL 82 LATIHAN INDUSTRI (INDUSTRIAL TRAINING) INDUSTRIAL TRAINING | ELECTRICAL & ELECTRONICS TECHNOLOGY | BTD1133 | |
| PRODUCT DEVELOPMENT 1 BTD1212 2 THERMODYNAMICS BTD1233 3 COMPUTER PROGRAMMING BTD1243 3 FLUID MECHANICS BTD2123 3 MECHANICAL LABORATORY 2 BTD2113 3 MECHANICAL LABORATORY 2 BTD2113 3 DYNAMICS BTD2113 3 DYNAMICS BTD2133 3 MECHANICAL MEASUREMENT & INSTRUMENTATION BTD2133 3 MECHANICAL MEASUREMENT & INSTRUMENTATION BTD2242 2 PRODUCT DEVELOPMENT 3 BTD2213 3 FINITE ELEMENT ANALYSIS BTD3123 3 APPLIED CONTROL SYSTEM BTD2232 2 HYDRAULIC & PNEUMATIC BTD2252 2 MECHANICAL VIBRATION BTD2223 3 OCCUPATIONAL SAFETY & HEALTH BTD4131 1 PRODUCT DEVELOPMENT 4 BTD3114 4 PRODUCT DEVELOPMENT 5 BTD3214 4 SPECIALIZATION 1 BT*3*** 3 SPECIALIZATION 4 BT*3*** 3 | MANUFACTURING PROCESSES | BTD1143 | 3 |
| THERMODYNAMICS COMPUTER PROGRAMMING BTD1243 BTD1243 BTD1243 BTD1223 MECHANICAL LABORATORY 2 BTD1251 PRODUCT DEVELOPMENT 2 BTD2113 DYNAMICS BTD1222 STRENGTH OF MATERIALS MECHANICAL MEASUREMENT & INSTRUMENTATIC BTD2142 HEAT TRANSFER BTD2242 PRODUCT DEVELOPMENT 3 FINITE ELEMENT ANALYSIS APPLIED CONTROL SYSTEM BTD2232 HYDRAULIC & PNEUMATIC BTD2252 MECHANICAL VIBRATION BTD2223 OCCUPATIONAL SAFETY & HEALTH BTD4131 PRODUCT DEVELOPMENT 4 BTD3114 PRODUCT DEVELOPMENT 4 BTD3114 PRODUCT DEVELOPMENT 5 BTD3214 SPECIALIZATION 1 BT*2*** 3 SPECIALIZATION 2 BT*3*** 3 SPECIALIZATION 4 BT*3*** 3 SPECIALIZATION 4 BT*3*** 3 SPECIALIZATION 4 BT*3*** 3 SPECIALIZATION 4 BT*4112 TOTAL 82 LATIHAN INDUSTRIAL TRAINING) IINDUSTRIAL TRAINING BT*4212 12 | MECHANICAL LABORATORY 1 | BTD1151 | 1 |
| COMPUTER PROGRAMMING FLUID MECHANICS BTD2123 MECHANICAL LABORATORY 2 BTD1251 PRODUCT DEVELOPMENT 2 BTD2113 DYNAMICS STRENGTH OF MATERIALS MECHANICAL MEASUREMENT & INSTRUMENTATI(BTD2142 LEAT TRANSFER BTD2242 PRODUCT DEVELOPMENT 3 FINITE ELEMENT ANALYSIS APPLIED CONTROL SYSTEM BTD2232 HYDRAULIC & PNEUMATIC BTD2252 MECHANICAL VIBRATION BTD2233 OCCUPATIONAL SAFETY & HEALTH PRODUCT DEVELOPMENT 4 PRODUCT DEVELOPMENT 5 BTD3114 PRODUCT DEVELOPMENT 4 PRODUCT DEVELOPMENT 4 PRODUCT DEVELOPMENT 5 BTD3114 APPLIED CONTROL SYSTEM BTD2213 SPECIALIZATION 1 BT*2*** SPECIALIZATION 2 BT*3*** SPECIALIZATION 3 SPECIALIZATION 4 BT*3*** SPECIALIZATION 4 BT*3*** BT*4112 TOTAL 82 LATIHAN INDUSTRIAL TRAINING) IINDUSTRIAL TRAINING BT*4212 12 | PRODUCT DEVELOPMENT 1 | BTD1212 | 2 |
| FLUID MECHANICS MECHANICAL LABORATORY 2 PRODUCT DEVELOPMENT 2 DYNAMICS STRENGTH OF MATERIALS MECHANICAL MEASUREMENT & INSTRUMENTATION HEAT TRANSFER PRODUCT DEVELOPMENT 3 FINITE ELEMENT ANALYSIS APPLIED CONTROL SYSTEM HYDRAULIC & PNEUMATIC MECHANICAL VIBRATION OCCUPATIONAL SAFETY & HEALTH PRODUCT DEVELOPMENT 4 PRODUCT DEVELOPMENT 4 PRODUCT DEVELOPMENT 4 SPECIALIZATION 1 SPECIALIZATION 2 SPECIALIZATION 4 FINAL YEAR PROJECT META311 APPLIED CONTROL SYSTEM BTD3114 APPLIED CONTROL SYSTEM BTD4131 PRODUCT DEVELOPMENT 4 BTD4131 BTD4131 BTC5232 BTC72*** 3 SPECIALIZATION 1 BT*2*** 3 SPECIALIZATION 2 BT*3*** 3 SPECIALIZATION 4 BT*3*** 3 SPECIALIZATION 4 FINAL YEAR PROJECT TOTAL 82 LATIHAN INDUSTRIAL TRAINING) IINDUSTRIAL TRAINING | THERMODYNAMICS | BTD1233 | 3 |
| MECHANICAL LABORATORY 2 PRODUCT DEVELOPMENT 2 BTD2113 BTD2113 DYNAMICS BTD1222 STRENGTH OF MATERIALS BTD2133 MECHANICAL MEASUREMENT & INSTRUMENTATIC BTD2142 HEAT TRANSFER BTD2242 PRODUCT DEVELOPMENT 3 FINITE ELEMENT ANALYSIS BTD3123 APPLIED CONTROL SYSTEM BTD2232 HYDRAULIC & PNEUMATIC BTD2252 MECHANICAL VIBRATION BTD2233 OCCUPATIONAL SAFETY & HEALTH BTD4131 PRODUCT DEVELOPMENT 4 PRODUCT DEVELOPMENT 4 BTD3114 PRODUCT DEVELOPMENT 5 BTD3214 SPECIALIZATION 1 BT*2*** 3 SPECIALIZATION 2 BT*3*** 3 SPECIALIZATION 4 BT*3*** 3 SPECIALIZATION 6 BT*4112 TOTAL 82 LATIHAN INDUSTRI (INDUSTRIAL TRAINING) IINDUSTRIAL TRAINING | COMPUTER PROGRAMMING | BTD1243 | 3 |
| PRODUCT DEVELOPMENT 2 BTD2113 3 DYNAMICS BTD1222 2 STRENGTH OF MATERIALS BTD2133 3 MECHANICAL MEASUREMENT & INSTRUMENTATI(BTD2142 2 HEAT TRANSFER BTD2242 2 PRODUCT DEVELOPMENT 3 BTD2213 3 FINITE ELEMENT ANALYSIS BTD3123 3 APPLIED CONTROL SYSTEM BTD2232 2 HYDRAULIC & PNEUMATIC BTD2252 2 MECHANICAL VIBRATION BTD2223 3 OCCUPATIONAL SAFETY & HEALTH BTD4131 1 PRODUCT DEVELOPMENT 4 BTD3114 4 PRODUCT DEVELOPMENT 5 BTD3214 4 SPECIALIZATION 1 BT*2*** 3 SPECIALIZATION 2 BT*3*** 3 SPECIALIZATION 4 BT*3*** 3 FINAL YEAR PROJECT BT*4112 12 LATIHAN INDUSTRI (INDUSTRIAL TRAINING) BT*4212 12 | FLUID MECHANICS | BTD2123 | 3 |
| DYNAMICS STRENGTH OF MATERIALS MECHANICAL MEASUREMENT & INSTRUMENTATIC BTD2142 HEAT TRANSFER BTD2242 PRODUCT DEVELOPMENT 3 FINITE ELEMENT ANALYSIS APPLIED CONTROL SYSTEM BTD2232 HYDRAULIC & PNEUMATIC MECHANICAL VIBRATION OCCUPATIONAL SAFETY & HEALTH PRODUCT DEVELOPMENT 4 PRODUCT DEVELOPMENT 4 PRODUCT DEVELOPMENT 5 BTD3214 APPCIALIZATION 1 SPECIALIZATION 2 SPECIALIZATION 3 SPECIALIZATION 4 FINAL YEAR PROJECT BT*4112 TOTAL 82 LATIHAN INDUSTRI (INDUSTRIAL TRAINING) INDUSTRIAL TRAINING BT*4212 12 | MECHANICAL LABORATORY 2 | BTD1251 | 1 |
| STRENGTH OF MATERIALS MECHANICAL MEASUREMENT & INSTRUMENTATI(BTD2142 2 | PRODUCT DEVELOPMENT 2 | BTD2113 | 3 |
| MECHANICAL MEASUREMENT & INSTRUMENTATION BTD2142 2 HEAT TRANSFER BTD2242 2 PRODUCT DEVELOPMENT 3 BTD2213 3 FINITE ELEMENT ANALYSIS BTD3123 3 APPLIED CONTROL SYSTEM BTD2232 2 HYDRAULIC & PNEUMATIC BTD252 2 MECHANICAL VIBRATION BTD2233 3 OCCUPATIONAL SAFETY & HEALTH BTD4131 1 PRODUCT DEVELOPMENT 4 BTD3114 4 PRODUCT DEVELOPMENT 5 BTD3214 4 SPECIALIZATION 1 BT*2*** 3 SPECIALIZATION 2 BT*3*** 3 SPECIALIZATION 3 BT*3*** 3 SPECIALIZATION 4 BT*3*** 3 SPECIALIZATION 4 BT*3*** 3 FINAL YEAR PROJECT BT*4112 12 TOTAL 82 LATIHAN INDUSTRIAL TRAINING) INDUSTRIAL TRAINING BT*4212 12 | DYNAMICS | BTD1222 | 2 |
| HEAT TRANSFER PRODUCT DEVELOPMENT 3 FINITE ELEMENT ANALYSIS APPLIED CONTROL SYSTEM BTD2232 HYDRAULIC & PNEUMATIC MECHANICAL VIBRATION BTD2252 MECHANICAL VIBRATION BTD2233 OCCUPATIONAL SAFETY & HEALTH BTD4131 PRODUCT DEVELOPMENT 4 PRODUCT DEVELOPMENT 5 BTD3214 SPECIALIZATION 1 BT*2*** SPECIALIZATION 2 BT*3*** SPECIALIZATION 3 BT*3*** SPECIALIZATION 4 BT*3*** SPECIALIZATION 4 BT*3*** SPECIALIZATION 4 BT*3*** SPECIALIZATION 4 BT*3*** TOTAL BT*4112 TOTAL 82 LATIHAN INDUSTRI (INDUSTRIAL TRAINING) INDUSTRIAL TRAINING BT*4212 12 | STRENGTH OF MATERIALS | BTD2133 | 3 |
| PRODUCT DEVELOPMENT 3 FINITE ELEMENT ANALYSIS APPLIED CONTROL SYSTEM HYDRAULIC & PNEUMATIC MECHANICAL VIBRATION OCCUPATIONAL SAFETY & HEALTH PRODUCT DEVELOPMENT 4 PRODUCT DEVELOPMENT 5 BTD3214 SPECIALIZATION 1 SPECIALIZATION 2 SPECIALIZATION 3 SPECIALIZATION 4 FINAL YEAR PROJECT BT*4112 TOTAL BT*4212 12 BT*4212 12 | MECHANICAL MEASUREMENT & INSTRUMENTATION | BTD2142 | 2 |
| FINITE ELEMENT ANALYSIS APPLIED CONTROL SYSTEM BTD2232 HYDRAULIC & PNEUMATIC BTD2252 MECHANICAL VIBRATION BTD2233 OCCUPATIONAL SAFETY & HEALTH BTD4131 PRODUCT DEVELOPMENT 4 BTD3114 PRODUCT DEVELOPMENT 5 BTD3214 APPRODUCT DEVELOPMENT 5 BTD3214 SPECIALIZATION 1 BT*2*** 3 SPECIALIZATION 2 BT*3*** 3 SPECIALIZATION 3 BT*3*** 3 SPECIALIZATION 4 BT*3*** 3 SPECIALIZATION 6 BT*4112 TOTAL 82 LATIHAN INDUSTRIAL TRAINING) INDUSTRIAL TRAINING | HEAT TRANSFER | BTD2242 | 2 |
| APPLIED CONTROL SYSTEM HYDRAULIC & PNEUMATIC BTD2252 MECHANICAL VIBRATION BTD2233 OCCUPATIONAL SAFETY & HEALTH BTD4131 PRODUCT DEVELOPMENT 4 BTD3114 PRODUCT DEVELOPMENT 5 BTD3214 SPECIALIZATION 1 SPECIALIZATION 2 SPECIALIZATION 3 SPECIALIZATION 4 FINAL YEAR PROJECT BT*3*** TOTAL 82 LATIHAN INDUSTRI (INDUSTRIAL TRAINING) INDUSTRIAL TRAINING BT*2232 BTD3252 BTD3214 A BTD3114 A BTD3114 BTD3114 A BTD3114 BTD3114 BTD3114 BTD3114 BTD3114 A BTD3114 BTT3114 BTT3114 BTT3114 BTT3114 BTT0TAL BTT | PRODUCT DEVELOPMENT 3 | BTD2213 | 3 |
| HYDRAULIC & PNEUMATIC MECHANICAL VIBRATION OCCUPATIONAL SAFETY & HEALTH PRODUCT DEVELOPMENT 4 PRODUCT DEVELOPMENT 5 SPECIALIZATION 1 SPECIALIZATION 2 SPECIALIZATION 3 SPECIALIZATION 4 FINAL YEAR PROJECT BT 3214 BT*3*** 3 SPECIALIZATION 4 BT*3*** 3 SPECIALIZATION 4 FINAL YEAR PROJECT BT*4112 TOTAL 82 LATIHAN INDUSTRI (INDUSTRIAL TRAINING) INDUSTRIAL TRAINING BT*4212 12 | FINITE ELEMENT ANALYSIS | BTD3123 | 3 |
| MECHANICAL VIBRATION OCCUPATIONAL SAFETY & HEALTH PRODUCT DEVELOPMENT 4 PRODUCT DEVELOPMENT 5 BTD3114 4 PRODUCT DEVELOPMENT 5 BTD3214 SPECIALIZATION 1 SPECIALIZATION 2 SPECIALIZATION 3 SPECIALIZATION 4 FINAL YEAR PROJECT BT*3*** 3 SPECIALIZATION 4 BT*3*** 3 SPECIALIZATION 4 BT*3*** TOTAL 82 LATIHAN INDUSTRIAL TRAINING) INDUSTRIAL TRAINING BT*4212 12 | APPLIED CONTROL SYSTEM | BTD2232 | 2 |
| OCCUPATIONAL SAFETY & HEALTH PRODUCT DEVELOPMENT 4 PRODUCT DEVELOPMENT 5 BTD3114 4 PRODUCT DEVELOPMENT 5 BTD3214 4 SPECIALIZATION 1 SPECIALIZATION 2 SPECIALIZATION 3 SPECIALIZATION 4 FINAL YEAR PROJECT BT*3*** 3 SPECIALIZATION 4 FINAL YEAR PROJECT BT*4112 TOTAL 82 LATIHAN INDUSTRI (INDUSTRIAL TRAINING) INDUSTRIAL TRAINING BT*4212 12 | HYDRAULIC & PNEUMATIC | BTD2252 | 2 |
| PRODUCT DEVELOPMENT 4 PRODUCT DEVELOPMENT 5 BTD3214 SPECIALIZATION 1 SPECIALIZATION 2 SPECIALIZATION 3 SPECIALIZATION 4 FINAL YEAR PROJECT BT*3*** TOTAL 82 LATIHAN INDUSTRI (INDUSTRIAL TRAINING) INDUSTRIAL TRAINING BT#4212 12 | MECHANICAL VIBRATION | BTD2223 | 3 |
| PRODUCT DEVELOPMENT 5 SPECIALIZATION 1 SPECIALIZATION 2 SPECIALIZATION 3 SPECIALIZATION 3 SPECIALIZATION 4 FINAL YEAR PROJECT BT*3*** TOTAL 82 LATIHAN INDUSTRI (INDUSTRIAL TRAINING) INDUSTRIAL TRAINING BT*4212 12 | OCCUPATIONAL SAFETY & HEALTH | BTD4131 | 1 |
| SPECIALIZATION 1 BT*2*** 3 SPECIALIZATION 2 BT*3*** 3 SPECIALIZATION 3 BT*3*** 3 SPECIALIZATION 4 BT*3*** 3 FINAL YEAR PROJECT BT*4112 12 TOTAL 82 LATIHAN INDUSTRI (INDUSTRIAL TRAINING) BT*4212 12 | PRODUCT DEVELOPMENT 4 | BTD3114 | 4 |
| SPECIALIZATION 2 SPECIALIZATION 3 SPECIALIZATION 4 SPECIALIZATION 4 FINAL YEAR PROJECT BT*4112 TOTAL 82 LATIHAN INDUSTRI (INDUSTRIAL TRAINING) INDUSTRIAL TRAINING BT*4212 12 | PRODUCT DEVELOPMENT 5 | BTD3214 | 4 |
| SPECIALIZATION 3 SPECIALIZATION 4 BT*3*** 3 FINAL YEAR PROJECT BT*4112 TOTAL 82 LATIHAN INDUSTRI (INDUSTRIAL TRAINING) INDUSTRIAL TRAINING BT*3*** 3 BT*3*** 3 TOTAL 82 | SPECIALIZATION 1 | BT*2*** | 3 |
| SPECIALIZATION 4 FINAL YEAR PROJECT BT*4112 TOTAL 82 LATIHAN INDUSTRI (INDUSTRIAL TRAINING) INDUSTRIAL TRAINING BT*4212 12 | SPECIALIZATION 2 | BT*3*** | 3 |
| FINAL YEAR PROJECT BT*4112 TOTAL 82 LATIHAN INDUSTRI (INDUSTRIAL TRAINING) INDUSTRIAL TRAINING BT*4212 12 | | BT*3*** | 3 |
| LATIHAN INDUSTRI (INDUSTRIAL TRAINING) INDUSTRIAL TRAINING BT*4212 12 | SPECIALIZATION 4 | | 3 |
| LATIHAN INDUSTRI (INDUSTRIAL TRAINING) INDUSTRIAL TRAINING BT*4212 12 | FINAL YEAR PROJECT | BT*4112 | 12 |
| LATIHAN INDUSTRI (INDUSTRIAL TRAINING) INDUSTRIAL TRAINING BT*4212 12 | | TOTAL | 82 |
| INDUSTRIAL TRAINING BT*4212 12 | LATIHAN INDUSTRI (INDUSTRIAL TRAINING) | | |
| TOTAL 12 | | BT*4212 | 12 |
| | viin | TOTAL | 12 |

| JADUAL 4: | | |
|------------------------------------|---|-------------------------|
| IJAZAH SARJANA MUDA Teknologi I | | |
| Kredit Bergraduat Minimum – 14 | 40 | |
| | | |
| MODIII WAXID | Badan Pengetahuan | Kredit* |
| MODUL WAJIB I. Keperluan Nasional | Rahasa Malayu Dangajian Malaysia | 17 – 20 |
| I. Keperluan Nasional | Bahasa Melayu, Pengajian Malaysia, Pengajian Islam / Pendidikan Moral. | 17 - 20 |
| | | |
| II. Keperluan PPT | Sains Sosial / Opsyen Kemanusiaan, | |
| | Ko-Kurikulum. | |
| III. Pembangunan Peribadi | Bahasa, Kemahiran Komunikasi – | |
| III Tembunganan Tembuai | Penyampaian. | |
| | | |
| MODUL TERAS | | |
| I. Teras Umum | i. Matematik | 15 – 21 |
| | ii. Sains | |
| | iii. Modul Pembangunan Profesional yang merangkumi topik seperti | |
| | Etika Kerja, Isu Kelestarian dan | |
| | Keusahawanan. | |
| II. Teras Disiplin | Ditetapkan oleh PPT mengikut | 80 - 84 |
| | keperluan program. | (50% |
| | | melibatkan |
| | | jam kerja praktikal) |
| LATIHAN INDUSTRI | | pronund) |
| | Penempatan di tempat kerja yang | 8 – 12 |
| | bersesuaian. | |
| MODUL ELEKTIF | | |

| PENGKHUSUSAN (SPECIALIZATION) *Sebahagian daripada Teras Displin (Discipline Core) | | |
|--|-----------|-----|
| PRODUCT DEVELOPMENT 4 | BTD3114 | 4 |
| PRODUCT DEVELOPMENT 5 | BTD3214 | 4 |
| SPECIALIZATION 1 | BT*2*** | 3 |
| SPECIALIZATION 2 | BT*3*** | 3 |
| SPECIALIZATION 3 | BT*3*** | 3 |
| SPECIALIZATION 4 | BT*3*** | 3 |
| FINAL YEAR PROJECT | BT*4112 | 12 |
| | TOTAL | 32 |
| Peratusan Pengkhususan berbanding Bidang Teras Program/Komponen Teknologi (Modul Teras Umum + Modul Teras Disiplin + Latihan Industri) | 32 110 | 29% |

| MODUL WAJIB (COMPULSORY MODULE) | | |
|--|---------|----|
| CO-CURRICULUM | UQB***2 | 2 |
| FALSAFAH DAN ISU SEMASA | UHC1012 | 2 |
| ENGLISH FOR ACADEMIC COMMUNICATION | UHL2412 | 2 |
| PENGHAYATAN ETIKA DAN PERADABAN | UHC2022 | 2 |
| ENGLISH FOR TECHNICAL COMMUNICATION | UHL2422 | 2 |
| FOREIGN LANGUAGE 1 | UHF11*1 | 1 |
| SOFT SKILLS | UHS***2 | 2 |
| FOREIGN LANGUAGE 2 | UHF2**1 | 1 |
| TECHNOPRENEURSHIP | UGE2002 | 2 |
| ENGLISH FOR PROFESSIONAL COMMUNICATION | UHL2432 | 2 |
| | TOTAL | 18 |

| MODUL ELEKTIF (ELECTIVES MODULES) | | |
|-----------------------------------|---------|----|
| ELECTIVE 1 | BT*3*** | 3 |
| ELECTIVE 2 | BT*3*** | 3 |
| ELECTIVE 3 | BT*3*** | 3 |
| ELECTIVE 4 | BT*3*** | 3 |
| | TOTAL | 12 |

Rujukan: TTAC Standard (Second Edition)

Table 4.0 Minimum requirement of a programme structure of Technologist or Technician with respect to the MQF levels

| Items | Bachelor Degree (MQF Level 6) | Advanced Diploma (MQF Level 5) | Diploma (MQF Level 4) | Certificate (MQF Level 3) |
|--|--|---|-----------------------------|---------------------------------|
| Student Learning Time, SLT-based Credit Hours ⁺⁺ | Minimum 120 | Minimum 40 | Minimum 90 | Minimum 60 |
| Studies Duration | Minimum 3 years | Minimum 1 year | Minimum 2 years | Minimum 1 1/4 years |
| Technology Component Consists of Common Core, Discipline Core, Final Year Project, Industrial Training related to the field of study | Minimum 80 credit | Minimum 25 credit | Minimum 60 credit | Minimum 30 credit |
| General Component Consists of MPU courses, EP Compulsory courses, and others. | The remaining credit | The remaining credit | The remaining credit | The remaining credit |
| Theory/Knowledge- based Technology Component only SLT / Credits | Minimum 40% | Minimum 30% | Minimum 20% | Minimum 20% |
| Practical/Modern Tool Usage-based Technology Component only SLT / Credits | Minimum 40% | Minimum 60% | Minimum 60% | Minimum 60% |

Rujukan: GARIS PANDUAN PEMBANGUNAN PROGRAM AKADEMIK UNIVERSITI AWAM (Edisi Kedua)

Jadual 1.6: Kaedah Penamaan Program Berdasarkan Struktur Program

| Bil. | Struktur Program | Huraian |
|------|--|--|
| 1. | Major | Program yang mempunyai sekurang-kurangnya 70%* komponen dalam sesuatu bidang utama program. Contohnya Sarjana Muda Sains Aktuari/Bachelor in Actuarial Science |
| 2. | Major dengan Pengkhususan (Major with Specialisation) | Program yang mempunyai bidang pengkhususan tertentu yang meliputi 25-30%* pengetahuan dalam sesuatu bidang utama program**. Bidang pengkhususan ini dinyatakan dalam kurungan. Contohnya Sarjana Muda Sains Komputer (Pengaturcaraan)/Bachelor of Computer Science (Programming). Bagi program tahap Sijil dan Diploma, struktur program dengan pengkhususan tidak dibenarkan, maka penamaan sedemikian tidak boleh diterima pakai. |

^{**} Bidang utama merujuk kepada bidang teras program (Kursus teras disiplin yang wajib diikuti oleh pelajar, selain daripada Kursus Umum dan Kursus Elektif)