The Open University of Sri Lanka
Faculty of Engineering Technology

# A Guide for Re-registering Students
## Academic Year 2023/24

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*" The mission of the Faculty of Engineering Technology is to provide lifelong learning opportunities in Engineering and Technology for all to meet industrial and social needs through open and distance learning, and support research & scholarship by efficient & sustainable use of resources."*

## Preface

The Faculty of Engineering Technology has revised the curricula of all its Study Programmes to comply with the Sri Lanka Qualification Framework (SLQF) by incorporating extensive updates to the course syllabi. The Revised Curriculum (RC) is now fully implemented.

This Guide provides information for all the students registered up to the academic year 2019/20. This Guide contains the courses that are offered in the academic year 2023/24.

*Those students who intended to fulfil the award requirements (Higher Diploma/Degree) under the Interim Curriculum (IC) of different Study Programmes should have completed their award requirements by the end of the Academic Year 2022/2023.*

The course lists in this Guide are based on these RC requirements (compulsory/elective).

## Time schedule for student registration

**The Faculty of Engineering Technology has planned to conduct Re-registration, Add/Drop and withdrawal from courses during the following dates:**

❖ **Re-registration (BSc, BIS & ACAT): 2024 April 9 (Tuesday), 10 (Wednesday), 20 (Saturday) and 22\* (Monday) at all Centres (\*only at CRC) ·**

❖ **Re-registration (BSE): 2024 April 5 (Friday), 6 (Saturday) (intakes prior to 2021, all centres)**

❖ **Add/Drop: 2024 April 29\*, 30 April & 3 May 2024 (all centres) (\*only at CRC)**

❖ **Final Withdrawal date: 2024 June 04**

Re-registration and Add/Drop sessions are to be conducted as in person face-to-face sessions. Counselling will be available face-to-face at CRC and KRC. Online counselling will be available for all other centres and contact RO or AD of particular centre to obtain this service.

**Additional important information will be conveyed via the faculty web page and/ or MyOUSL.**

### Applying for the Final Examination

In order to sit for the Final Examination of courses, students should register online for the Final Examination. Any student, who wishes to change to a different Examination Centre, should inform the Examination Division in advance. The sitting for CAT Examinations and Final Examinations overseas **is not available** for the students in the academic year 2023/2024.

### Applying for Awards

In order to receive an award (Certificate/ Diploma/ Higher Diploma/ Degree), students should request through their MyOUSL accounts.

# Content

# Common Information Related to Revisions of Curricula

This chapter presents common information related to completing award requirements under Revised Curricula

The Faculty of Engineering Technology has revised the curricula of all Programmes of Study in order to comply with the Sri Lanka Qualification Framework (SLQF).

Following are the Study Programmes that were revised:

- Bachelor of Technology Honours in Engineering with intermediate qualification of Higher Diploma
- Bachelor of Industrial Studies Honours with intermediate qualification of Higher Diploma
- Bachelor of Software Engineering Honours with intermediate qualification of Higher Diploma

Certificate in Industrial Studies in Apparel Technology was upgraded to Advanced Certificate in Apparel Technology.

The curricula that comply with the SLQF are designated as **Revised Curricula (RC)** and the curricula that were offered in the academic year 2017/18 are called **Interim Curricula (IC).** The curricula offered before the academic year 2017/18 are identified as **Old Curricula (OC).**

The Faculty has implemented the Revised Curricula by introducing levels 3 and 4 courses in the academic year 2019/20, and levels 5, 6, and 7 courses in the academic year 2020/21. The awards under the Revised Curricula are given from the academic year 2020/21.

## Completing the award requirements under the Revised Curricula

The students, who consider completing the award requirements under RC, need to make note of the following.

- The last academic year for students to receive the awards under IC is 2022/23. The students who cannot complete the awards at the end of 2022/23, are required to transfer to the RC in the academic year 2023/24.
- The respective courses completed under the IC are considered alternative course/s to courses (at levels 3 and 4) of the RC up to the academic year 2024/2025. However, (MHZ3531 and MHZ3332), DMK3270 and DMX3511 are converted to relevant courses of the RC.
- Levels 5 and 6 courses of IC completed by the students are converted to the equivalent course/s of the RC after the academic year 2022/2023.

All students coming for re-registration may seek in-person or online counselling. Academic counselling is highly recommended for those students who seek to complete the Bachelor of Science Honours in Engineering,

The students who aspire to obtain awards under Revised Curricula are requested to refer to the **Student Guidebook 2023/2024**, which is available in the Faculty website. In some cases, the students may not fully fulfil the compulsory courses of the RC, despite the courses of the IC being converted or being considered as alternative courses to those of RC. Therefore, it is very important that the students aspiring to receive awards under RC, be familiar with the curriculum of RC including the compulsory courses for the specialisation and the category-wise and level-wise minimum credits requirements.

Students cannot claim credits for both Interim Curriculum Course/s and the equivalent Courses of the Revised Curriculum that are considered to be mutually exclusive courses. A list of IC Course/s mapped with RC Course/s in respect of all Study Programmes is given in the Annex.

# Study Programme Common Information

### Structure of the Curricula

The curricula of all study programmes of the Faculty of Engineering Technology ensure that the student receives an academically as well as professionally recognised qualification in a particular field. However, it still allows the student to structure the subject combinations and total duration of study to suit individual needs. To gain a qualification a specific course combination stipulated for a particular specialisation needs to be fulfilled.

### Courses

The fundamental entity in the dissemination process of knowledge is known as a **Course,** which in general sense is known as a **Subject**.

### Course Categories

Each course is classified into one of the Course Categories denoted by specific letters as given below.

| Engineering | X |
|---|---|
| Engineering projects | Y |
| Mathematics | Z |
| Industrial | I |
| General | J |
| Computer literacy | K |
| English | E |
| Management | M |
| Industrial Training | W |

### Course Levels

Each Course is also assigned a "SLQF Level", between one (1) and ten (10). The Level indicates the relative complexity of the course content. SLQF Levels 1 and 2 comprise the certificate programmes. SLQF Levels 3 to 7 are different stages in undergraduate study programmes leading to Higher Diploma and Honours Degree qualifications. Finally, the courses of postgraduate programmes are placed at Levels 7, 8, 9 and 10.

### Credit Rating of a course

The Credit Rating assigned for a Course reflects the amount of time an average student is expected to devote for its study.

Total effective time expected to be spent by an average student for a course with a Credit Rating of one (1) is about 50 notional hours, but for Project and Training courses it is about 100 notional hours. The credit rating of a course is denoted by the fifth character in the Course Code.

*Example: The course MHZ3551 has a Credit rating of 5, which requires about 250 notional hours of learning during the academic year.*

### Course Codes

Each course is assigned with a code consisting of seven letters and numbers. The Course Code comprises of sub codes to denote the Department that offer the course, Course Category, SLQF Level, Credit Rating and the serial number of the course assigned by the Department.

The codes allocated for the Departments of the Faculty are as follows:

| Department/Faculty | Code |
|---|---|
| Agricultural and Plantation Engineering | AG |
| Civil Engineering | CV |
| Electrical and Computer Engineering | EE |
| Mathematics and Philosophy of Engineering | MH |
| Mechanical Engineering | DM |
| Textile and Apparel Technology | TA |
| Faculty of Engineering Technology | FD |

Following are the codes for two Departments of the Faculty of Humanities and Social Sciences which offer certain courses for the study programmes of the Faculty of Engineering Technology.

| Department | Code |
|---|---|
| English Language Teaching | LT |
| Legal Studies | LL |

*Example:  Course Code CVX7640*

  *CV -  Department of Civil Engineering*
  *X –    Engineering Course Category*
  *7 –     SLQF level*
  *6 –     Credit Rating*

*40 – Serial Number assigned by the Department for the course*

The fifth character indicates the Credit Rating from 1 to 9. Credits values from 10 onwards are indicated by letters; A, B, C, ...... Z.

### Study Programmes

Study Programmes are made up of different course combinations. For the award of a qualification through a programme such as Advanced Certificate, Diploma, Higher Diploma, Degree or Honours Degree, three major considerations need to be fulfilled:

- A total stipulated number of Course Credits required for an award should be acquired, while fulfilling the minimum requirements at different Levels.
- Minimum stipulated number of Category Credits required for an award should be fulfilled by the student under each Course Category at identified Levels.
- In order for the student to qualify in a Particular Field of Study, (e.g. Civil, Mechanical, Electrical, etc.), the list of Compulsory Courses required for an award in that field of study should also be satisfied.

The pathways to fulfil the Industrial Training requirements (W category courses) for the award is given in **Annex 1**.

### Assessment

The Overall Assessment Mark (Z%) of a student in respect of any course is based on the Overall Continuous Assessment Mark (X%) and the mark obtained at the Final Examination (Y%), and is computed as follows. In order to sit for the Final Examination, X should be greater than or equal to 40%.

$$Z = 0.5*X + 0.5*Y, \text{ if } Y \geq 40$$
$$Z = Y, \text{ if } Y < 40$$

This criterion is not applicable for industrial training courses.

Each student who faces the Final Evaluation of a course will be awarded a grade and a corresponding Grade Point Value, as given in the following Table based on the Overall Assessment Mark (Z%).

| Grade | Grade Point Value |
|-------|-------------------|
| A+ | 4.00 |
| A | 4.00 |
| A- | 3.70 |
| B+ | 3.30 |
| B | 3.00 |
| B- | 2.70 |
| C+ | 2.30 |
| C | 2.00 |
| C- | 1.70 |
| D+ | 1.30 |
| D | 1.00 |
| E | 0.00 |

### Performance Ranking

The performance of a student for degree study programmes are ranked based on Grade Point Average (GPA). The method of computing GPA is given under the description of each study programme in Section 3.

A student who achieves a Cumulative GPA above a certain value and satisfy other conditions as determined by the Faculty is included in the Dean's List for each academic year.

### Fees for Study Programmes

Unlike the other national universities in Sri Lanka, the OUSL does charge fees from its students. This is related to the fact that prospective students could gain admission to study programmes after fulfilling the minimum entry requirements and the OUSL was set up primarily to cater to the needs of employed students.

However, the Government or the University has no intention of recovering the full cost of education from the students and major part of the cost of any study programme is borne by the State. As of today, the income from fees meets only a fraction of the total expenditure of the University. The Government, by grants disbursed through the University Grants Commission, meets the major component of the total expenditure. The fees payable by a student includes, registration fee, facilities fee, exemption fee (where applicable), library facility fee, tuition fee, etc.

The fees applicable for the academic year

2023/2024 are as follows:

| Type of Fee | Certificate, Diploma and Degree Programmes (Rs.) | Postgraduate Programmes (Rs.) |
|---|---|---|
| Registration | 500 | 1,500 |
| Facilities | 2,500 | 2,500 |
| Library Facility | 100 | 200 |
| Instrument usage fee (one time only) | 12500 (Except for Certificate Programme) | - |
| Exemption | 300 per credit | |
| Tuition fee | Depends on the Course Level | |

Tuition fee applicable for the academic year 2023/2024, on the Bachelor of Science Honours, and the Bachelor of Industrial Studies Honours programmes are given in the table below.

| Course at SLQF Level | Tuition fee per Credit (Rs.) | Training courses (Rs.) |
|---|---|---|
| 3 and 4 | 1980 | 3300 |
| 5, 6 and 7 | 3070 | 5500 |

Students registering for the courses TAI3270 Fashion Illustration I and TAI4373 Fashion Illustration II conducted by the Department of Textile and Apparel Technology are required to pay an additional sum of Rs. 1,725 per Course.

The students registering for the course CVX5440 Surveying II conducted by the Department of Civil Engineering are required to pay an additional sum of Rs. 10,500 for participation at the residential survey camp.

*These rates are liable to be revised.*

All students who submit online applications will receive two vouchers; one for the main Faculty Programme (first instalment) and the other for the StART@OUSL programme. When you come for the registration you need to bring the university copies of two payment receipts for vouchers after both payments have been made. The course material for the first dispatch (first part of the course material) will be issued at the registration.

The second instalment voucher (amount of which will be based on course credits registered by the student) will be sent in due course. When you come to collect the course material for the second dispatch you have to produce the payment receipt for this second instalment voucher.

**Scholarships**

The University has a limited number of bursaries, including University Bursaries, Dean's list and Mahapola Scholarships to help students who are in need of financial support.

# Study Programme Details

This Section describes in detail the following Programmes of Study conducted by the Faculty of Engineering Technology.

Extract from the "SRI LANKA QUALIFICATION FRAMEWORK (SLQF)" published by the University Grants Commission, 2015, on qualification Levels are reproduced in the table below;

| SLQF Level | Qualification Awarded |
|:---:|:---|
| 12 | Doctor of Philosophy/Doctor of Letters/Doctor Science |
| 11 | Master of Philosophy |
| 10 | Master with course work and a research component |
| 9 | Masters by course work |
| 8 | Postgraduate Diploma |
| 7 | Postgraduate Certificate |
| 6 | Bachelors Honours |
| 5 | Bachelors |
| 4 | Higher Diploma |
| 3 | Diploma |
| 2 | Advanced Certificate (G.C.E. A/L or equivalent) |
| 1 | Certificate (G.C.E. O/L or equivalent) |

# Degree of Bachelor of Science Honours in Engineering Study Programme

**Aim of the Study Programme**

The aim of the Study Programme is to provide an access, for the right candidates, to an educational system composed with outstanding and up-to-date academic content delivered within a well-planned curriculum framework and course syllabi with a provision for high flexibility in course selection, facilitating the focus on emerging subject areas in the industry, that will disseminate essential knowledge and skills in a wide range of engineering disciplines, and most suited for open distance learning pedagogy. The study Programme also gives due consideration to the social and environmental impacts and prepare the students to undertake postgraduate studies and research as career options.

**Study Programme Educational Outcomes**
To produce competent engineers;

- With up-to-date knowledge and expertise in their own specialty areas and acquired ingenuity to address engineering problems with holistic approach with due consideration to environment and society.

- With inspiration to be leaders in the advancement of their specialty areas of engineering by engaging in continuous professional development, research and scholarship

**Degree of Bachelor of Science Honours in Engineering - Study Programme**
The Bachelor of Science Honours in Engineering degree is designed carefully according to the requirements of the Sri Lanka Qualification Framework (SLQF), specifying minimum and maximum limits for each category of courses, to ensure that the programme is balanced, and it meets the academic requirements of professional Engineering bodies, both in Sri Lanka (The Institution of Engineers, Sri Lanka - IESL) and overseas.

The Faculty expects a student who is awarded the Bachelor of Science Honours in Engineering degree to be able to:
- Develop creative and analytical ability and innovative thinking in engineering,
- Address social, environmental and economic issues related to engineering and
- Access and utilise engineering knowledge for the benefit of the society.

It is also possible for a student to obtain a Higher Diploma in an approved Technology discipline after successful completion of a required combination of courses and Credit requirements. The Higher Diploma is one of the main avenues to enter middle-level technical grades within the engineering disciplines.

The Faculty expects a student who has been awarded the Higher Diploma in Technology to be:
(a) Competent in the application of the well-known principles of engineering technology,
(b) Aware of social, environmental and economic issues related to technology and
(c) Self-motivated and capable of furthering career advancement

**Duration**
The minimum duration of the Honours Degree programme, starting from level 3, is 5 academic years, and the maximum number of academic years a student can spend to complete the degree programme is three times the minimum and is fifteen (15) academic years.

**Medium of instruction**
The medium of instruction of the study programme is the language of English.

### Areas of Specialisation

The degree of the Bachelor of Science Honours in Engineering is available in the following specialisations.

1) Agricultural Engineering
2) Civil Engineering
3) Computer Engineering
4) Electrical Engineering
5) Electronic and Communication Engineering
6) Mechanical Engineering
7) Mechatronics Engineering
8) Textile and Clothing Engineering

### Eligibility for Admission

A person seeking admission to the programme leading to the award of the Degree of Bachelor of Science Honours in Engineering shall be required to have at least fulfilled one of the following:

3  Obtained passes for all subjects of the Physical Science Stream, (Combined Mathematics, Physics and Chemistry) at the General Certificate of Education (Advanced Level) (GCE A/L) Examination, at one and the same sitting or

4  Obtained the Advanced Certificate in Science with Courses in the disciplines of Mathematics, Physics and Chemistry, offered by The Open University of Sri Lanka or

5  Obtained a minimum of three (3) credit (C) passes for Mathematics, Physics and Chemistry in Cambridge/Edexcel Advanced Level Examination within three years  or

6  Obtained an equivalent or higher qualification acceptable to the Senate of the University.

### Recognition for the Associate Membership of the Institution of Engineers, Sri Lanka (IESL)

Faculty of Engineering Technology has been successful in the renewal of the professional recognition by the Institution of Engineers, Sri Lanka (IESL), for six specializations of the Degree of Bachelor of Science Honours in Engineering.

The recognition of the Degree by the IESL permits graduates to obtain the Associate Membership of the IESL, and later become Charted Engineers after fulfilling professional review requirements laid down by the IESL. Also, the IESL membership is required by an Engineer to secure appropriate level of registration at the Engineering Council of Sri Lanka (ECSL) to lawfully practice Engineering in this country.

However, the direct IESL recognition is only available for graduates who have surpassed the benchmark of being successful at the GCE (A/L) Examination with at least 2 Credit passes and 1 Simple pass in the Physical Science Stream (Combined Mathematics, Physics, and Chemistry), at one and the same sitting, if they have embarked in their undergraduate study on or after 2018 May.

### Requirements for the award of the Degree

In order for a student to qualify for the award of the Degree of Bachelor of Science Honours in Engineering, such student has to fulfil the following requirements, within a maximum period of 12 academic years (on the rule that stipulates maximum period allowed is three times the minimum period of 4 years).

(1) Successful completion of all compulsory courses for the selected engineering specialisation,
and
(2) Fulfil the level-wise and category-wise course credits as given in the Table 1.

**Table 1 - Course credits requirements for the Award of Bachelor of Science Honours in Engineering Degree**

| Category | Denoted | Minimum credits | Maximum credits |
|---|---|---|---|
| Engineering | X | 90<br>Subject to a minimum of 40 at Level 5 or above, of which at least 20 at Level 6 or above | 95<br>Subject to a minimum of 40 at Level 5 or above, of which at least 20 at Level 6 or above |
| Engineering projects | Y | 9<br>of which at least 8 at Level 6 or above | 14<br>of which at least 8 at Level 6 or above |
| Mathematics | Z | 20<br>subject to a minimum of 5 at Level 5 or above | 25<br>subject to a minimum of 5 at Level 5 or above |
| General /Humanities | J | 5 | 10 |
| Management | M | 15<br>Subject to a minimum 10 at Level 5 or above | 20<br>Subject to a minimum 10 at Level 5 or above |
| Industrial Training | W | 8 | 8 |
| Total | | 152<br>Subject to a minimum of 75 at Level 5 or above, of which at least 30 at Level 6 or above | |

Requirements for the award of the Higher Diploma

A student could obtain Higher Diploma in an approved technology discipline as an intermediate award. In order to qualify for the award of Higher Diploma, a student has to meet the following requirements.

(1) Successful completion of all compulsory courses at levels 3 and 4 for the selected engineering specialisation, and
(2) Fulfil the level-wise and category-wise minimum course credits as given in Table 2.
(3) Pass all Level 3 and 4 Compulsory courses, excluding Engineering Mathematics III (MHZ4553).

**Table 2- Course credits requirements for the Award of the Higher Diploma in an approved discipline**

| Category | Denoted | Minimum credits | Maximum credits |
|---|---|---|---|
| Engineering | X | 45<br>Subject to a minimum of 20 at Level 4 or above | 50<br>Subject to a minimum of 20 at Level 4 or above |
| Engineering projects | Y | 1 at Level 4 | 4 at Level 4 |
| Mathematics | Z | 10 | 15 |
| General /Humanities | J | 0 | 5 |
| Management | M | 5 at Level 3 or 4 | 10, subject to 5 at Level 3 or 4 |
| Industrial Training | W | 8 | 8 |
| Total | | 74<br>Subject to a minimum of 30 at Level 4 (Minimum no of Compulsory courses) | |

### Grade Point Average (GPA)

The GPA is computed by considering the courses at levels 4, 5, 6 and 7 totalling to 90 credits. In selecting the courses for 90 credits the following sequence will be followed.

(1) Compulsory Courses at Levels 5, 6 and 7

(2) Non-compulsory Courses at Levels 5, 6 and 7 with the higher GPVs.

(3) Compulsory courses at level 4 with the higher GPVs.

In a situation, where exactly ninety (90) credits cannot be obtained, the courses are selected to the nearest value below ninety (90), and the remainder credit is taken as a Part Credit of the next course. However the Industrial Training courses are not considered when calculating the GPA.

The Grade Point Average (GPA) is computed as follows:

$$GPA = \frac{\left\{\sum (CreditRating of the Course) * (GPV)\right\} + (PartCredit of the Course) * (GPV)}{90}$$

### Limits for Exemptions

Notwithstanding any exemptions granted for prior qualifications, a student shall acquire, by successful completion in accordance with the Scheme of Assessment, a minimum number of Credits as shown below for the awards.

**For the Degree:**

Minimum Credit requirements a student shall acquire by successful completion in accordance with the Scheme of Assessment for the award of the Honours Degree are as given below.

1. Level 7 (considering all Categories): 10
2. Level 7 (considering X and Y categories): 7
3. Levels 5, 6 and 7 (considering all Categories): 38
4. Levels 5, 6 and 7 (considering X, Y and Z Categories): 27
5. Total (considering all Categories and all levels from 3 to 7): 76

**For the Higher Diploma:**

Minimum Credit requirements a student shall acquire by successful completion in accordance with the Scheme of Assessment for the award of the Higher Diploma are as given below.

6. Level 4 (considering all Categories): 15
7. Level 4 and above (considering X and Y Categories): 11
8. Total (considering all Categories and all levels from 3 to 7): 37

A list of qualifications for which exemptions could be claimed is given later in this document.

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*Students are required to apply in a prescribed form after completing the award requirements to receive the Higher Diploma or the Degree*

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### Curricula for different specialisations

The curriculum of the Programme of Study leading to the awards of Bachelor of Science Honours in Engineering degree and the Higher Diploma has been revised to comply with the Sri Lanka Qualification Framework and professional recognition needs.

This Section gives the combination of courses for the specialisations of the Bachelor of Science Honours in Engineering Degree.

### Special notes applicable for all specialisations

Engineering Mathematics (Z) and General (J) Category courses have to be selected from the following list if not included in the compulsory lists for specialisations, in order to meet Z and J Category Course Credit requirements.

| Courses (Revised Curriculum) | | Pre-requisites |
|---|---|---|
| MHZ3551 | Engineering Mathematics I | None |
| MHZ3552 | Engineering Mathematics II | None |
| LLJ3245 | Introduction to Laws of Sri Lanka | None |
| MHZ4553 | Engineering Mathematics III | MHZ3551(CA), MHZ3552(CA) |
| MHJ4241 | History of Technology | Pass in 20 credits |
| MHZ5554 | Engineering Mathematics IV | MHZ3551(P), MHZ3552(P), MHZ4553(CA) |
| MHZ5355 | Discrete Mathematics | MHZ3551(P) |
| MHJ5342 | Technology, Society and Environment | Pass in 45 credits |
| MHJ5343 | Nature of Science | Pass in 45 credits |

**Important Notes**

o **Maximum number of credits per academic year and General pre-requisites**

Maximum number of credits a student can register at the Open University of Sri Lanka per academic year is 38.

o **General (J) and Management (M) category courses**

The courses listed under specializations do not include General (J) and Management (M) category courses, and these have to be selected from the Table given below to meet the minimum credit requirements in those course categories.

All the courses of IC have now been discontinued. Therefore, students need to register for the alternative course given in the second column (RC courses).

| Course (IC) | Alternative Course (RC) | Prerequisite |
|---|---|---|
| LLJ3360 Introduction to laws of Sri Lanka | LLJ3245 Introduction to Laws of Sri Lanka | None |
| None | MHJ4241 History of Technology | Pass in 20 credits |
| MHJ5531 The nature of science | MHJ5343 Nature of Science | Pass in 45 credits |
| MHJ5533 Technology, society and environment | MHJ5342 Technology, Society and Environment | Pass in 45 credits |
| DMM5836 Management for engineers *(Last offered in 2020/21)* | AGM4307 Economics and Marketing for Engineers | Pass in 18 credits |
| | CVM5401 Accounting for Engineers | AGM4307(P) |
| | DMM6601 Management for Engineers | CVM5401(CA) |
| TAM5861 Textile management and merchandising *(Last offered in 2020/21)* | None | None |

o **Non-compulsory (Elective) Courses**

The students enrolled until the academic year 2017/18 had the provision to register for courses from the "Complete List of Courses" of the Faculty to fulfil the *slack* of a given specialisation. In the RC, recommended elective courses are provided from which the student has to choose courses for the *slack*.

The students who have already completed courses (CA or P) outside the list of recommended courses can count the credits for such courses despite receiving the awards under IC or RC. Now the students are allowed to register only for the courses selected from the recommended elective courses. However, those courses that have been already completed may be considered towards the credit requirements.

o **Industrial Training Modules**

Industrial training modules under the IC are replaced with equivalent Industrial Training Courses under the RC from the academic year 2019/20. After the academic year 2022/23, all the Industrial training modules will be converted to equivalent Industrial Training Courses where possible.

o **Fulfilment of Category Credits and Compulsory Courses under RC**

The students who aspire to receive awards under the RC need to register for the following courses, except under the conditions mentioned in the **'Remarks'** column of the following Table, to fulfil category-wise credit requirements and compulsory course requirements for awards under RC.

| Course (RC) | Prerequisites | Remarks |
|---|---|---|
| EEX3417 Software Development for Engineers | DMX3511(P) OR AGM3203(CR) | Exemption will be granted for an equivalent course in Interim Curriculum |
| CVY4185/EEY4181/EEY4182/EEY4183/ DMY4101/DMY4102/TAY4181 Group Project | As decided by the department of study | CVY4185 is compulsory only for the awards of Higher Diploma in Civil Technology |
| AGM4307 Economics and Marketing for Engineers | Pass in 18 credits in Level 3 | if not completed DMM5836 |

The following pages give the courses for different specialisations for meeting the award requirements under RC

# Curriculum for Agricultural Engineering Specialisation

## Compulsory courses

| Course | | Pre-requisites |
|---|---|---|
| **Level 3** | | |
| AGX3201 | Basic Biology | None |
| CVX3340 | Introduction to Hydraulics & Hydrology | DMX3401 (CR), MHZ3551 (CR) |
| EEX3410 | Introduction to Electrical Engineering | MHZ3552 (CR) |
| EEX3417 | Software Development for Engineers | AGM3203 (CR) |
| EEX3351 | Electronics I | EEX3410 (CR) |
| DMX3401 | Fluid Mechanics and Thermodynamics | None |
| DMX3302 | Engineering Mechanics | MHZ3551(CR), MHZ3552(CR) |
| DMX3305 | Introduction to Engineering Design Graphics | None |
| DMX3107 | Workshop Practice | None |
| MHZ3551 | Engineering Mathematics I | None |
| MHZ3552 | Engineering Mathematics II | None |
| AGM3203 | Communication Skills | None |
| **Level 4** | | |
| AGX4404 | Crop Technology | None |
| AGX4405 | Postharvest Engineering and Technology I | None |
| AGX4356 | Soil Science | None |
| CVX4342 | Surveying I | DMX3305(P), MHZ3551(P), MHZ3552(P) |
| DMX4205 | Strength of Materials I | DMX3302(CA), MHZ3551(CA), MHZ3552(CA) |
| AGX4302 | Design of Agricultural Machine Elements | DMX3302(CA), DMX3305 (CA), DMX4205(CR) |
| AGX4376 | Crop Processing Technology | AGX4404(CR) or AGX4405(CR) |
| AGY4180 | Group Project (Agricultural Engineering) | Pass in 15 credits |
| MHZ4553 | Engineering Mathematics III | [MHZ3531(P), MHZ3332(P)] or [MHZ3551(CA), MHZ3552(CA)] |
| AGM4307 | Economics and Marketing for Engineers | Pass in 18 credits in Level 3 |
| **Level 5** | | |
| AGX5206 | Food Science | None |
| AGX5308 | Soil Management Tillage and Traction | AGX4356 (CA) |
| AGX5314 | Engineering Design (Agricultural Engineering) | DMX4205(CA), DMX4307(CA), AGX4302(CA), AGX5511(CR) |
| AGX5510 | Design and Management of Irrigation and Drainage | AGX4356(CA) |
| AGX5511 | Farm Power and Mechanization | DMX4205(CA) |
| MHZ5554 | Engineering Mathematics IV | {[MHZ3551(P), MHZ3552(P)] OR [MHZ3531(P), MHZ3332(P)]}, [MHZ4553(CA) OR MHZ4530 (P)] |
| CVM5401 | Accounting for Engineers | AGM4307(CA) and 30 Cresits(P) |
| **Level 6** | | |
| AGX6180 | Research Methodology and Project Identification (Agricultural Engineering) | 30 credits at Level 4 or above (P) |
| DMM6601 | Management for Engineers | CVM5401 (CA), 60 credits (P) |
| AGX6387 | Plantation Crop Technology | AGX4404 (P) |
| **Level 7** | | |
| AGX7216 | Structural Designs for Commercial Farming | DMX3305(P), MHZ5554(CA) |
| AGX7417 | Agricultural Hydrology | CVX3340(P), AGX4356(P), |
| AGX7418 | Food Engineering | AGX4405 (P) |
| AGX7283 | Groundwater Resources Management | AGX4356(P) |
| AGY7880 | Engineering Research Project (Agricultural Engineering) | Pass in 80 credits including 50 credits Pass in X category courses |
| **Industrial Training** | | |
| AGW4402 | Industrial Training I (Agricultural Engineering) | Pass in 36 credits at level 3 |

| AGW5402 | Industrial Training II(Agricultural Engineering) | AGW4401 (CR), pass in 15 credits at level 4 or above |
|---|---|---|

## Elective courses

| AGX5212 | Postharvest Engineering and Technology II | AGX4405(CA), AGX5206(CR) |
|---|---|---|
| AGX5277 | Food Safety and Quality Management Systems | AGX5206(CR), AGX4405(CA) |
| AGX5415 | Horticultural Landscaping Technology | AGX4404 (CA) |
| AGX5565 | Soil Plant Water Relationship | AGX4356(CA) |
| AGX5309 | Sustainable Agricultural Technology | AGX3201(P), AGX4356(CR) |
| AGX6377* | Precision Agriculture | 68 Credits (P) |
| AGX6284 | Impact of Climate Change on Water Resources | AGX5565(CR) and AGX6283 (CR) |
| AGX6490 | Soil and Water Conservation | AGX4356(P) |
| DMX6302 | Energy, Environment and Sustainability | 75 Credits (P) |
| CVX7350* | Remote Sensing and GIS | none |

*Not offered in 2023/2024

**Special Note:**
Bachelor of Science Honours in Engineering (Agricultural Engineering) will be offered only if adequate number of students (as decided by the Department) are registered for the programme. In the event BScHons in Agricultural Engineering is not offered, those students who have applied will be allowed to register for any other specialisation or study programme provided they possess the required entry qualifications.

# Curriculum for Civil Engineering Specialisation

## Compulsory Courses

| Courses | | Prerequisites |
|---|---|---|
| **Level 3** | | |
| CVX3340 | Introduction to Hydraulics & Hydrology | [DMX3401(CR) OR DMX3512(P)], [MHZ3551 (CR) OR MHZ3531(P)] |
| CVX3441 | Structural Analysis and Design I | [DMX3305(CR) OR DMX3511(P]), [CVX3442 (CR) OR CVX3534(CR)] |
| CVX3442 | Strength of Materials | [MHZ3551(CR), MHZ3552(CR)] OR [MHZ3531(P), MHZ3332(CR)] |
| EEX3410 | Introduction to Electrical Engineering | MHZ3552(CR) OR MHZ332(P) |
| EEX3417 | Software Development for Engineering | AGM3203(CR) OR DMX3511(P) |
| DMX3401 | Fluid Mechanics and Thermodynamics | None |
| DMX3305 | Introduction to Engineering Design Graphics | None |
| DMX3107 | Workshop Practice | None |
| MHZ3551 | Engineering Mathematics I | None |
| MHZ3552 | Engineering Mathematics II | None |
| AGM3203 | Communication Skills | None |
| **Level 4** | | |
| CVX4240 | Hydraulic Engineering I | [CVX3340(P) OR CVX3552(P)], [DMX3401(P) OR DMX3512(P)], [MHZ3551(P) OR MHZ3531(P)] |
| CVX4241 | Engineering Hydrology | [CVX3340(P) OR CVX3532(P)],{ [MHZ3551(P) , MHZ3552(P)] OR [MHZ3531(P), MHZ3332(P)]} |
| CVX4342 | Surveying I | [DMX3305(P) OR DMX3511(P)], {[MHZ3551(P), MHZ3552(P)] OR [MHZ3531(P), MHZ3332(P)]} |
| CVX4343 | Soil Mechanics | [CVX3340(P) OR CVX3532(P)], [CVX3442(P) OR CVX3534(P)] |
| CVX4344 | Engineering Geology | [CVX4343(CR) OR CVX4530(P), [CVX4241(CR) OR CVX3532(P)] |
| CVX4545 | Structural Analysis and Design II | [CVX3441(P) OR CVX3531(P)], [CVX3442(P) OR CVX3534(P)] |
| CVX4446 | Construction Engineering & Materials | [CVX3442(P) OR CVX3534(P), [MHZ3552(P) OR MHZ332(P)], [AGM3203 (P) OR DMX3511 (P)], [DMX3107(CR) OR DMW3001(P)] |
| MHZ4553 | Engineering Mathematics III | [MHZ3551(CA), MHZ3552(CA)] OR [MHZ3531(P), MHZ3332(P)] |
| AGM4307 | Economics and Marketing for Engineers | Pass in 18 credits in Level 3 |
| **Level 5** | | |
| CVX5440 | Surveying II | [CVX4342(P) OR CVX4446(P)],[ CVX4241(P) OR CVX3532(P)], [CVX4344(P) OR CVX5532(P)]. [MHZ4553(P) OR MHZ4530(P)] & Pass in additional 30 credits in X Category, subjected to a minimum of 16 at Level 4 or above. |
| CVX5241 | Hydraulic Engineering II | [CVX4240(P), CVX4241(P)] OR CVX3532(P) |
| CVX5242 | Mechanics of Fluids | [CVX4240(P), CVX4241(P)] OR CVX3532(P) |
| CVX5443 | Structural Analysis | [CVX4545(P) OR CVX4531(P)], [MHZ4553(P) OR MHZ4530(P)] |
| MHZ5554 | Engineering Mathematics IV | {[MHZ3551(P), MHZ3552(P)] OR [MHZ3531(P), MHZ3332(P)]},[MHZ4553(CA) or MHZ4530(P)] |
| CVM5401 | Accounting for Engineers | AGM4307(CA) and 30 Cresits(P) |
| **Level 6** | | |
| CVX6444 | Geotechnics | CVX4343 (P) OR CVX4530 (P) |
| CVX6345 | Environmental Engineering | [CVX3340(P) OR CVX3532(P)], {[CVX4240(P), CVX4241(P)] OR [CVX5531 (P)]} |
| CVX6546 | Construction Engineering and Management | [CVX4446(P) OR CVX4532(P)], [CVX4545(P) OR CVX453 (P)] |

| CVX6180 | Research Methodology and Project Identification (Civil Engineering) | None |
|---|---|---|
| DMM6601 | Management for Engineers | CVM5401(CA), 60 credits (P) |
| CVW6803 | Industrial Training (Civil - Undergraduate) | [MHZ5554(P) OR MHZ5530(P)], [CVX5440(P) OR CVX5530(P)], {[CVX5241(P), CVX5242(P)] OR [CVX5531(P)]}, [CVX5443(P) OR CVX5533(P)], Eligibility in 21 credits at level 5 or above |
| **Level 7** | | |
| CVX7640 | Structural Design | [CVX5443(P) OR CVX5533(P)], [CVX4545 (P) OR CVX4531 (P)] |
| CVX7241 | Geotechnical Design | [CVX6444(P) OR CVX6530(P)] |
| CVX7242 | Environmental Engineering Design | [CVX6345(CR) OR CVX6533(P)] |
| CVY7880 | Engineering Research Project (Civil) | Pass in 100 credits including: 70 credits Pass in X category courses, CVX6180(P) |
| CVY7385 | Comprehensive Design Project (Civil) | Pass in 100 credits including: 70 credits Pass in X category courses, [CVX7640(CR) OR CVX6832(P)], [CVX7241(CR) OR CVX6530(P)], [CVX7242(CR) OR CVX 6533 (P)] |

## Elective Courses

| Courses | | Prerequisites |
|---|---|---|
| *CVX4347 | Irrigation Engineering | CVX3340(P) OR CVX3532 (P) |
| CVX4348 | Water and Wastewater Engineering | CVX3340 (P) OR CVX3532 (P) |
| CVX4349 | Building Engineering | [DMX3305(P) OR DMX3511 (P)], [EEX3410 (P) OR EEX3510 (P)], [CVX4446 (CR) OR CVX4532 (P)] |
| CVX4350 | Quantity Surveying | [CVX4342(CR) OR CVX3533 (P)], [CVX4446(CR) OR CVX4532(P)] |
| **CVY4185 | Group Project | {[MHZ3551(P), MHZ3552(P)] OR [MHZ3531(P), MHZ3332(P)]}, [DMX3305(P) OR DMX3511(P)], [CVX3340(P) OR CVX3532(P)], [CVX3441(P) OR CVX3531(P)], [CVX3442(P) OR CVX3534(P)], [CVX4343(CR) OR CVX4530(P)], [CVX4545(CR) OR CVX4531(P)], [CVX4446(CR) OR CVX4532(P)] |
| CVW4802 | Industrial Training | {[MHZ3551(P), MHZ3552(P)] OR [MHZ3531(P), MHZ3332(P)] , EEX3417(P), [DMX3401(P) OR DMX3512(P)], [EEX3410(P) OR EEX3510(P)], {[DMX3305(P), AGM3203(P)] OR DMX3511(P)]}, [CVX3340(P) OR CVX3532(P)], [CVX3441(P) OR CVX3531(P)], [CVX3442(P) OR CVX3534(P)], Eligibility in 20 credits at level 4 or above |
| CVX7343 | Bridge Engineering | [CVX7640 (CR) OR CVX6832 (P)] |
| CVX7344* | Computational Mechanics using Finite Element Methods | [CVX7640 (CR) OR CVX6832(P)] |
| CVX7345 | Highway Engineering and Design | [CVX4343 (P) OR CVX4530 (P)], [CVX4446 (P) OR CVX4532 (P)], [CVX5440 (P) OR CVX5530 (P)] |
| CVX7346 | Ground Improvement Techniques | [CVX4343(P) OR CVX4530(P)], [CVX6444 (P) OR CVX6530(P)] |
| CVX7347* | Applied Engineering Geology and Rock Mechanics | [CVX4344(P) OR CVX5532(P)] , [CVX6444 (P) OR CVX6530(P)] |
| CVX7348* | Coastal Engineering and Coastal Zone Management | [CVX5242(P) OR CVX5531(P)], [MHZ5554 (P) OR MHZ5530 (P)], [CVX6345 (CR) OR CVX6533(P)] |
| CVX7349 | Environmental Modelling and Management | [CVX5242(CA) OR CVX5531(P)], {[CVX6345(CA), CVX7242(CR)] OR CVX6533(P)} |
| CVX7350* | Remote Sensing and GIS | None |

*Not offered in 2023/2024 **Compulsory for Higher Diploma

# Curriculum for Computer Engineering Specialisation

## Compulsory Courses

| Course | | Prerequisites |
|---|---|---|
| **Level 3** | | |
| EEX3331 | Electrical Measurements and Instrumentation | EEX3510(P) OR EEX3410(CR) |
| EEX3336 | Communications and Computer Technology | DMX3511(P) OR AGM3203(CR), EEX3510(P) OR EEX3410(CR), EEX4547(P) OR EEX3517(P) OR EEX3417(CR), EEX3530(P) OR EEX3350(P) OR EEX3351(CR) |
| EEX3351 | Electronics I | EEX3510(P) OR EEX3410(CR) |
| EEX3410 | Introduction to Electrical Engineering | MHZ3531(P) OR MHZ3552(CR) |
| EEX3417 | Software Development for Engineers | DMX3511(P) OR AGM3203(CR) |
| DMX3401 | Fluid Mechanics and Thermodynamics | None |
| DMX3305 | Introduction to Engineering Design Graphics | None |
| DMX3107 | Workshop Practice | None |
| MHZ3551 | Engineering Mathematics I | None |
| MHZ3552 | Engineering Mathematics II | None |
| AGM3203 | Communication Skills | None |
| **Level 4** | | |
| EEX4331 | Circuit Theory and Design | EEX3510(P) OR EEX3410(CA), [MHZ3531(P), MHZ3332(P)] OR [MHZ3551(CA), MHZ3552(CA)] |
| EEX4332 | Electrical Power | EEX3510(P) OR EEX3410(CA), MHZ3531(P) OR MHZ3551(CA) |
| EEX4435 | Data Structures and Algorithms | EEX3533(P) OR EEX3517(P) OR EEX3417(CA) OR EEX4547(P), MHZ3531(P) OR MHZ3551(CA), DMX3511(P) OR AGM3203(CA), Pass in 15 credits at level 3 |
| EEX4347 | Software Engineering Concepts | EEX3533(P) OR [EEX3517(P) OR EEX3417(CA), EEX3336(CA)], DMX3511(P) OR AGM3203(CA), Pass in 15 credits at Level 3 |
| EEX4436 | Microprocessors and Interfacing | MHZ3531(P) OR MHZ3551(P), DMX3511(P) OR AGM3203(P), [EEX3533(P) OR (EEX3336(P), EEX3517(P) OR EEX3417(P)), [EEX3350(P) OR EEX3351(P), EEX4350(P) OR EEX4351(CR)] OR EEX3530(P) OR DMX3572(P) OR DMX3574(P) OR DMX3304(P) |
| EEX4351 | Electronics II | EEX3510(P) OR EEX3410(P), EEX3350(P) OR EEX3351(CA), MHZ3531(P) OR [MHZ3551(P), MHZ3552(CA)], DMX3511(P) OR AGM3203(P) |
| EEY4181 | Group Project (Computer Engineering) | Pass in 30 credits |
| EEW4301 | Industrial Training (Electronics) | EEX4350(P) OR EEX3530(P) OR EEX4351(CR), Pass in 36 credits at Level 3 |
| MHZ4553 | Engineering Mathematics III | [MHZ3531(P), MHZ3332(P)] OR [MHZ3551(CA), MHZ3552(CA)] |
| AGM4307 | Economics and Marketing for Engineers | Pass in 18 credits at Level 3 |
| **Level 5** | | |
| EEX5434 | Data Communications & Networking | EEX3533(P) OR EEX3336(P), EEX3510(P) OR EEX3410(P), [MHZ3531(P), MHZ3332(P)] OR [MHZ3551(P), MHZ3552(P)], DMX3511(P) OR AGM3203(P) |
| EEX5335 | Operating Systems | MHZ5340(CA) OR MHZ5355(CR), EEX4535(P) OR EEX4435(CA), EEX4536(P) OR EEX4436(CA), EEX5536(CR), Pass in 36 credits at Level 3 |
| EEX5536 | Computer Architecture | EEX3533(P) OR EEX4547(P) OR [EEX3517(P) OR EEX3417(P), EEX3336(P)], EEX3530(P) OR EEX3350(P) OR EEX3351(P), [MHZ3531(P), MHZ3332(P)] OR MHZ4553(P), EEX4536(P) OR EEX4436(CA), Pass in 30 credits |
| EEX5346 | Embedded Systems | EEX4547(P) OR EEX3517(P) OR EEX3417(P), |

| | | EEX3533(P) OR EEX3336(P), [EEX3350(P) OR EEX3351(P), EEX4350(P) OR EEX4351(CA)] OR EEX3530(P), EEX4536(P) OR EEX4436(CA), EEX5535(P) OR EEX5335(CR) OR EEX5564(CR) OR EEX5536(CR), MHJ5533(P) OR MHJ5342(CR) |
|---|---|---|
| EEX5351 | Digital Electronic Systems | EEX3510(P) OR EEX3410(P), EEX3533(P) OR EEX4547(P) OR [EEX3517(P) OR EEX3417(P), EEX3336(P)], EEX4350(P) OR EEX3530(P) OR EEX4351(P), MHZ3531(P) OR MHZ3551(P), DMX3511(P) OR AGM3203(P), EEX4536(P) OR EEX4436(CA) |
| EEX5360 | Signals and Systems | EEX3533(P) OR EEX3336(P), MHZ4530(P) OR MHZ4553(CR), [MHZ3531(P), MHZ3332(P)] OR [MHZ3551(P), MHZ3552(P)] |
| EEX5270 | Information Security | MHZ3531(P) OR MHZ3551(P), EEX4547(P) OR EEX3517(P) OR EEX3417(P), EEX4535(P) OR EEX4435(P), 30 credits pass at Level 3 |
| MHZ5554 | Engineering Mathematics IV | {[MHZ3551(P), MHZ3552(P)] OR [MHZ3531(P), MHZ3332(P)]}, [MHZ4553(CA) OR MHZ4530 (P)] |
| MHZ5355 | Discrete Mathematics | MHZ4340(P) OR MHZ4256(P) OR MHZ3551(P) |
| MHJ5342 | Technology, Society and Environment | 45 credits pass |
| CVM5401 | Accounting for Engineers | AGM4307(CA), 30 credits pass |
| EEW5501 | Industrial Training (Computer) | EEW3001(P) OR EEW3590(P) OR EEW4301(CR), EEX4547(P) OR EEX4537(P) OR EEX4347(P), 65 credits pass |
| **Level 6** | | |
| EEX6335 | Compiler Design | DMX3511(P) OR AGM3203(P), EEX4535(P) OR EEX4435(P), EEX5536(CA), MHZ4340(P) OR MHZ4256(P) OR MHZ3551(P), MHZ5340(P) OR MHZ5355(P) |
| EEX6236 | Advanced Computer Architecture | MHZ4530(P) OR MHZ4553(P), EEX4536(P) OR EEX4436(P), EEX5535(P) OR EEX5335(CA), EEX5536(CA), 60 credits pass |
| EEX6181 | Research Methodology and Project Identification (Computer Engineering) | Pass in 60 credits, EEX5335(CA) OR EEX5535(P), EEX5536(CA), EEX4435(P) OR EEX4535(P) |
| DMM6601 | Management for Engineers | CVM5401(CA), 60 credits(P) |
| EEM6201 | Professional Practice | Pass in 36 credits at level 3, Pass in 24 credits at level 4 or above |
| **Level 7** | | |
| EEX7436 | Processor Design | EEX6351(P) OR EEX6830(P) OR EEX5351(CA), EEX5536(CA), EEX3533(P) OR EEX4547(P) OR [EEX3517(P) OR EEX3417(P), EEX3336(P)], DMX3511(P) OR AGM3203(P), MHZ3550(P) OR MHZ3551(P), EEX4536(P) OR EEX4436(P) |
| EEX7337 | System Design in Groups | EEX4435(P) OR EEX4535(P), EEX4537(P) OR EEX4347(P), EEX4436(P) OR EEX4436(P), EEX5536(P), EEX5351(P) OR EEX6351(P), EEX5346(P), EEX5270(CA), MHZ5530(P) OR MHZ5554(P), Pass in 80 credits including 50 credits Pass in X category. |
| EEY7881 | Engineering Research Project (Computer Engineering) | EEX6181(P), EEX6536(P) OR EEX7436(CR), EEX6236(CR), Pass in 80 credits including 50 credits pass in X category |

## Elective Courses

| Course | | Prerequisites |
|---|---|---|
| EEX3266 | Information Systems and Data Management | None |
| EEX3269 | Mobile Application Development for Android | None |
| EEX3262 | Introduction to Object Oriented Programming | EEX3533(P) OR EEX3517(P) OR EEX3417(CR) |

| EEX3372 | Programming in Python | EEX4547(P) OR EEX3517(P) OR EEX3417(CR) |
|---|---|---|
| *EEX4146 | Digital System Simulation | EEX3533(P) OR EEX3336(P), EEX3530(P) OR EEX3350(P) OR EEX3351(P), EEX4547(P) OR EEX3517(P) OR EEX3417(P), MHZ3531(P) OR MHZ3551(P), DMX3511(P) OR AGM3203(P), EEX3530(P) OR EEX4350(P) OR EEX4351(CR) |
| EEX4362 | Object Oriented Design and Programming | EEX3262(CA), EEX3417(P), MHZ3551(CA) |
| EEX4366 | Data Modelling and Database Systems | EEX3266(CA) |
| *EEX5280 | Creative Design | 45 credits pass |
| *EEX5466 | Advanced Database Systems | [EEX3266(P), EEX4366(CA)] OR EEX5545(P) |
| EEX5467 | Software Testing and Quality Assurance | EEX4547(P) OR EEX4537(P) OR EEX4347(P), 20 credits pass at Level 3 |
| EEX7241 | Neural Network & Fuzzy Logic Applications | EEX3533(P) OR EEX3517(P) OR EEX3417(P), 65 credits pass |
| EEX7244 | Data Mining | EEX4435(P), MHZ4553(P), 60 credits pass |
| EEX7340 | AI Techniques & Agent Technology | EEX4535(P) OR EEX4435(P), [MHZ4340(P), MHZ5340(P)] OR MHZ5355(P), EEX4547(P) OR EEX4537(P) OR EEX4347(P) |
| EEX7171 | Emerging Technologies | 60 credits pass |

**\*Not offered in 2023/2024**

# Curriculum for Electrical Engineering Specialisation

## Compulsory Courses

| Course | | Prerequisites |
|---|---|---|
| **Level 3** | | |
| EEX3331 | Electrical Measurements and Instrumentation | EEX3510(P) OR EEX3410(CR) |
| EEX3336 | Communications and Computer Technology | DMX3511(P) OR AGM3203(CR), EEX3510(P) OR EEX3410(CR), EEX4547(P) OR EEX3517(P) OR EEX3417(CR), EEX3530(P) OR EEX3350(P) OR EEX3351(CR) |
| EEX3351 | Electronics I | EEX3510(P) OR EEX3410(CR) |
| EEX3410 | Introduction to Electrical Engineering | MHZ3531(P) OR MHZ3552(CR) |
| EEX3417 | Software Development for Engineers | DMX3511(P) OR AGM3203(CR) |
| DMX3401 | Fluid Mechanics and Thermodynamics | None |
| DMX3305 | Introduction to Engineering Design Graphics | None |
| DMX3107 | Workshop Practice | None |
| MHZ3551 | Engineering Mathematics I | None |
| MHZ3552 | Engineering Mathematics II | None |
| AGM3203 | Communication Skills | None |
| **Level 4** | | |
| EEX4331 | Circuit Theory and Design | EEX3510(P) OR EEX3410(CA), [MHZ3531(P), MHZ3332(P)] OR [MHZ3551(CA), MHZ3552(CA)] |
| EEX4542 | Power Systems I | EEX3510(P) OR EEX3410(P), [MHZ3531(P), MHZ3332(P)] OR [MHZ3551(P), MHZ3552(CA)], DMX3511(P) OR DMX3511(P) OR DMX3305(P), EEX3531(P) OR EEX4331(CR), EEX4548(P) OR EEX4448(CR) |
| EEX4434 | Electrical Installations | EEX3510(P) OR EEX3410(P), DMX3511(P) OR DMX3305(P), EEX3532(P) OR EEX4532(P) OR EEX4332(CR) OR EEX4552(P) OR EEX4542(CR) |
| EEX4448 | Electrical Machines | EEX3510(P) OR EEX3410(P), [MHZ3531(P), MHZ3332(P)] OR [MHZ3551(P), MHZ3552(CA)], EEX4552(P) OR EEX4542(CR) |
| EEX4436 | Microprocessors and Interfacing | MHZ3531(P) OR MHZ3551(P), DMX3511(P) OR AGM3203(P), [EEX3533(P) OR (EEX3336(P), EEX3517(P) OR EEX3417(P)), [EEX3350(P) OR EEX3351(P), EEX4350(P) OR EEX4351(CR)] OR EEX3530(P) OR DMX3572(P) OR DMX3574(P) OR DMX3304(P) |
| EEX4351 | Electronics II | EEX3510(P) OR EEX3410(P), EEX3350(P) OR EEX3351(CA), MHZ3531(P) OR [MHZ3551(P), MHZ3552(CA)], DMX3511(P) OR AGM3203(P) |
| EEY4182 | Group Project (Electrical engineering) | Pass in 30 credits |
| MHZ4553 | Engineering Mathematics III | [MHZ3531(P), MHZ3332(P)] OR [MHZ3551(CA), MHZ3552(CA)] |
| AGM4307 | Economics and Marketing for Engineers | Pass in 18 credits in Level 3 |
| **Level 5** | | |
| EEX5352 | Power Systems II | MHZ4530(P) OR MHZ4553(CA), EEX4552(P) OR EEX4532(P) OR EEX4542(CA), EEX4548(P) OR [EEX4538(P), EEX3532(P)] OR EEX4448(CA), Pass in 36 credits at Level 3 |
| EEX5338 | High Voltage Engineering | EEX4548(P) OR EEX4448(CA) OR [EEX4538(P), EEX3532(P)], EEX4552(P) OR EEX4532(P) OR EEX4542(CA), Pass in 36 credits at Level 3 |
| EEX5348 | Electrical Machines and Drives | EEX4548(P) OR EEX4448(CA) OR [EEX4538(P), EEX3532(P)], EEX5453(CR), Pass in 36 credits at Level 3 |

| | | |
|---|---|---|
| EEX5351 | Digital Electronic Systems | EEX3510(P) OR EEX3410(P), EEX3533(P) OR EEX4547(P) OR [EEX3517(P) OR EEX3417(P), EEX3336(P)], EEX4350(P) OR EEX3530(P) OR EEX4351(P), MHZ3531(P) OR MHZ3551(P), DMX3511(P) OR AGM3203(P), EEX4536(P) OR EEX4436(CA) |
| EEX5453 | Power Electronics | EEX4350(P) OR EEX3530(P) OR EEX4351(P), EEX3531(P) OR EEX4331(P), EEX3532(P) OR EEX4532(P) OR EEX4332(P) OR EEX4552(P) OR EEX4542(P), Pass in 36 credits at Level 3 |
| DMX5403 | Control Systems Engineering | MHZ5554(CR) OR MHZ5530(P), 30 credits pass in X category |
| MHZ5554 | Engineering Mathematics IV | {[MHZ3551(P), MHZ3552(P)] OR [MHZ3531(P), MHZ3332(P)]}, [MHZ4553(CA) OR MHZ4530 (P)] |
| CVM5401 | Accounting for Engineers | AGM4307(CA), 30 credits pass |
| **Level 6** | | |
| EEX6354 | Comprehensive Electrical Engineering Design | EEX3532(P) OR EEX4532(P) OR EEX4332(P) OR EEX4552(P) OR EEX4542(P), EEX5453(CA), EEX5832(P) OR EEX5352(CA), [MHZ3531(P), MHZ3332(P)] OR [MHZ3551(P), MHZ3552(P)], DMX3511(P) OR AGM3203(P), DMX3535(P) OR DMX3401(P) |
| EEX6182 | Research Methodology and Project Identification (Electrical engineering) | Pass in 60 credits |
| EEX6441 | Electromagnetism and Wave Propagation | MHZ4530(P) OR MHZ4553(P), MHZ5530(P) OR MHZ5554(CR), Pass in 50 credits at Levels 3 & 4 |
| DMM6601 | Management for Engineers | CVM5401(CA), 60 credits(P) |
| **Level 7** | | |
| EEX7231 | Advanced Circuit Design and Analysis | EEX3531(P) OR EEX4331(P), MHZ4530(P) OR MHZ4553(CA), Pass in 60 credits from Levels 3 & 4 |
| EEX7432 | Power Systems Planning, Operations and Control | EEX4552(P) OR [EEX4532(P), EEX3532(P)] OR EEX4542(P), DMX4543(P) OR DMX5403(CA), EEX5832(P) OR EEX5352(CA), Pass in 60 credits at Levels 3 & 4 |
| EEY7882 | Engineering Research Project [Electrical] | EEX6182(CA), EEX6832(P) OR EEX7432(CR), EEW4002(CA) OR EEW5002(CA) OR EEW4502(CR) OR EEW6502(CR), Pass in 105 credits including 70 credits pass in X category |
| **Industrial Training** | | |
| EEW4301 | Industrial Training I (Electronics) | EEX4350(P) OR EEX3530(P) OR EEX4351(CR), Pass in 36 credits at Level 3 |
| And **one** of | | |
| EEW4502 | Industrial Training II (Electrical power) | EEW3001(P) OR EEW3590(P) OR EEW4301(CR), EEX4552(P) OR [EEX4532(P), EEX3532(P)] OR EEX4542(CA), EEX4548(P) OR [EEX4538(P), EEX3532(P)] OR EEX4448(CA), Pass in 45 credits |
| EEW6502 | Industrial Training II (Electrical Power - undergraduate) | EEW3001(P) OR EEW3590(P) OR EEW4301(CR), EEX4552(P) OR [EEX4532(P), EEX3532(P)] OR EEX4542(P), EEX4548(CA) OR [EEX4538(P), EEX3532(P)] OR EEX4448(CA), EEX5832(P) OR EEX5352(CA), Pass in 60 credits |

## Elective Courses

| Course | | Prerequisites |
|---|---|---|
| EEX3262 | Introduction to Object Oriented Programming | EEX3533(P) OR EEX3517(P) OR EEX3417(CR) |
| EEX3266 | Information Systems and Data Management | None |

| EEX3269 | Mobile Application Development for Android | None |
|---|---|---|
| EEX5434 | Data Communications and Networking | EEX3533(P) OR EEX3336(P), EEX3510(P) OR EEX3410(P), [MHZ3531(P), MHZ3332(P)] OR [MHZ3551(P), MHZ3552(P)], DMX3511(P) OR AGM3203(P) |
| EEX5346 | Embedded Systems | EEX4547(P) OR EEX3517(P) OR EEX3417(P), EEX3533(P) OR EEX3336(P), [EEX3350(P) OR EEX3351(P), EEX4350(P) OR EEX4351(CA)] OR EEX3530(P), EEX4536(P) OR EEX4436(CA), EEX5535(P) OR EEX5335(CR) OR EEX5564(CR) OR EEX5536(CR), MHJ5533(P) OR MHJ5342(CR) |
| EEX5360 | Signals and Systems | EEX3533(P) OR EEX3336(P), MHZ4530(P) ORMHZ4553(CR), [MHZ3531(P), MHZ3332(P)] OR [MHZ3551(P), MHZ3552(P)] |
| *EEX5280 | Creative Design | 45 credits pass |
| EEX5564 | Computer Architecture and Operating Systems | EEX3533(P) OR EEX3336(P), EEX4536(P)OR EEX4436(CA), 36 credits pass at Level 3 |
| EEX6450 | Analog Electronic Systems and Instrumentation | EEX3530(P) OR EEX4350(P) OR EEX4351(P), EEX3531(P) OR EEX4331(P), DMX4543(P) OR DMX5403(CA), Pass in 50 credits at Levels 3 & 4 |
| EEX6253 | Physical and Optoelectronics | EEX3530 (P) OR EEX4350(P) OR EEX4351(P), MHZ4530(P) OR MHZ4553(P), Pass in 50 credits at Levels 3 & 4 |
| TAX6556 | Ergonomics | Pass in 45 credits at level 4 or above |
| EEX7241 | Neural Network & Fuzzy Logic Applications | EEX3533(P) OR EEX3517(P) OR EEX3417(P), Pass in 65 credits |
| *EEX7342 | Advanced Control Engineering | DMX4543(P) OR DMX5403(P), MHZ5330(P) OR MHZ5554(P), Pass in 80 credits |
| *EEX7353 | Power Electronic Applications and Drives | EEX5453(CA), EEX6354(P), EEX5832(P) OR EEX5352(CA), MHZ4530(P) OR MHZ4553(P), Pass in 60 credits at levels 3 and 4 |
| EEX7171 | Emerging Technologies | Pass in 60 credits |
| DMX7305 | Renewable Sources of Energy | [MHZ4553(P) OR DMX4530(P)], [[DMX4202(P) OR DMX5531(P)], [DMX4203(P) OR DMX6578(P) OR DMX5530(P)]] OR [ [DMX3401(P) OR DMX3535(P)], [EEX4542(P) OR EEX4532(P)]] |
| DMX7301 | Thermal Power Generation | [[DMX4202(P), DMX5205(CA)] OR DMX5531(P)] OR [[DMX3401(P) OR DMX3535(P)], [EEX5348(CA) OREEX5548(CA)]] |

* Not offered in 2023/2024

# Curriculum for Electronic and Communication Engineering

## Compulsory Courses

| Course | | Prerequisites |
|---|---|---|
| **Level 3** | | |
| EEX3331 | Electrical measurements and instrumentation | EEX3510(P) OR EEX3410(CR) |
| EEX3336 | Communications and Computer Technology | DMX3511(P) OR AGM3203(CR), EEX3510(P) OR EEX3410(CR), EEX4547(P) OR EEX3517(P) OR EEX3417(CR), EEX3530(P) OR EEX3350(P) OR EEX3351(CR)) |
| EEX3351 | Electronics I | EEX3510(P) OR EEX3410(CR) |
| EEX3410 | Introduction to Electrical Engineering | MHZ3531(P) OR MHZ3552(CR) |
| EEX3417 | Software Development for Engineers | DMX3511(P) OR AGM3203(CR) |
| DMX3401 | Fluid Mechanics and Thermodynamics | None |
| DMX3305 | Introduction to Engineering Design Graphics | None |
| DMX3107 | Workshop Practice | None |
| MHZ3551 | Engineering Mathematics I | None |
| MHZ3552 | Engineering Mathematics II | None |
| AGM3203 | Communication Skills | None |
| EEX3262 | Introduction to Object Oriented Programming | EEX3533(P) OR EEX3517(P) OR EEX3417(CR) |
| **Level 4** | | |
| EEX4331 | Circuit Theory and Design | EEX3510(P) OR EEX3410(CA), [MHZ3531(P), MHZ3332(P)] OR [MHZ3551(CA), MHZ3552(CA)] |
| EEX4332 | Electrical power | EEX3510(P) OR EEX3410(CA), MHZ3531(P) OR MHZ3551(CA) |
| EEX4330 | Communications | EEX3510(P) OR EEX3410(P), [MHZ3531(P), MHZ3332(P)] OR [MHZ3551(P), MHZ3552(P)], EEX3533(P) OR EEX3336(CA) |
| EEX4436 | Microprocessors and Interfacing | MHZ3531(P) OR MHZ3551(P), DMX3511(P) OR AGM3203(P), [EEX3533(P) OR (EEX3336(P), EEX3517(P) OR EEX3417(P)), [EEX3350(P) OR EEX3351(P), EEX4350(P) OR EEX4351(CR)] OR EEX3530(P) OR DMX3572(P) OR DMX3574(P) OR DMX3304(P) |
| EEX4351 | Electronics II | EEX3510(P) OR EEX3410(CA), EEX3350(P) OR EEX3351(CA), MHZ3531(CA) OR [MHZ3551(P), MHZ3552(CA)], DMX3511(P) OR AGM3203(CA) |
| MHZ4553 | Engineering Mathematics III | [MHZ3531(P), MHZ3332(P)] OR [MHZ3551(CA), MHZ3552(CA)] |
| AGM4307 | Economics and Marketing for Engineers | Pass in 18 credits at Level 3 |
| EEY4183 | Group Project (Electronics and Communication) | Pass in 30 credits |
| EEW4403 | Industrial Training I [Electronic and Communication] | DMW3001(P) OR DMX3107(P), EEX4350(P) OR EEX3530(P) OR EEX4351(CR), EEX4533(P) OR EEX4330(CR), 36 credits at Level 3 and 4 |
| **Level 5** | | |
| EEX5150 | Electronic Circuit Design | EEX3531(P) OR EEX4331[P], 35 credits pass at Level 3 |
| EEX5360 | Signals and Systems | EEX3533(P) OR EEX3336(P), MHZ4530(P) OR MHZ4553(CR), [MHZ3531(P), MHZ3332(P)] OR [MHZ3551(P), MHZ3552(P)] |
| EEX5434 | Data Communications & Networking | EEX3533(P) OR EEX3336(P), EEX3510(P) OR EEX3410(P), [MHZ3531(P), MHZ3332(P)] OR [MHZ3551(P), MHZ3552(P)], DMX3511(P) OR AGM3203(P) |
| EEX5333 | Communication Theory and Systems | EEX3533(P) OR EEX3336(P), EEX4533(P) OR EEX4330(P), MHZ4553(P), 36 credits pass at Level 3 |
| EEX5351 | Digital Electronic Systems | EEX3510(P) OR EEX3410(P), EEX3533(P) OR |

| | | |
|---|---|---|
| | | EEX4547(P) OR [EEX3517(P) OR EEX3417(P), EEX3336(P)], EEX4350(P) OR EEX3530(P) OR EEX4351(P), MHZ3531(P) OR MHZ3551(P), DMX3511(P) OR AGM3203(P), EEX4536(P) OR EEX4436(CA) |
| DMX5403 | Control Systems Engineering | MHZ5554 (CR) OR MHZ5530(P), 30 credits pass in X category |
| EEX5564 | Computer Architecture and Operating Systems | EEX3533(P) OR EEX3336(P), EEX4536(P) OR EEX4436(CA), 36 credits pass at Level 3 |
| MHZ5554 | Engineering Mathematics IV | {[MHZ3551(P), MHZ3552(P)] OR [MHZ3531(P), MHZ3332(P)]}, [MHZ4553(CA) OR MHZ4530 (P)] |
| CVM5401 | Accounting for Engineers | AGM4307(CA), 30 Credits pass |
| EEW5403 | Industrial Training II [Electronic and Communication] | DMW3001(P) OR DMX3107(P), EEX4350(P) OR EEX3530(P) OR EEX4351(P), EEX4533(P) OR EEX4330(P), Pass in 45 credits |
| **Level 6** | | |
| EEX6339 | Wireless Communications | MHZ4530(P) OR MHZ4553(P), EEX5533(P) OR EEX5333(CA), Pass in 50 credits at Levels 3 & 4 |
| EEX6253 | Physical and Optoelectronics | EEX3530 (P) OR EEX4350(P) OR EEX4351(P), MHZ4530(P) OR MHZ4553(P), Pass in 50 credits at Levels 3 & 4 |
| EEX6450 | Analog Electronic Systems and Instrumentation | EEX3530(P) OR EEX4350(P) OR EEX4351(P), EEX3531(P) OR EEX4331(P), DMX4543(P) OR DMX5403(CA), Pass in 50 credits at Levels 3 & 4 |
| EEX6441 | Electromagnetism and Wave Propagation | MHZ4530(P) OR MHZ4553(P), MHZ5530(P) OR MHZ5554(CR), Pass in 50 credits at Levels 3 & 4 |
| DMM6601 | Management for Engineers | CVM5401(CA), 60 credits(P) |
| EEX6183 | Research methodology and project identification (Electronics and Communication) | Pass in 60 credits |
| **Level 7** | | |
| EEX7355 | Comprehensive Electronics Design | EEX3530(P) OR EEX4350(P) OR EEX4351(P), EX5533(P) OR EEX5333(CR), EEX5150(CA), EEX6351(P) OR EEX5351(CR), EEX6550(P) OR EEX6450(CR), [MHZ3531(P), MHZ3332(P)] OR [MHZ3551(P), MHZ3552(P)], DMX3511(P) OR AGM3203(P) |
| EEX7333 | Microwave Devices and Antennas | MHZ4530(P) OR MHZ4553(P), EEX6541(P) OR EEX6441(P), Pass in 80 credits |
| EEY7883 | Engineering Research Project (Electronics and Communication) | EEX5533(P) OR EEX5333(P), EEX6351(P) OR EEX5351(P), EEX5150(P), EEX6183(CA), Pass in 90 credits including 60 credits pass in X category |

## Elective Courses

| | Course | Prerequisites |
|---|---|---|
| EEX3266 | Information Systems and Data Management | None |
| EEX3269 | Mobile Application Development for Android | None |
| EEX4434 | Electrical Installations | EEX3510(P) OR EEX3410(P), DMX3511(P) OR DMX3305(P), EEX3532(P) OR EEX4532(P) OR EEX4332(CR) OR EEX4552(P) OR EEX4542(CR) |
| *EEX5280 | Creative Design | 45 credits pass |
| EEX5346 | Embedded Systems | EEX4547(P) OR EEX3517(P) OR EEX3417(P), EEX3533(P) OR EEX3336(P), [EEX3350(P) OR EEX3351(P), EEX4350(P) OR EEX4351(CA)] OR EEX3530(P), EEX4536(P) OR EEX4436(CA), EEX5535(P) OR EEX5335(CR) OR EEX5564(CR) OR EEX5536(CR), MHJ5533(P) OR MHJ5342(CR) |
| EEX5453 | Power Electronics | EEX4350(P) OR EEX3530(P) OR EEX4351(CA), EEX3531(P) OR EEX4331(CA), EEX3532(P) OR EEX4532(P) OR EEX4332(P) OR EEX4552(P) OR |

| | | EEX4542(CA), Pass in 36 credits at Level 3 |
|---|---|---|
| EEX7434 | Digital Signal Processing | EEX5360(P), Pass in 45 credits |
| EEX7436 | Processor Design | EEX6351(P) OR EEX6830(P) OR EEX5351(CA), EEX5536(CA), EEX3533(P) OR EEX4547(P) OR [EEX3517(P) OR EEX3417(P), EEX3336(P)], DMX3511(P) OR AGM3203(P), MHZ3550(P) OR MHZ3551(P), EEX4536(P) OR EEX4436(P) |
| *EEX7339 | Information Theory and Coding | MHZ4530(P) OR MHZ4553(P), EEX5533(P) OR EEX5333(P), Pass in 80 credits |
| *EEX7343 | Optical Communications | EEX5543(P) OR EEX6253(CA), EEX5533(P) OR EEX5333(P), Pass in 80 credits |
| *EEX7342 | Advanced Control Engineering | DMX4543(P) OR DMX5403(P), MHZ5530(P) OR MHZ5554(P), Pass in 80 credits |
| *EEX7353 | Power Electronic Applications and Drives | Pass in 60 credits at level 3 and 4, MHZ4530(P) OR MHZ4553(P), EEX5453(CA), EEX6354(P), EEX5832(P) OR EEX5352(CA), |
| DMX7304 | Factory Automation | [[DMX4409(P) OR DMX4571(P)], [DMX5403(P) OR DMX4543(P)]], OR EEX4536 (P) OR EEX4436 (P) |
| EEX7171 | Emerging Technologies | Pass in 60 credits |

* Not offered in 2023/2024

# Curriculum for Mechanical Engineering Specialisation

**Compulsory Courses**

| Course | | Prerequisites |
|---|---|---|
| **Level 3** | | |
| DMX3401 | Fluid Mechanics and Thermodynamics | None |
| DMX3302 | Engineering Mechanics | MHZ3551(CR), MHZ3552(CR) |
| DMX3203 | Introduction to Engineering Materials | None |
| DMX3304 | Applied Electronics | EEX3410(CR) |
| DMX3305 | Introduction to Engineering Design Graphics | None |
| DMX3206 | Introduction to Manufacturing Processes | DMX3107(CR) |
| DMX3107 | Workshop Practice | None |
| EEX3410 | Introduction to Electrical Engineering | MHZ3552(CR) |
| EEX3417 | Software Development for Engineers | AGM3203(CR) |
| MHZ3551 | Engineering Mathematics I | None |
| MHZ3552 | Engineering Mathematics II | None |
| AGM3203 | Communication Skills | None |
| **Level 4** | | |
| MHZ4553 | Engineering Mathematics III | [MHZ3551(CA), MHZ3552(CA)] OR [MHZ3531(P), MHZ3332(P)] |
| DMX4201 | Advanced Engineering Design Graphics | DMX3305(P) |
| DMX4202 | Applied Thermodynamics I | DMX3401(CA) |
| DMX4203 | Applied Fluid Dynamics I | DMX3401(CA) |
| DMX4204 | Machine Dynamics | DMX3302(CA), MHZ3551(CA), MHZ3552(CA) |
| DMX4205 | Strength of Materials I | DMX3302(CA), MHZ3551(CA), MHZ3552(CA) |
| DMX4306 | Design of Machine Elements | DMX3302(CA), DMX3203(CA), DMX3305 (CA) |
| DMX4307 | Electrical Machines and Drives | EEX3410 (CA), DMX3304 (CA), MHZ3551(CA), MHZ3552(CA) |
| DMX4208 | Automobile Technology | DMX3401(CA) |
| DMX4212 | Manufacturing Engineering | DMX3206(CA), MHZ3551(CA), MHZ3552(CA) |
| EEX4436 | Microprocessors and Interfacing | {[EEX4351(CR),EEX3336(P), EEX3351(P)] or DMX3304(P)}, EEX3417(P), MHZ3551(P), AGM3203(P) |
| DMY4101 | Group project (Mechanical Engineering) | AGM3203(CA), DMX3305(CA) |
| AGM4307 | Economics and Marketing for Engineers | 18 credits (P) |
| DMW4801 | Industrial Training  (Mechanical -Diploma) | 38 credits at Level 3 (P), 20 credits in X category courses at Level 4 (CA) |
| **Level 5** | | |
| DMX5201 | Advanced Engineering Mechanics | DMX3302(P), DMX4205(CA), DMX4204(CA), MHZ3551(P), MHZ3552(P) |
| DMX5302 | Strength of Materials II | DMX3302(P), DMX4205(CA), MHZ3551(P), MHZ3552(P) |
| DMX5403 | Control Systems Engineering | MHZ5554 (CR), 30 credits in X category courses (P) |
| DMX5204 | Materials Engineering | DMX3203 (P) |
| DMX5205 | Applied Thermodynamics II | DMX4202(CA), MHZ4553(CA) |
| DMX5206 | Applied Fluid dynamics II | DMX4203(CA), MHZ4553(CA) |
| DMX5307 | Mechanical Engineering Design Project | DMX4306(CA), DMX4204(CA), DMX4205(CA), DMX5403(CR) |
| MHZ5554 | Engineering Mathematics IV | {[MHZ3551(P), MHZ3552(P)] OR [MHZ3531(P), MHZ3332(P)]}, [MHZ4553(CA) OR MHZ4530 (P)] |
| CVM5401 | Accounting for Engineers | AGM4307(P) |
| **Level 6** | | |
| DMX6180 | Research Methodology and Project Identification (Mechanical/Mechatronics Engineering) | 30 credits at Level 4 or above (P) |
| DMX6301 | Industrial Engineering | MHZ4553 (P), 60 credits (P) |
| DMX6302 | Energy, Environment and Sustainability | 75 Credits (P) |
| DMM6601 | Management for Engineers * | CVM5401 (CA), 60 credits (P) |
| DMW6801 | Industrial Training  (Mechanical - | DMX5201(P), DMX5302(P), DMX5403(P), |

| | | |
|---|---|---|
| | Undergraduate) | DMX5204(P), DMX5205(P), DMX5206(P), DMX5307(CA) |
| **Level 7** | | |
| DMX7301 | Thermal Power Generation | [DMX4202(P) and DMX5205(CA)] or [DMX3401(P) and EEX5348(CA)] |
| DMX7402 | Analysis of Manufacturing Systems & Processes | DMX3206 (P), MHZ5554(CA), 60 credits (P) |
| DMY7880 | Engineering Research Project (Mechanical Engineering) | DMX6180(CA), 50 credits in X category courses (P) |

## Elective Courses

| Courses | | Prerequisites |
|---|---|---|
| DMX5208 | Automobile Engineering | DMX4208(P) |
| DMX5209 | Automotive Electronics | DMX3304 (P), DMX4307(CA), DMX4208(CA), EEX4436(CA) |
| DMX5210 | Vehicle Dynamics and Design of Automotive Components | DMX4208(P) |
| DMX5211 | Plant Maintenance | DMX3206 (P), MHZ5554 (CR) |
| DMX5212 | Computer Aided Design and Manufacturing | DMX4201(CA), DMX4212(CA) |
| DMX6303 | Nano Technology | DMX3203(P), DMX3206(P), 60 Credits (P) |
| DMX6304 | Computational Fluid Dynamics | MHZ4553(P), DMX5206(P) |
| DMX7303 | Control of Robotics Manipulators | DMX5201(P), DMX5403(P), MHZ5554 (P) |
| DMX7304 | Factory Automation | DMX4409(P)  OR EEX4436 (P) OR DMX5403(P) |
| DMX7305 | Renewable Sources of Energy | MHZ4553(P), {[DMX3401(P) and EEX4542(P)] or [DMX4202(P) and DMX4203(P)]} |

# Curriculum for Mechatronics Engineering Specialisation

## Compulsory Courses

| Course | | Prerequisites |
|---|---|---|
| **Level 3** | | |
| DMX3401 | Fluid Mechanics and Thermodynamics | None |
| DMX3302 | Engineering Mechanics | MHZ3551(CR), MHZ3552(CR) |
| DMX3203 | Introduction to Engineering Materials | None |
| DMX3304 | Applied Electronics | EEX3410(CR) |
| DMX3305 | Introduction to Engineering Design Graphics | None |
| DMX3206 | Introduction to Manufacturing Processes | DMX3107(CR) |
| DMX3107 | Workshop Practice | None |
| EEX3410 | Introduction to Electrical Engineering | MHZ3552(CR) |
| EEX3417 | Software Development for Engineers | AGM3203(CR) |
| MHZ3551 | Engineering Mathematics I | None |
| MHZ3552 | Engineering Mathematics II | None |
| AGM3203 | Communication Skills | None |
| **Level 4** | | |
| DMX4409 | Sensors | EEX3410(CA), DMX3304(CA), MHZ3551(CA), MHZ3552(CA) |
| DMX4410 | Electrical & Pneumatic Machines | EEX3410(CA), DMX3304(CA), MHZ3551(CA), MHZ3552(CA) |
| DMX4204 | Machine Dynamics | DMX3302(CA), MHZ3551(CA), MHZ3552(CA) |
| DMX4205 | Strength of Materials I | DMX3302(CA), MHZ3551(CA), MHZ3552(CA) |
| DMX4306 | Design of Machine Elements | DMX3302(CA), DMX3203(CA), DMX3305(CA) |
| DMX4411 | Signal Processing | DMX3304(CA), MHZ3551(CA), MHZ3552(CA) |
| EEX4436 | Microprocessors and Interfacing | {[EEX4351(CR), EEX3336(P), EEX3351(P)] or DMX3304(P)}, EEX3417(P), MHZ3551(P), AGM3203(P) |
| DMY4102 | Group project (Mechatronics Engineering) | AGM3203(CA), DMX3305(CA) |
| MHZ4553 | Engineering Mathematics III | [MHZ3551(CA), MHZ3552(CA)] OR [MHZ3531(P), MHZ3332(P)] |
| AGM4307 | Economics and Marketing for Engineers | 18 credits (P) |
| DMW4802 | Industrial Training (Mechatronics - Diploma) | 38 credits at Level 3 (P), 20 credits in X category courses at Level 4 (CA) |
| **Level 5** | | |
| DMX5201 | Advanced Engineering Mechanics | DMX3302(P), DMX4205(CA), DMX4204(CA), MHZ3551(P), MHZ3552(P) |
| DMX5403 | Control Systems Engineering | MHZ5554(CR), 30 credits in X category courses (P) |
| DMX5313 | Power Electronics and Motor Drives | DMX3304(P), DMX4410(CA) |
| DMX5314 | Machine Vision | MHZ4553(CA), DMX4409(CA) |
| DMX5315 | Artificial Intelligence | DMX5403(CR), MHZ5554(CR) |
| DMX5316 | Mechatronics Product Design | DMX3304(P), DMX4409(CA), DMX4410(CA) |
| MHZ5554 | Engineering Mathematics IV | {[MHZ3551(P), MHZ3552(P)] OR [MHZ3531(P), MHZ3332(P)]}, [MHZ4553(CA) OR MHZ4530 (P)] |
| CVM5401 | Accounting for Engineers | AGM4307(P) |
| **Level 6** | | |
| DMX6180 | Research Methodology and Project Identification (Mechanical/Mechatronics Engineering) | 30 credits at Level 4 or above (P) |
| DMX6305 | Modern Control Systems | DMX5403(CA), MHZ5554(CA) |
| DMX6306 | Micro and Nano Electro Mechanical Systems | DMX3206(P),[DMX4307(P)] or DMX4410(P)] and MHZ4553(P) |
| DMM6601 | Management for Engineers | CVM5401(CA), 60 credits(P) |
| DMW6802 | Industrial Training (Mechatronics - Undergraduate) | DMX5201(P), DMX5403(P), DMX5313(P), DMX5314(CA), DMX5315(CA), DMX5316(CA) |

| Level 7 | | |
|---|---|---|
| DMX7303 | Control of Robotics Manipulators | DMX5201(P), DMX5403(P), MHZ5554(P) |
| DMX7304 | Factory Automation | DMX4409(P)  OR EEX4436 (P) OR DMX5403(P) |
| DMX7306 | Intelligent Control Systems | DMX6305(CR), DMX5315(CA), DMX5403(P) |
| DMY7881 | Engineering Research Project (Mechatronics Engineering) | DMX6180(CA), 50 credits in X category courses (P) |

## Elective Courses

| Course | | Prerequisites |
|---|---|---|
| DMX5204 | Materials Engineering | DMX3203(P) |
| DMX5211 | Plant Maintenance | DMX3206(P), MHZ5554 (CR) |
| DMX5212 | Computer Aided Design and Manufacturing | DMX4201(CA), DMX4212(CA) |
| DMX6303 | Nano Technology | DMX3203(P), DMX3206(P), 60 Credits (P) |
| DMX6304 | Computational Fluid Dynamics | MHZ4553(P), DMX5206(P) |
| DMX7301 | Thermal Power Generation | [DMX4202(P) and DMX5205(CA)] or [DMX3401(P) and EEX5348(CA)] |
| DMX7305 | Renewable Sources of Energy | MHZ4553 (P), {[DMX3401 (P) and EEX4542 (P)] or [DMX4202 (P) and DMX4203 (P)]} |
| DMX7402 | Analysis of Manufacturing Systems & Processes | DMX3206 (P), MHZ5554(CA), 60 credits (P) |

# Curriculum for Textile and Clothing Engineering Specialisation

**Compulsory Courses**

| | Courses | Prerequisites |
|---|---|---|
| **Level 3** | | |
| TAX3331 | Garment Analysis and Sewing Machinery | None |
| TAX3458 | Fibre Science and Technology | None |
| TAX3459 | Yarn Manufacture I | None |
| EEX3410 | Introduction to Electrical Engineering | MHZ3552(CR) or MHZ3532(P) |
| EEX3417 | Software Development for Engineers | AGM3203(CR) or DMX3511(P) |
| DMX3401 | Fluid Mechanics and Thermodynamics | None |
| DMX3305 | Introduction to Engineering Design Graphics | None |
| DMX3107 | Workshop Practice | None |
| MHZ3551 | Engineering Mathematics I | None |
| MHZ3552 | Engineering Mathematics II | None |
| AGM3203 | Communication Skills | None |
| **Level 4** | | |
| TAX4539 | Quality Assurance for Textile & Clothing | 15 credits(P) |
| TAX4540 | Garment Manufacture | TAX3331(CA) or TAX3539(P), 15 credits (P) |
| TAX4560 | Woven Fabric Technology | 15 credits(P) |
| TAX4361 | Knitting Technology | 15 credits(P) |
| TAY4181 | Group Project (Textile & Clothing Engineering) | 15 credits(P) |
| MHZ4553 | Engineering Mathematics III | [MHZ3551(CA), MHZ3552(CA)] OR [MHZ3531(P), MHZ3332(P)] |
| AGM4307 | Economics and Marketing for Engineers | 18 credits(P) |
| **Level 5** | | |
| DMX5403 | Control Systems Engineering | MHZ5554(CR) or MHZ5530(P), 30 credits(P) in X category courses |
| TAX5551 | Textile Colouration | 45 credits(P) |
| TAX5547 | Plant Utilities | 45 credits(P) |
| TAX5648 | Fabric Structure and Analysis | 45 credits(P) |
| TAX5349 | Nonwoven Textiles | [TAX3458(P) or TAX3531(P) or TAX3530(P) or TAX3537(P)], 45 credits(P) |
| MHZ5554 | Engineering Mathematics IV | {[MHZ3551(P), MHZ3552(P)] OR [MHZ3531(P), MHZ3332(P)]}, [MHZ4553(CA) OR MHZ4530 (P)] |
| CVM5401 | Accounting for Engineers | AGM4307(P) |
| **Level 6** | | |
| TAX6180 | Research Methodology and Project Identification (Textile and Clothing Engineering) | 45 credits(P) at level 4 and above |
| TAX6556 | Ergonomics | 45 credits(P) at level 4 and above |
| DMM6601 | Management for Engineers | CVM5401(CA), 60 credits(P) |
| **Level 7** | | |
| TAX7368 | Specialty Fabrics | TAX4361(P) or TAX5562(P), TAX4560(P), 45 credits(P) at level 4 and above |
| TAX7464 | Yarn & Fabric Mechanics | TAX4560(P), [(MHZ3551(P), MHZ3552(P)) or (MHZ3531(P), MHZ(3532(P)], 45 credits(P) at level 4 and above |
| TAX7369 | Engineering Aspects of Weaving | TAX4560(P), 45 credits(P) at level 4 and above |
| TAY7880 | Engineering Research Project (Textile & Clothing Engineering) | TAX6180(CA), 45 credits(P) at level 4 and above |
| TAY7381 | Comprehensive Design Project (Group project-Textile & Clothing Engineering) | TAX6180(CA), 45 credits(P) at level 4 and above |

| Industrial Training (Select any 2 out of 5 training courses) | | |
|---|---|---|
| TAW4401 | Industrial Training I (Apparel) | TAX3331(P) or TAX3539(P), TAX4438(CR) or TAI3541(P), 15 credits(P) |

| TAW5403 | Industrial Training II (Yarn Manufacture) | TAX3459(P) or TAX3532(P), 15 credits(P) |
|---|---|---|
| TAW5404 | Industrial Training II (Weaving) | TAX4560(P), 15 credits(P) |
| TAW5405 | Industrial Training II (Chemical Processing) | TAX5551(CR) or TAX4532(P) or TAX4571(P) or TAX4534(P), 15 credits(P) |
| TAW5406 | Industrial Training II (Knitting) | TAX4361(P) or TAX5562(P) , 15 credits(P) |

## Elective Courses

| Courses | | Prerequisites |
|---|---|---|
| TAX4462 | Pattern Development | 15 credits(P) |
| TAX4438 | Production Planning and organisation | 15 credits(P) |
| TAJ5353 | History and Traditions of Clothing | 45 credits(P) |
| TAX6454 | Technical Textiles | 45 credits(P) at level 4 and above |
| TAX6263 | Textile Product Engineering | 45 credits(P) at level 4 and above |
| TAX6265 | Advanced Weaving Preparation and Machinery | TAX4560(P), 45 credits (P) at level 4 and above |
| TAX6366 | Yarn Manufacture II | TAX3459(P) or TAX3532(P), 45 credits(P) at level 4 and above, |
| TAX6367 | Advanced Colouration | [TAX4571(P) or TAX4534(p) or TAX5551(CA) or TAX4532(P)], 45 credits (P) at level 4 and above, |
| TAX6368* | Nano Technology for Textiles | 45 credits (P) at level 4 and above, [TAX5551(CA) or TAX4532(P) or TAX4571(P) or TAX4534(P)], [TAX3458(P) or TAX3531(P) or TAX3530(P) or TAX3537(P)] |

*Not offered in 2023/2024


## Excluded Combinations

TAX6368 and DMX6303

# Exclusive Course Combinations for BTech Hons (Eng) Study Programme

| | | |
|---|---|---|
| EEX4332 and EEX4552 | EEX4332 and EEX4548 | EEX3530 and DMX3572 |
| EEX3532 and EEX4548 | EEX3350 and EEX3530 | EEX3350 and DMX3572 |
| EEX3350 and DMX3304 | EEX3351 and DMX3304 | EEX3351 and DMX3572 |
| EEX4542 and DMX3572 | EEX4542 and DMX3304 | EEX4552 and DMX3304 |
| EEX4547 and EEX4537 | EEX4548 and EEX4538 | EEX4552 and EEX3532 |
| EEX5543 and EEX5539 | EEX5547 and EEX5537 | EEX5545 and EEX5540 |
| EEX6351 and EEX6830 | EEX6550 and EEX6830 | EEX6543 and EEX6833 |
| DMX6573 and EEX6542 | TAX3539 and TAI3539 | TAI4538 and TAX4538 |
| TAX4531 and TAX5562 | TAM4539 and DMM5836 | TAM4539 and TAM5861 |
| TAM5861 and DAM5836 | | |

## Exclusive Course Combinations for <mark>BSc Hons (Eng)</mark> Study Programme (additional list)

### Courses offered by the Department of Civil Engineering

| | | |
|---|---|---|
| CVX3531 and CVX3441 | CVX5530 and CVX5440 | CVY6D95 and CVY7880 |
| CVX3532 and CVX3340 | CVX5531 and CVX4240 | CVY6A96 and CVY7880 |
| CVX3533 and CVX4342 | CVX5531 and CVX4241 | CVY6397 and CVX6180 |
| CVX3534 and CVX3442 | CVX5531 and CVX5241 | CVY6A98 and CVY7880 |
| CVX4530 and CVX4343 | CVX5531 and CVX5242 | CVW4002 and CVW4802 |
| CVX4531 and CVX4445 | CVX5532 and CVX4344 | CVW5003 and CVW6803 |
| CVX3530 and CVX4446 | CVX5533 and CVX5443 | |
| CVX4532 and CVX4446 | CVX6530 and CVX6444 | |
| CVX4533 and CVX4347 | CVX6530 and CVX7241 | |
| CVX4534 and CVX4348 | CVX6831 and CVX6546 | |
| CVX4535 and CVX4349 | CVX6832 and CVX7640 | |
| CVX4538 and CVX4350 | CVX6533 and CVX6345 | |

### Courses offered by the Department of Electrical and Computer Engineering

| | | |
|---|---|---|
| EEX3350 and EEX3351 | EEX5547 and EEY4181 | EEW5001 and EEW5501 |
| EEX3510 and EEX3410 | EEX5832 and EEX5352 | EEW5003 and EEW5403 |
| EEX3517 and EEX3417 | EEX5567 and EEX5467 | EEW5002 and EEW6502 |
| EEX3533 and EEX3336 | EEX6351 and EEX5351 | EEX4332 and EEX4552 |
| EEX3531 and EEX3331 | EEX6534 and EEX7434 | EEX4332 and EEX4548 |
| EEX3531 and EEX4331 | EEX6535 and EEX6335 | EEX3530 and DMX3572 |
| EEX3532 and EEX4332 | EEX6536 and EEX7436 | EEX3532 and EEX4548 |
| EEX4350 and EEX4351 | EEX6539 and EEX6339 | EEX3350 and EEX3530 |
| EEX4533 and EEX4330 | EEX6540 and EEX7340 | EEX3350 and DMX3572 |
| EEX4534 and EEX4434 | EEX6541 and EEX6441 | EEX4547 and EEX4537 |
| EEX4535 and EEX4435 | EEX6542 and EEX7342 | EEX4548 and EEX4538 |
| EEX4536 and EEX4436 | EEX6550 and EEX6450 | EEX4552 and EEX3532 |
| EEX4547 and EEX4347 | EEX6543 and EEX7333 | EEX5543 and EEX5539 |
| EEX4548 and EEX4448 | EEX6832 and EEX7432 | EEX5547 and EEX5537 |
| EEX4552 and EEX4542 | EEY6D95 and EEY7881 | EEX5545 and EEX5540 |
| EEX4562 and EEX4362 | EEY6D95 and EEY7882 | EEX6351 and EEX6830 |
| EEX5531 and EEX7231 | EEY6D95 and EEY7883 | EEX6550 and EEX6830 |
| EEX5533 and EEX5333 | EEY6A96 and EEY7881 | EEX6543 and EEX6833 |
| EEX5534 and EEX5434 | EEY6A96 and EEY7882 | DMX6573 and EEX6542 |
| EEX5535 and EEX5335 | EEY6A96 and EEY7883 | |
| EEX5538 and EEX5338 | EEW3001and EEW4301 | |
| EEX5543 and EEX6253 | EEW3001 and EEW4403 | |
| EEX5545 and EEX3266 | EEW4001 and EEW5501 | |
| EEX5545 and EEX4366 | EEW4002 and EEW4502 | |
| | EEW4003 and EEW5403 | |

## Courses offered by the Department of Mathematics and Philosophy in Engineering

MHZ3531 and MHZ3551          MHZ4256 and MHZ3551
MHZ3332 and MHZ3551          MHZ4256 and MHZ3552
MHZ3531 and MHZ3552          MHZ5340 and MHZ5355
MHZ3332 and MHZ3552          MHZ5530 and MHZ5554
LLJ3360 and LLJ3245          MHJ5531 and MHJ5343
MHZ4530 and MHZ4553          MHJ5533 and MHJ5342
MHJ4331 and MHJ4241

## Courses offered by the Department of Mechanical Engineering

DMX3511 and DMX3305          DMX4576 and DMX4204          DMX6532 and DMX5210
DMX3511 and AGM3203          DMX4835 and DMX3302          DMX6534 and DMX5212
DMX3512 and DMX3401          DMX4835 and DMX4204          DMX6535 and DMX7301
DMX3533 and DMX3206          DMX4835 and DMX4205          DMX6536 and DMX7305
DMX3533 and DMX3203          DMX5531 and DMX4202          DMX6540 and DMX6301
DMX3534 and DMX4201          DMX5531 and DMX5205          DMX6578 and DMX4203
DMX3535 and DMX3401          DMX5532 and DMX5302          DMX6578 and DMX5206
DMX3572 and DMX3304          DMX5533 and DMX5201          DMY6A98 and DMY7880
DMX3574 and DMX3304          DMX5570 and DMX5313          DMY6D95 and DMY7880
DMK3370 and EEX3417          DMX5571 and DMX5314          DMY6A96 and DMY7880
DMW3001 and DMX3107          DMX5572 and DMX3203          DMY6D73 and DMY7881
DMX4342 and DMX5209          DMX5572 and DMX3206          DMY6A74 and DMY7881
DMX4530 and DMX4212          DMX5577 and DMX4306          DMW4002 and DMW4801
DMX4532 and DMX4208          DMX5577 and DMX5307          DMW5002 and DMW6801
DMX4533 and DMX3203          DMM5836 and AGM4307          DMW4003 and DMW4802
DMX4533 and DMX5204          DMM5836 and CVM5401          DMW5003 and DMW6802
DMX4543 and DMX5403          DMM5836 and DMM6601          DMX6578 and DMX4203
DMX4571 and DMX4409          DMX6570 and DMX7304          EEX3530 and DMX3304
DMX4571 and DMX4410          DMX6571 and DMX7303          EEX3351 and DMX3304
DMX4572 and DMX4204          DMX6573 and DMX5315          EEX7342 and DMX5315
DMX4573 and DMX5316          DMX6573 and DMX6306          EEX7342 and DMX6306
DMX4575 and DMX4205          DMX6573 and DMX7306          EEX7342 and DMX7306
DMX4576 and DMX3302          DMX6531 and DMX5208

## Courses offered by the Department of Textile and Apparel Technology

TAX3531 and TAX3458          TAX5560 and    TAX4462          TAY6A96 and      TAY7880
TAX3532 and TAX3459          TAX5562 and    TAX4361          TAY6397 and      TAY7880
TAX3539 and TAX3331          TAX6533 and    TAX6454          TAY6A98 and      TAY7880
TAI3536 and TAX5648          TAM6335 and    TAX6263          TAW4001 and      TAW4401
TAI3541 and TAX4438          TAX6539 and    TAX6556          TAW5003 and      TAW5403
TAX4533 and TAX4539          TAX6560 and    TAX7369          TAW5004 and      TAW5404
TAX4534 and TAX4571          TAX6560 and    TAX6265          TAW5005 and      TAW5405
TAX4538 and TAX4540          TAX6561 and    TAX6366          TAW5006 and      TAW5406
TAM4539 and    TAM3234       TAX6362 and    TAX6367          TAJ5342 and TAJ5353
TAM4539 and    TAM3535       TAX6368 and    DMX6303
TAX5532 and TAX7464          TAX6563 and    TAX7368
TAX5534 and TAX5547          TAX6564 and    TAX5349
TAX4532 and TAX 5551         TAY6D95 and    TAY7880

# Exemptions applicable for BSc Hons (Eng) Study Programme

### Qualifications in English Language

| Qualification | Course exempted |
|---|---|
| G C E (A/L) – Simple pass in General English, or any recognised qualification in Science or Technology/Engineering, at the level of Diploma or Degree, the medium of instruction being English (verification needed) | VTL2001 |

### Qualifications in Mathematics

| Qualification | Courses | | |
|---|---|---|---|
| | Level 3 | Level 4 | Level 5 |
| BSc. With Mathematics at the final year BSc with Applied Mathematics and Pure Mathematics at the final year | MHZ3551 MHZ3552 | | |
| BSc Special Degree in Mathematics | MHZ3551 MHZ3552 | MHZ4553 | MHZ5554 |

### Qualifications in Civil engineering and related disciplines

| Qualification | Courses and Industrial Training modules | | |
|---|---|---|---|
| | Level 3 | Level 4 | Level 5 |
| NCIT (Civil) | CVX3441  DMX3107 | | |
| NAB (Civil) | EEX3410  DMX3401 DMX3305  DMX3107 AGM3203 | | |
| Diploma in Civil Engineering, GITI | CVX3442  CVX3340 | CVX4342 | |
| HNDE (Civil) | EEX3410  MHZ3551 DMX3305  MHZ3552 AGM3203  CVX3441 DMX3401  CVX3442 CVX3340  DMX3107 | CVX4342 CVW4802 | |
| NDET (Civil) | EEX3410  MHZ3551 DMX3305  MHZ3552 AGM3203  CVX3441 DMX3401  CVX3442 CVX3340  DMX3107 | CVX4342 CVW4802 | |
| NDT (Civil) or NDES (Civil) | EEX3410  MHZ3551 DMX3305  MHZ3552 AGM3203  CVX3441 DMX3401  CVX3442 CVX3340  DMX3107 | CVX4342 CVW4802 | |
| BSc (Civil Eng.), General Sir John Kothalawala Defence Academy | EEX3410  MHZ3551 DMX3305  MHZ3552 AGM3203  CVX3441 DMX3401  CVX3442 CVX3340  DMX3107 | CVX4342 CVX4343 CVX4545 CVX4546 CVX4348 | CVX5440 |
| BSc (Surveying Science), Institute of Surveying & Mapping, Diyatalawa | MHZ3551  EEX3410 MHZ3552 | CVX4342 | CVX5440 |
| BSc. Surveying Sciences, Sabaragamuwa University Sri Lanka | MHZ3551  EEX3410 MHZ3552 | CVX4342 | CVX5440 |

Note: Those who have satisfied **only the academic requirements** without **industrial training components** in HNDE (civil), NDET (Civil), NDT (Civil) or NDES (civil) can be granted exemptions as listed, without **Industrial training** courses at Levels 3 & 4

**Qualifications in Electrical/Electronic/Communications/ Computer Engineering/ IT and related disciplines – for interim curriculum students**

| Qualification | Courses | | |
|---|---|---|---|
| | **Level 3** | **Level 4** | **Level 5/6** |
| NCT (Electrical and Electronics) | EEX3410 | | |
| NCIT (Electrical and Electronics) | EEX3410    EEX3336 EEX3331 DMX3107 <br><br> (EEX3351 & EEX4351) or DMX3304 | EEX4331 EEX4332 | |
| NAB Special Apprentice (AIT) – Electrical/Electronic | EEX3410 DMX3107 (EEX3351 & EEX4351) or DMX3304 | EEW4401 or EEW4403 | |
| Diploma in Electronics and Communications, Jaffna College Institute of Technology | DMX3305, AGM3203 EEX3410,  EEX3336 EEX3331, (EEX3351 & EEX4351) or DMX3304 | EEX4331 EEX4332 | |
| Diploma in Computer System Design, (NIBM) | EEX3336, EEX3262, EEX3266, | EEX4347 EEX4362 | |
| Advanced Technician Diploma in Electrical and Electronic Engineering (Level 5 IVQ) | EEX3410 | | |
| Higher Diploma in Computer based Information Systems (NIBM) | EEX3269 | EEX4366 EEX4435 EEY4181 | EEX5467 |
| Higher National Diploma in IT, Advanced Technological Institute | EEX3336 | EEX4435 EEX4347 | |
| NDT (Electrical) or NDES (Power) or HNDE (Electrical Power) | EEX3410 DMX3305 AGM3203 DMX3401 EEX3331 MHZ3551 MHZ3552 DMX3107 | EEX4331 EEX4332 or (EEX4532 & EEX4448) {EEW4403 or (EEW4301 and EEW4502)} | |
| HNDE (Electrical Power) New curriculum from 2014 | EEX3410 DMX3305 AGM3203 DMX3401 EEX3417 EEX3331 MHZ3551 MHZ3552 DMX3107 EEX3336 <br><br> (EEX3351 & EEX4351) or DMX3304 | EEX4331 EEX4332 or (EEX4532 & EEX4448) {EEW4403 or (EEW4301 and EEW4502)} {EEY4182 or EEY4183} | |
| National Diploma in Technology (NDT) – Electronics and Telecommunications with Electrical Installations & Wiring Diagrams | | EEX4434 | |
| NDT++ (Electrical) (2014-2021) | EEX3410 DMX3305 AGM3203 DMX3401 EEX3331 EEX3336 MHZ3551 MHZ3552 | EEX4331 EEX4332 or (EEX4532 & EEX4448) EEX4434 EEX4436 { EEW4403 or (EEW4301 and | |

| | DMX3107<br>(EEX3351 & EEX4351) or<br>DMX3304 | EEW4502)} | |
|---|---|---|---|
| NDES* (Power) (New curriculum) | EEX3410<br>DMX3305<br>AGM3203<br>DMX3401<br>EEX3331<br>EEX3336<br>MHZ3551<br>MHZ3552<br>DMX3107<br>EEX3417<br>(EEX3351 & EEX4351) or<br>DMX3304 | EEX4331<br>EEX4332 or<br>(EEX4532 &<br>EEX4448)<br>EEX4434<br>EEX4436<br>{EEW4403 or<br>(EEW4301 and<br>EEW4502)}<br>{EEY4182 or<br>EEY4183} | |
| NDT (Electronic & telecom.)++ or<br>NDES (Electronics) or<br>NDES (Telecommunication) | EEX3331<br>EEX3410<br>DMX3305<br>AGM3203<br>DMX3401<br>EEX3336<br>MHZ3551<br>MHZ3552<br>DMX3107<br>(EEX3351 & EEX4351) or<br>DMX3304 | EEX4331<br>EEX4332<br>EEX4436<br>{(EEW4301 or<br>EEW4403 )<br>and EEW5403} | |
| NDES* (Electronics) or<br>NDES *(Telecommunication)<br>(New curriculum) | EEX3410<br>EEX3417<br>DMX3305<br>AGM3203<br>DMX3401<br>EEX3331<br>EEX3336<br>MHZ3551<br>MHZ3552<br>DMX3107<br>(EEX3351 & EEX4351) or<br>DMX3304 | EEX4331<br>EEX4332<br>EEX4330<br>EEX4436<br>{(EEW4301 or<br>EEW4403 )<br>and EEW5403}<br><br>(EEY4183 or<br>EEY4182) | |
| HNDE (Electronics) – Before 2014 | EEX3410<br>DMX3305 AGM3203<br>DMX3401<br>EEX3336<br>MHZ3551<br>MHZ3552<br>DMX3107<br>EEX3331<br>(EEX3351 & EEX4351) or<br>DMX3304 | EEX4331<br>EEX4330<br>{(EEW4301 or<br>EEW4403 )<br>and EEW5403} | |
| HNDE (Electronics) New curriculum from 2014 | EEX3410 DMX3305<br>AGM3203 DMX3401<br>MHZ3551 MHZ3552<br>EEX3336 DMX3107<br>EEX3331<br><br>(EEX3351 & EEX4351) or<br>DMX3304 | EEX4331<br>EEX4332<br>EEX4330<br>{(EEW4301 or<br>EEW4403) &<br>EEW5403}<br>(EEY4183 or<br>EEY4182) | |
| National Diploma in Engineering Technology<br>(NDET)-  Electrical/Electronic | EEX3410<br>DMX3305<br>AGM3203<br>DMX3401<br>EEX3336 | | |

| | | | |
|---|---|---|---|
| | DMX3107<br>(EEX3351 & EEX4351) or<br>DMX3304 | | |

*Effective year 2003 onwards **Effective year 2008 onwards

Note: Those who have satisfied **only the academic requirements** without industrial training components in NDT (Electrical), NDT (Electronic & telecom.), HNDE (Electrical Power) and HNDE (Electronics) can be granted exemptions as listed, but without relevant **Industrial training** courses at Levels 3 and 4

## Qualifications in Mechanical/Automobile/Manufacturing Engineering and related disciplines

| Qualification | Courses | | |
|---|---|---|---|
| | **Level 3** | **Level 4** | **Level 5** |
| German Training School- Full Certificate or Full Certificate of Basic Training Programme conducted by the Training Schools of Central Transport Board (Werahara/Borella) | DMX3107 | | |
| National Certificate for Industrial Technicians (NCIT) (Mechanical) | AGM3203   DMX3206<br>DMX3107   DMX3305<br>DMX3203   DMX3401 | DMX4201 | |
| NDT (Mechanical) | AGM3203   DMX3305<br>DMX3107   DMX3401<br>DMX3203   EEX3410<br>DMX3206    MHZ3551<br>DMX3302    MHZ3552<br>DMX3304 | DMX4201<br>DMX4204<br>DMX4205<br>DMX4208<br>DMX4212<br>DMW4801<br>  or DMW4802 | |
| NDT (Chemical) | AGM3203   DMX3305<br>DMX3107   EEX3410<br>DMX3203   DMX3401<br>DMX3206   MHZ3551<br>DMX3302   MHZ3552<br>DMX3304 | DMX4201<br>DMX4204<br>DMX4205 | |
| NDT (Marine) | AGM3203   DMX3305<br>DMX3107   EEX3410<br>DMX3203   DMX3401<br>DMX3206   MHZ3551<br>DMX3302   MHZ3552<br>DMX3304 | DMX4201<br>DMX4204<br>DMX4205 | |
| NDT (Nautical studies & technology) | AGM3203   DMX3401<br>DMX3107   EEX3410<br>DMX3302<br>DMX3305 | DMX4204<br>DMX4205 | |
| NDES (Mechanical - General) | AGM3203   DMX3305<br>DMX3107   DMX3401<br>DMX3203   EEX3410<br>DMX3206   MHZ3551<br>DMX3302   MHZ3552<br>DMX3304 | DMX4201<br>DMX4204<br>DMX4205<br>DMX4212<br>DMW4801<br>  or DMW4802 | |
| HNDE ( Mechanical )-Production Engineering | AGM3203   DMX3305<br>DMX3107   DMX3401<br>DMX3203   EEX3410<br>DMX3206   MHZ3551<br>DMX3302   MHZ3552<br>DMX3304 | DMX4201<br>DMX4204<br>DMX4205<br>DMX4212<br>DMW4801 or<br>DMW4802 | |
| HNDE ( Mechanical )-Automobile Engineering | AGM3203   DMX3305 | DMX4201 | |

| | DMX3107 DMX3401 DMX4204 | | |
| | DMX3203 EEX3410 DMX4205 | | |
| | DMX3206 MHZ3551 DMX4208 | | |
| | DMX3302 MHZ3552 DMW4801 or | | |
| | DMX3304 DMW4802 | | |

| Qualification | Level 3 (and 4) | Level 4 (and 5) | Level 5 (and 6) |
|---|---|---|---|
| HNDE ( Mechanical )-Refrigeration and Air conditioning | AGM3203 DMX3305 DMX4201<br>DMX3107 DMX3401 DMX4204<br>DMX3203 EEX3410 DMX4205<br> DMX3206 MHZ3551 DMW4801<br>DMX3302 MHZ3552  or DMW4802<br>DMX3304 | | |
| NDES (Automobile) | AGM3203 DMX3305 DMX4201<br>DMX3107 DMX3401 DMX4204<br>DMX3203 EEX3410 DMX4205<br>DMX3206 MHZ3551 DMX4208<br>DMX3302 MHZ3552 DMW4801<br>DMX3304 or DMW4802 | | |
| NDES (Marine) | AGM3203 DMX3305 DMX4201<br>DMX3107 DMX3401  DMX4204<br>DMX3203 EEX3410  DMX4205<br>DMX3206 MHZ3551<br>DMX3302 MHZ3552<br>DMX3304 | | |
| BSc (Defense studies) in Aeronautical Engineering | AGM3203 DMX3401<br>DMX3107 EEX3410<br>DMX3304 MHZ3551<br>DMX3305 MHZ3552 | | |

Note: Those who have satisfied **only the academic requirements** without industrial training components in NDT (Mechanical) and HNDE (Mechanical) could be granted exemptions as listed above, but without the relevant **Industrial training** modules at Levels 4 and 5

## Qualifications in Textile and Clothing Engineering and related discipline

| Qualification | Courses | | |
|---|---|---|---|
| | Level 3 (and 4) | Level 4 (and 5) | Level 5 (and 6) |
| Certificate in Textile Technology (One year Fulltime), Textile Training & Services Centre, Ratmalana | TAX3458<br>TAX3459 | TAX4560<br>TAX5551 | |
| Certificate in Textile Technology (One year Fulltime) and Diploma in Technology (Extension Course), Textile Training & Services Centre, Ratmalana | TAX3458<br>TAX3459<br>TAX3331 | TAX4560<br>TAX5551 | |
| Certificate in Textile Dyeing and Printing (Part time) from the Textile Training and Services Centre, Ratmalana | | | TAX5551 |
| Diploma in Textile and Apparel Technology (Part time) , Sri Lanka Institute of Textile and Apparel (SLITA), Rathmalana | | | TAX5551 |
| Diploma in Textile and Apparel Technology (Full time), Sri Lanka Institute of Textile and Apparel (SLITA), Ratmalana | TAX3458<br>TAX3459<br>TAX3331 | TAX4539<br>TAX4540<br>TAX4438<br>TAX4462 | TAX5551<br>TAX5648 |
| Diploma in Textile Technology from the Textile Training and Services Centre, Ratmalana | TAX3458<br>TAX3459 | TAX4560 | TAX5551 |

| | | | |
|---|---|---|---|
| | TAX3331 | | |
| Diploma in Clothing Technology from the Clothing Industry Training Institute, Ratmalana | TAX3331 | TAX4438<br>TAX4539<br>TAX4462<br>TAW4401 | |
| Certificate in Textile Colouration and Finishing (Part time) and Diploma in Textile Colouration and Finishing (Part time) from the Textile Training and Services Centre, Ratmalana | **TAX3458** | | **TAX5551** |
| Certificate in Garment Production Management (Part time) from Clothing Industry Training Institute, Ratmalana | **TAX3331** | | |
| College Diploma in Clothing Technology and Management (Fulltime), Brandix College of Clothing Technology, Ratmalana | TAX3331 | TAX4539<br>TAX4438<br>TAX4540<br>TAX4462<br>TAW4401 | TAX5648 |
| NDT (Textile) (Old Curriculum-till 2007) | DMX3305<br>AGM3203<br>DMX3401<br>EEX3410<br>MHZ3551<br>MHZ3552<br>TAX3458<br>TAX3459<br>(TAX5648 or TAX3331)<br>DMX3107 | TAX4539<br>TAX4560 | TAX5551<br><br>Any two of TAW5403, TAW5404, TAW5405, TAW5406 |
| NDT (Textile) (Old Curriculum-till 2007) without completion of training | DMX3305<br>AGM3203<br>DMX3401<br>EEX3410<br>MHZ3551<br>MHZ3552<br>TAX3458<br>TAX3459<br>(TAX5648 or TAX3331) | TAX4539<br>TAX4560 | TAX5551 |
| NDT (Clothing) (Old Curriculum-till 2007) | DMX3305<br>AGM3203<br>DMX3401<br>EEX3410<br>MHZ3551<br>MHZ3552<br>TAX3458<br>TAX3459<br>DMX3107<br>(TAX5648 or TAX3331) | TAX4539<br>TAX4540<br>TAX4438<br>TAX4462<br>Any two of TAW4401<br>TAW5403<br>TAW5404<br>TAW5405<br>TAW5406 | TAX5551 |
| NDT (Clothing) (Old Curriculum-till 2007) without completion of training | DMX3305<br>AGM3203<br>DMX3401<br>EEX3410<br>MHZ3551<br>MHZ3552<br>TAX3458<br>TAX3459<br>(TAX5648 or TAX3331) | TAX4539<br>TAX4540<br>TAX4462<br>TAX4438 | TAX5551 |

| | | | |
|---|---|---|---|
| *NDT (Textile and Clothing Technology)- From 2007 to 2021 | DMX3305 AGM3203 DMX3401 EEX3410 MHZ3551 MHZ3552 TAX3458 TAX3459 TAX3331 DMX3302 DMX3107 | TAX4539 TAX4540 TAX4560 DMX4204 TAX4438 TAX4462 Any two of TAW4401 TAW5403 TAW5404 TAW5405 TAW5406 | TAX5648 TAX5551 |
| *NDT(Textile and Clothing Technology) – From 2007 to 2021 without completion of training | DMX3305 AGM3203 DMX3401 EEX3410 MHZ3551 MHZ3552 TAX3458 TAX3459 TAX3331 DMX3302 | DMX4204 TAX4539 TAX4540 TAX4438 TAX4560 TAX4462 | TAX5648 TAX5551 |
| NDT (Polymer Technology) | DMX3305 AGM3203 DMX3401 DMX3206 DMX3203 DMX3302 EEX3410 MHZ3551 MHZ3552 DMX3107 | DMX4204 DMX4201 | |
| Diploma in Clothing Manufacture – CITI, Ratmalana | TAX3331 | TAX4539 TAX4438 TAW4401 | TAW5401 |
| Diploma in Polymer Technology – CITI, Ratmalana | | TAX4539 | |
| TAI3540- Pattern construction and TAI5538 – Advanced pattern construction, OUSL | | TAX4462 | |

**Licentiateship of Textile Institute (LTI) Examination /Associate ship of Textile Institutes (ATI) Technology Group Examination**

| Subject | Level 3 | Level 4 | Level 5 |
|---|---|---|---|
| Paper 2 in LTI/Paper 2(a) in ATI – Fibre Technology and Textile Science | TAX3458 | | |
| Paper 3 in LTI /Paper 2 (b) in ATI – Yarn Technology and Yarn preparation | TAX3459 | | |
| Paper 4 in LTI /Paper 2 (c) in ATI- Fabric technology | | TAX4560 | TAX5648 |
| Paper 5 in LTI /Paper 2 (d) in ATI-Dyeing and Finishing Technology | | | TAX5551 |
| Paper 6 in LTI – Textile Testing | | TAX4539 | |
| Paper 11 in LTI – Garment Technology | TAX3331 | | |

Note: Those who have satisfied **only the academic requirements** without industrial training components in NDT (Textile and Clothing Technology) – New Curriculum, NDT (Textile) (Old Curriculum), and NDT (Clothing), (Old Curriculum) can be granted exemptions as listed, but without relevant **Industrial training** courses at Levels 3, 4 and 5.

**Other**

| Abbreviation | Description | Abbreviation | Description |
|---|---|---|---|
| GCE (O/L) | General Certificate in Education (Ordinary Level) | NDET | National Diploma in Engineering Technology |
| GCE (A/L) | General Certificate in Education (Advanced Level) | BIT | Bachelor of Information Technology |
| NDT | National Diploma in Technology | GITI | Galgamuwa Irrigation Training Institute |
| NDES | National Diploma in Engineering Science | NIBM | National Institute of Business Management |
| NDA | National Diploma in Agriculture | IESL | Institution of Engineers Sri Lanka |
| HNDA | Higher National Diploma in Agriculture | EC | Engineering Council, UK |
| NCT | National Certificate in Technology | CEI | Council of Engineering Institutions, UK |
| NCIT | National Certificate for Industrial Technicians | SLITA | Sri Lanka Institute of Textile and Apparel |
| NAB | National Apprenticeship Board | CITI | Clothing Industry Training Institute |
| HNDE | Higher National Diploma in Engineering | | |

# Bachelor of Industrial Studies Honours Degree Study Programme

# Bachelor of Industrial Studies Honours Study Programme

The Bachelor of Industrial Studies Honours Degree Programme of the OUSL is carefully designed in accordance with the requirements of the Sri Lanka Framework (SLQF) especially for persons presently employed in middle level management /technical grades in various industries.

It is also possible for a student to obtain a Higher Diploma in an approved Industrial Studies discipline after successful completion of a required combination of courses and credit requirements.

### Areas of Specialisations

- Agriculture
- Apparel production and management
- Fashion design and product development
- Textile manufacture

### Duration

The minimum duration of the Degree Programme starting from level 3 is 4 years and the maximum number of years a student can spend to complete the degree Programme is twelve years.

### Medium of Instruction

The medium of instruction is English.

### Eligibility for Admission to the Programme of Study

A person seeking admission to the Programme leading to the award of the Degree of Bachelor of Industrial Studies Honours in the specialisations in Apparel Production and Management, or Textile Manufacture or Fashion Design and Product Development shall be required to have,

- Obtained three passes in any stream, at the General Certificate of Education (Advanced Level) Examination, Sri Lanka, in one and the same sitting or,
- Obtained a minimum three credit (C) passes in any three subjects in Cambridge International/Edexcel Advanced Level Examination within three years or,
- Completed the Certificate in Industrial Studies in Apparel technology offered by the Open University of Sri Lanka or,
- Completed the Advanced Certificate in Industrial Studies in Apparel Technology offered by the Open University of Sri Lanka or,
- Obtained the Advanced Certificate in Apparel Technology offered by the Open University of Sri Lanka or
- Completed all courses of any foundation Programme offered by The Open University of Sri Lanka or,
- Obtained the Advanced Certificate in Science with courses from any three disciplines offered by the Open University of Sri Lanka or,
- Secured an equivalent or higher qualification acceptable to the Senate.

A person seeking admission to the Programme leading to the award of the Degree of Bachelor of Industrial Studies Honours in the specialisation in Agriculture shall be required to have,

(1) Obtained three passes from Biology, Chemistry, Physics or Agriculture at the General Certificate in Education (Advanced Level) Examination, Sri Lanka in one and same sitting, or

(2) Obtained a minimum three credit (C) passes for Biology, Physics and Chemistry in Cambridge International/Edexcel Advanced Level Examination within three years or,

(3) Obtained the Advanced Certificate in Science with courses in the disciplines of Biology, Physics and Chemistry offered by the Open University of Sri Lanka or,

(4) Obtained an equivalent or higher qualification acceptable to the Senate.

In order for a student to qualify for the award of the Degree of Bachelor of Industrial Studies Honours, the student has to meet the following requirements.

1. Successful completion of all compulsory courses for the selected specialisation
2. Fulfil the level-wise and category-wise course credits as given in Table 3

### Requirements for the Award of the Higher Diploma

In order for a student to qualify for the award of the Higher Diploma in Industrial Studies, he/she has to meet the following requirements within a maximum of 12 academic years.

**(a)** Obtain passes for all compulsory courses of levels 3 and 4 for the specialisation, including the Industrial Training and

**(b)** Fulfil Level-wise and Category-wise Credit requirements for the Higher Diploma as given Table 4

### Grade Point Average (GPA)

The GPA is computed by considering the courses at levels 4, 5 and 6 totalling to 74 credits for RC. In selecting the courses for the computation of GPA, the following sequence will be followed.

**(a)** Compulsory courses at levels 5 and above

**(b)** Non-compulsory courses at levels 5, and above

**(c)** Compulsory courses at level 4

The Grade Point Average (GPA) is computed using;

for the Revised Curriculum.
The Grade Point Average (GPA) is computed as Follows:

GPA = {∑ (Credit Rating of the Course) * (GPV) + (Part Credit of the Course) * (GPV)}/ 74

**Table 3 – Category-wise and level-wise minimum credits requirements for the Award of Bachelor of Industrial Studies Honours Degree from the academic year 2022/23 (Applicable for Revised Curriculum)**

| Category | Minimum Credits | Maximum Credits |
|---|---|---|
| Engineering (X) | 74 | 88 |
| Industrial (I) | Subject to a minimum of 30 at Level 5 and above of which at least 12 at level 6 | Subject to a minimum of 30 at Level 5 and above of which at least 12 at level 6 |
| Projects (Y) | 8<br>Minimum of 8 credits at level 6 | 11<br>Minimum of 8 credits at level 6 |
| Mathematics (Z) | 8 | 10 |
| General /Humanities (J) | 5 | 6 |
| Management (M) | 10 | 15 |
| Industrial Training (W) | 8 | 8 |
| Computer literacy (K) | 2 | 2 |
| **Total** | 130<br>Subject to a minimum of 60 at Level 5 or above, of which at least 30 at Level 6 | |

**Table 4 – Category-wise and level-wise minimum credits requirements for the Award of the Higher Diploma in Industrial Studies in an approved discipline from the academic year 2022/23 (Applicable for Revised Curriculum)**

| Category | Minimum Credits | Maximum Credits |
|---|---|---|
| Engineering (X)<br>Industrial (I) | 42<br>Subject to a minimum of 15 at Level 4 and above | 46<br>Subject to a minimum of 15 at Level 4 and above |
| Mathematics (Z) | 5 | 9 |
| General (J) | 0 | 4 |
| Management (M) | 7 | 11 |
| Industrial Training (W) | 8 | 8 |
| Computer literacy (K) | 2 | 2 |
| **Total** | 68<br>Subject to a minimum of 30 at Level 4 | |

## Limits for Exemptions

Notwithstanding any exemptions granted for prior qualifications, a student shall acquire, by successful completion in accordance with the Scheme of Assessment, a minimum number of credits as shown below for the awards.

**Table 5 – Minimum number of credits to be obtained by following courses despite exemptions**

| Credit Description | Revised Curriculum |
|---|---|
| **For Degree** | |
| Level 6 (considering all Categories) | 15 |
| Level 6 (considering X, I and Y categories) | 10 |
| Levels 5 and 6 (considering all Categories) | 30 |
| Levels 5 and 6 (considering X, I and Y Categories) | 19 |
| Total (considering all Categories and all levels from 3 to 6) | 65 |

**Table 5 (cont...)**

| Credit Description | Revised Curriculum |
|---|---|
| **For Higher Diploma** | |
| Level 4 (considering all Categories) | 15 |
| Level 4 and above (considering X and I Categories) | 08 |
| Total (considering all Categories and all levels from 3 to 6) | 34 |

A list of qualifications for which exemptions could be claimed is given in Annex.

## Curricula for Different Specialisations

The following pages give the courses for different specialisations for meeting the award requirements under RC.

### Important Notes

1. **Maximum number of credits per academic year and General pre-requisites**

Maximum number of credits a student can register at the Open University of Sri Lanka per academic year 38.

2. **General (J) and Management (M) category courses**

The courses listed under specialisations may not include General (J) and Management (M) category courses unless such courses are compulsory. These have to be selected from the Table below to meet the minimum credit requirements in those course categories.

All the courses of IC have now been discontinued. Therefore, the student needs to register for the alternative courses given in the second column of the Table below.

| Course (IC) | Alternative Course (RC) | Prerequisite |
|---|---|---|
| LLJ3360 Introduction to laws of Sri Lanka | LLJ3245 Introduction to laws of Sri Lanka | None |
| None | MHJ4241 History of Technology* | Pass in 20 credits |
| MHJ5531 The nature of science | MHJ5343 Nature of Science | Pass in 45 credits |
| MHJ5533 Technology, society, and environment | MHJ5342 Technology, Society and Environment | Pass in 45 credits |

3. **Non-compulsory (Elective) Courses**

The students enrolled until the academic year 2017/18 had the provision to register for courses from the "Complete List of Courses" of the Faculty to fulfil the *slack* of a given specialisation. In the RC, recommended elective courses are provided from which the student has to choose courses for the *slack*.

The students who have already completed courses (CA or P) outside the list of recommended courses can count the credits for such courses despite receiving the awards under IC or RC. Now the students are allowed to register only for the courses selected from the recommended elective courses. However, those courses that have been already completed may be considered towards the credit requirements.

4. **Industrial Training Modules**

Students can register for Industrial Training Modules of the RC in the academic year 2023/24.

5. **Fulfilment of Course Category Credits and Compulsory Courses under RC**

The students who aspire to receive awards under the RC need to register for the following courses, except under the conditions mentioned in the remark's column of the following Table, to meet course category credit requirements and compulsory course requirements for awards under RC.

| Course (RC) | Prerequisites | Remarks |
|---|---|---|
| TAK3237 Introduction to Computer Applications | None | None |

# Curriculum for Agriculture Specialisation

**Compulsory Courses**

| Courses | | Pre-requisites |
|---|---|---|
| **Level 3** | | |
| AGI3450 | Land and Soil Tillage Management | None |
| AGI3551 | Agricultural Biology | None |
| AGI3552 | Crop Production and Technology | None |
| AGI3553 | Plant Protection | None |
| AGM3203 | Communication Skills | None |
| AGM3354 | Principles of Economics | None |
| MHZ3458 | Mathematics for Agriculture | None |
| TAK3237 | Introduction to Computer Applications | None |
| **Level 4** | | |
| AGI4555 | Irrigation and Drainage Engineering | AGX4356 (CR) or AGX4540 [CR] |
| AGI4559 | Food and Nutrition | None |
| AGI4460 | Animal Husbandry & Production | None |
| AGI4561 | Postharvest Biology and Technology | AGI3551(P) or AGI3554 (P) |
| AGI4362 | Environmental Agriculture | AGI3551(P), AGX4356(CR) or AGI3554 (P), AGX4540 [CR] |
| AGX4356 | Soil Science | None |
| AGM4363 | Agricultural Marketing | None |
| MHZ4357 | Applied Statistics | Pass in 15 credits in level 3, MHZ3458(CA) or AGZ3538 [CA] |
| **Level 5** | | |
| AGI5364 | Farm Power and Machinery | AGI3450 (P) or AGI3535 [P] |
| AGI5166 | Research Methodology | MHZ3458(P) or AGZ3538 [P] , MHZ4357(CA) or ADU3318 [CA], AGZ5367(CR) or ADU4519 [CR], Pass in 50 credits |
| AGX5565 | Soil Plant and Water Relationship | AGX4356(P) or AGX4540 [P] |
| AGZ5367 | Experimental Design | MHZ3458(P) or AGZ3538 [P] and MHZ4357(CA) or ADU3318 [CA] |
| AGJ5368 | Indigenous Knowledge of Herbal Products | Pass in 45 credits |
| **Level 6** | | |
| AGI6478 | Hydrology and Water Resources | AG14555(P), AGX5565(CR) or AGX4537 [P], AGX5532 [CR] |
| AGM6379 | Agricultural Extension | Pass in 45 credits |
| AGJ6381 | Rural Sociology | Pass in 45 credits |
| AGY6880 | Individual Project (Agriculture) | MHZ3458(P) or AGZ3538 [P], MHZ4357(P) or ADU3318 [P], AGZ5367(CR) or ADU4319 [CR], AGI5166 (CA) or ADU4319 [CA], Pass in 30 credits at level 5 or above. |
| **Industrial Training** | | |
| AGW4401 | Industrial Training I (Agriculture) | AGI3551(P) or AGI3534 [P], AGI3552(P) or AGX4539 [P], Pass in 15 credits at level 3 or above |
| AGW5401 | Industrial Training II (Agriculture) | AGW4401 (P) or AGW4002, Pass in 15 credits at level 4 or above |

**Elective Courses**

| Courses | | Prerequisites |
|---|---|---|
| AGI5569 | Molecular Biology and Biotechnology | AGI3551(P)    or AGI3554 [P] |
| AGI5470 | Food Microbiology | AGI4559(P)  or AGX4531[P] |
| AGI5471 | Animal Biology | None |
| AGI5572 | Fisheries and Aquaculture | None |
| AGI5373 | Agro-Forestry | AGI3551(P), AGX4356(P)  or AGI3554 [P], AGX4540 [P] |
| AGI5274 | Fruit Crops and Cut Flower Production | AGI3553(P), AGI3551(P) or AGX4530[P], AGI3554 [P] |
| AGX5415 | Horticulture and Landscape Technology | AGI3553(P) or AGX4530[P] |
| AGX5376 | Crop Processing | AGI3552(P), AGI4561(P) or AGX4539 [P], AGI3536 [P] |
| AGX5277 | Food Safety and Quality Management Systems | AGI4559(P), AGI4561(P)  or AGX4531 [P], AGI3536 [P] |
| AGM5475 | Economics and Management | AGM3354(P), MHZ3458(P) |
| AGI6582 | Food Processing | AGI4559(P)  or AGX4531 [P], |
| AGI6585 | Applications in Biotechnology | AGI5569(P) or AGI5541 [P] |
| AGI6486 | Field and Laboratory Techniques in Plant Protection | AGI3553(P) or AGX4530 [P] |
| AGX6283 | Ground Water and Resource Management | AGX5565(CA), AGX4356(P) or AGX5532 [CA], AGX4540 [P] |
| AGX6284 | Impacts of Climate Change on Water Resources | AGX5565(CR) and AGX6283 (CR) or AGX5532 [CA]and AGI6232 [CR] |
| AGX6387 | Plantation Crop Technology | AGI3552(P) or AGX4539 [P] |
| AGX6490 | Soil and Water Conservation | AGX4356(P), AGX5565(CR) or AGX4540 [P], AGX5532 [CR] |
| AGX6377* | Precision Agriculture | 68 Credits (P) |

* Not offered in  2023/2024

# Curriculum for Apparel Production & Management Specialisation

## Compulsory Courses

| Course | | Prerequisites |
|---|---|---|
| **Level 3** | | |
| TAX3530 | Fibre to Fabric | None |
| TAX3331 | Garment Analysis and Sewing Machinery | None |
| TAI3332 | Garment Accessories | None |
| TAI3533 | Pattern Construction | None |
| TAM3234 | Basics of Human Resource Management | None |
| TAM3535 | Management Studies | None |
| MHZ3576 | Statistics for Industrial Studies | None |
| TAK3237 | Introduction to Computer Applications | None |
| **Level 4** | | |
| TAX4438 | Production Planning and Organization | 15 credits(P) |
| TAX4539 | Quality Assurance for Textile and Clothing | 15 credits(P) |
| TAX4540 | Garment Manufacture | 15 credits(P), TAX3331(CA) or TAX3539(P) |
| TAX4441 | Knitted Garment Technology | 15 credits(P) |
| TAI4442 | Advanced Pattern Construction | 15 credits(P), TAI3533(P) or TAI3540(P) |
| TAI4243 | Foundation Garments | 15 credits(P), TAX3530(CA) or TAX3537(P), TAI3533(CA) or TAI3540(P), TAX4540(CR) or TAX4538(P) |
| TAI4344 | Industrial Garment Washing and Finishing | 15 credits(P) |
| TAM4445 | Apparel Merchandising | 15 credits(P) |
| TAW4401 | Industrial Training I (Apparel) | TAX3331(P) or TAX3539(P), TAX4438(CR) or TAI3541(P), 15 credits(P) |
| **Level 5** | | |
| TAI5246 | Current Topics in Textile and Clothing | 45 credits(P) |
| TAX5547 | Plant Utilities | 45 credits(P) |
| TAX5648 | Fabric Structure and Analysis | 45 credits(P) |
| TAX5349 | Nonwoven Textiles | 45 credits(P), [TAX3458(P) or TAX3531(P) or TAX3530(P) or TAX3537(P)] |
| MHZ5570 | Quantitative Techniques | 45 credits(P), MHZ3576(P) or TAZ4541(P) or TAZ3536(P) |
| TAW5401 | Industrial Training II (Apparel) | TAW4401(CR) or TAW4001(CA), TAX4540(CA) or TAX4538(P), 15 credits(P) at level 4 and above |
| **Level 6** | | |
| TAX6455 | Fabric Technology | 45 credits(P) at level 4 and above |
| TAX6556 | Ergonomics | 45 credits(P) at level 4 and above |
| TAX6454 | Technical Textiles | 45 credits(P) at level 4 and above |
| TAX6263 | Textile Product Engineering | 45 credits(P) in level 4 and above |
| TAM6457 | Fashion Marketing | 45 credits(P) at level 4 and above |
| TAY6882 | Research Project (Apparel Production) | 45 credits(P) at level 4 and above, TAI5246(CA) or TAI5339(P) |

**Elective Courses**

| Courses | | Prerequisites |
|---|---|---|
| LLJ3245 | Introduction to Laws of Sri Lanka | None |
| MHJ4241 | History of Technology | 20 credits(P) |
| TAX5551 | Textile Colouration | 45 credits(P) |
| TAI5552 | Principles of Fashion Design | 45 credits(P) |
| MHJ5343 | Nature of Science | 45 credits(P) |
| MHJ5342 | Technology, Society and Environment | 45 credits(P) |
| TAJ5353 | History and Traditions of Clothing | 45 credits(P) |
| TAX6367 | Advanced Colouration | 45 credits(P) at level 4 and above, [TAX4571(P) or TAX4534(P) or TAX5551(CA) or TAX4532(P)] |
| TAX6368* | Nano Technology for Textiles | 45 credits(P) at level 4 and above, [TAX3458(P) or TAX3531(P) or TAX3530(P) or TAX3537(P)], [TAX5551(CA) or TAX4532(P) or TAX4571(P) or TAX4534(P)] |

*Not offered in 2023/2024

**Excluded Combinations**

| | |
|---|---|
| TAX3458 and TAX3530 | TAI4371 and TAI5552 |
| TAX3370 and TAX5551 | TAI4472 and TAI5552 |
| TAX4571 and TAX5551 | MHZ3576 and TAZ3536 |
| MHZ5570 and TAZ5550 | |

# Curriculum for Fashion Design and Product Development Specialisation

**Compulsory Courses**

| Courses | Prerequisites |
|---|---|
| **Level 3** | |
| TAX3530 Fibre to Fabric | None |
| TAX3331 Garment Analysis and Sewing Machinery | None |
| TAI3332 Garment Accessories | None |
| TAI3533 Pattern Construction | None |
| TAM3234 Basics of Human Resource Management | None |
| TAM3535 Management Studies | None |
| MHZ3576 Statistics for Industrial Studies | None |
| TAI3270 Fashion Illustration I | None |
| TAK3237 Introduction to Computer Applications | None |
| **Level 4** | |
| TAX4539 Quality Assurance for Textile and Clothing | 15 credits(P) |
| TAX4540 Garment Manufacture | 15 credits(P), TAX3331(CA) or TAX3539(P) |
| TAI4371 Concepts of Fashion | 15 credits(P) |
| TAI4472 Concepts of Fashion Designing | 15 credits(P) |
| TAI4373 Fashion Illustration II | 15 credits(P), TAI3270(CA) or TAJ3346(P) |
| TAI4474 Process of Fashion Designing | 15 credits(P), TAI4472(CR) or TAI3543(P) |
| TAI4442 Advanced Pattern Construction | 15 credits(P), TAI3533(P) or TAI3540(P) |
| TAI4243 Foundation Garments | 15 credits(P), TAX3530(CA) or TAX3537(P), TAI3533(CA) or TAI3540(P), TAX4540(CR) or TAX4538(P) |
| TAW4402 Industrial Training I (Fashion) | TAI4371(CR) or TAI3342(P), TAI4472(CR) or TAI3543(P), TAX3331(P) or TAX3539(P), Pass in 15 credits |
| **Level 5** | |
| TAI5375 Design Through Draping | 45 credits(P), TAI3533(P) or TAI3540(P) |
| TAI5478 Fashion Design Development | 45 credits(P), TAI4373(P) or TAJ4547(P) |
| TAI5579 Theoretical aspects of visual presentation and exhibition design | 45 credits(P), TAI5478(CR) or TAI5563(P) |
| MHZ5570 Quantitative Techniques | 45 credits(P),  MHZ3576 (P) or TAZ4541(P) or TAZ3536(P) |
| TAY5384 Inspiration of Fashion Designing | 45 credits(P), TAI4373(CA) or TAJ4547(P), TAI4474(CA) or TAI4545(P) |
| TAW5402 Industrial Training II (Fashion Design & Product Development) | TAW4402(CR) or TAW4002(CA), TAX4540(CA) or TAX4538(P), TAI4474(CA) or TAI4545(P), 15 credits(P) at level 4 or above |
| **Level 6** | |
| TAM6457 Fashion Marketing | 45 credits(P) at level 4 and above |
| TAX6556 Ergonomics | 45 credits(P) at level 4 and above |
| TAY6885  Creating and exhibiting fashion products | TAY5384(P) or TAY6390(P), TAI5579(CA) or TAI6869(P), 45 credits(P) at level 4 and 5 |
| TAI6580 Fashion Show Production | 45 credits(P) at level 4 and above, TAI4474(P) or TAI4545(P) |

**Elective Courses**

| Courses | | Prerequisites |
|---|---|---|
| LLJ3245 | Introduction to Laws of Sri Lanka | None |
| MHJ4241 | History of Technology | 20 credits(P) |
| TAX5551 | Textile Colouration | 45 credits(P) |
| TAI5376 | Computer Aided Pattern Drafting | 45 credits(P), TAI3533(P) or TAI3540(P) |
| TAI5277 | Computer Aided Fashion Illustration | 45 credits(P), TAI4472(CA) or TAI3543(P), TAI4373(CA) or TAJ4547(P) |
| MHJ5343 | Nature of Science | 45 credits(P) |
| MHJ5342 | Technology, Society and Environment | 45 credits(P) |
| TAJ5353 | History and Traditions of Clothing | 45 credits(P) |
| TAX6455 | Fabric Technology | 45 credits(P) at level 4 and above |
| TAX6454 | Technical Textiles | 45 credits(P) at level 4 and above |
| TAX6263 | Textile Product Engineering | 45 credits(P) at level 4 and above |
| TAX6367 | Advanced Colouration | 45 credits(P) at level 4 and above, [TAX4571(P) or TAX4534(P) or TAX5551(CA) or TAX4532(P)] |
| TAX6368* | Nano Technology for Textiles | 45 credits(P) at level 4 and above, [TAX3458(P) or TAX3531(P) or TAX3530(P) or TAX3537(P)], [TAX5551(CA) or TAX4532(P) or TAX4571(P) or TAX4534(P)] |

*Not offered in 2023/2024

**Excluded Combinations**

| | |
|---|---|
| TAX3458 and TAX3530 | TAI4371 and TAI5552 |
| TAX3370 and TAX5551 | TAI4472 and TAI5552 |
| TAX4571 and TAX5551 | MHZ3576 and TAZ3536 |
| MHZ5570 and TAZ5550 | |

# Curriculum for Textile Manufacture Specialisation

## Compulsory Courses

| Courses | | Prerequisites |
|---|---|---|
| **Courses** | | **Prerequisites** |
| **Level 3** | | |
| TAX3458 | Fibre Science & Technology | None |
| TAX3459 | Yarn Manufacture I | None |
| TAX3370 | Textile Preparation | None |
| TAX3331 | Garment Analysis and Sewing Machinery | None |
| TAI3332 | Garment Accessories | None |
| MHZ3576 | Statistics for Industrial Studies | None |
| TAM3234 | Basics of Human Resource Management | None |
| TAM3535 | Management Studies | None |
| TAK3237 | Introduction to Computer Applications | None |
| **Level 4** | | |
| TAX4539 | Quality Assurance for Textile and Clothing | 15 credits(P) |
| TAX4540 | Garment Manufacture | 15 credits(P), TAX3331(CA) or TAX3539(P) |
| TAX4560 | Woven Fabric Technology | 15 credits(P) |
| TAX4361 | Knitting Technology | 15 credits(P) |
| TAX4571 | Textile Colouration and Finishing | 15 credits(P), TAX3370(CA) or TAX3534(P) |
| TAI4344 | Industrial Garment Washing and Finishing | 15 credits(P) |
| TAM4445 | Apparel Merchandising | 15 credits(P) |
| **Level 5** | | |
| TAX5648 | Fabric Structure and Analysis | 45 credits(P) |
| TAX5349 | Nonwoven Textiles | 45 credits(P), TAX3458(P) or TAX3531(P) or TAX3530(P) or TAX3537(P) |
| TAX5547 | Plant Utilities | 45 credits(P) |
| TAI5246 | Current topics in Textile   and Clothing | 45 credits(P) |
| TAI5552 | Principles of Fashion Design | 45 credits(P) |
| MHZ5570 | Quantitative Techniques | 45 credits(P),  MHZ3576 (P) or TAZ3536(P) or TAZ4541(P) |
| **Level 6** | | |
| TAX6556 | Ergonomics | 45 credits(P) at level 4 and above |
| TAX6263 | Textile Product Engineering | 45 credits(P) at level 4 and above |
| TAY6883 | Research Project (Textile Manufacture) | 45 credits(P) at level 4 and above, TAI5246(CA) or TAI5339(P) |

## Elective courses

| Courses | | Prerequisites |
|---|---|---|
| LLJ3245 | Introduction to Laws of Sri Lanka | None |
| MHJ4241 | History of Technology | 20 credits(P) |
| TAX4438 | Production Planning and Organisation | 15 credits (P) |
| MHJ5343 | Nature of Science | 45 credits(P) |
| MHJ5342 | Technology, Society and Environment | 45 credits(P) |
| TAJ5353 | History and Traditions of Clothing | 45 credits(P) |
| TAM6457 | Fashion Marketing | 45 credits(P) at level 4 and above |
| TAX6454 | Technical Textiles | 45 credits(P) at level 4 and above |
| TAX6265 | Advanced Weaving Preparation and Machinery | 45 credits(P) at level 4 and above, TAX4560(P) |
| TAX6366 | Yarn Manufacture II | 45 credits(P) at level 4 and above, TAX3459(P)or TAX3532(P) |
| TAX6367 | Advanced Colouration | 45 credits(P) at level 4 and above, [TAX4571(P) or TAX4534(P) or TAX5551(CA) or TAX4532(P)] |
| TAX6368* | Nano Technology for Textiles | 45 credits(P) at level 4 and above, [TAX3458(P) or TAX3531(P) or TAX3530(P) or TAX3537(P)], [TAX5551(CA) or TAX4532(P ) or TAX4571(P) or TAX4534(P)] |

*Not offered in 2023/2024

## Industrial Training

| Industrial Training (Select any 2 out of 5 training courses) | | |
|---|---|---|
| TAW4401 | Industrial Training I (Apparel) | TAX3331(P) or TAX3539(P), TAX4438(CR) or TAI3541(P), 15 credits(P) |
| TAW5403 | Industrial Training II (Yarn Manufacture) | TAX3459(P) or TAX3532(P), 15 credits(P) |
| TAW5404 | Industrial Training II (Weaving) | TAX4560(P), 15 credits(P) |
| TAW5405 | Industrial Training II (Chemical Processing) | TAX5551(CR) or TAX4532(P) or TAX4571(P) or TAX4534(P), 15 credits(P) |
| TAW5406 | Industrial Training II (Knitting) | TAX4361(P) or TAX5562(P), 15 credits(P) |

## Excluded Combinations

TAX3458 and TAX3530          TAI4371 and TAI5552

TAX3370 and TAX5551          TAI4472 and TAI5552

TAX4571 and TAX5551          MHZ3576 and TAZ3536

MHZ5570 and TAZ5550

## Exclusive course combinations for BIS Honours Study Programme

| | | |
|---|---|---|
| TAI3342 and TAI5543 | TAI3543 and TAI5543 | TAX3555 and TAX4560 |
| TAI3539 and TAX3539 | TAX3534 and TAX4532 | TAX4534 and TAX4532 |
| TAX4531 and TAX5562 | TAI4538 and TAX4538 | TAI4371 and TAI5543 |
| TAM4539 and DMM5836 | TAM4539 and TAM5861 | TAI4472 and TAI5543 |
| TAY5553 and TAI5563 | | |

## Exclusive course combinations for BIS Honours Study Programme (additional list)

| | | | | |
|---|---|---|---|---|
| AGI3534 | And | AGI3551 | AGX5532 | And | AGX5565 |
| AGI3535 | And | AGI3450 | AGX6535 | And | AGI6478 |
| AGI3536 | And | AGI4561 | AGJ5540 | And | AGJ5368 |
| AGX4539 | And | AGI3552 | AGM5546 | And | AGM6379 |
| ADU3318 | And | MHZ4357 | AGI5530 | And | AGI5572 |
| AGZ3538 | And | MHZ3458 | AGI5541 | And | AGI5569 |
| AGJ4533 | And | AGJ6381 | AGI6238 | And | AGI5274 |
| AGX4530 | And | AGI3553 | AGX6534 | And | AGI4362 |
| AGX4540 | And | AGX4356 | AGY6D96 | And | AGY6880 |
| ADU4319 | And | AGZ5367 | AGI6539 | And | AGI4460 |
| AGX4531 | And | AGI4559 | AGI6232 | And | AGX6283 |
| AGX4537 | And | AGI4555 | AGI6237 | And | AGX6284 |
| AGM4535 | And | AGM4363 | AGX6536 | And | AGI6582 |
| AGI4538 | And | AGI5471 | AGI6550 | And | AGI6585 |
| AGM4534 | And | AGM5475 | AGW4002 | And | AGW4401 |
| AGX4532 | And | AGX6490 | AGW5002 | And | AGW5401 |
| AGX5543 | And | AGI5364 | | |

| | | | | | |
|---|---|---|---|---|---|
| TAX3531 | And | TAX3458 | TAX4571 | And | TAX5551 |
| TAX3532 | And | TAX3459 | TAI5348 | And | TAI5375 |
| TAX3534 | And | TAX3370 | TAI5354 | And | TAI5376 |
| TAX3537 | And | TAX3530 | TAI5359 | And | TAI5277 |
| TAX3539 | And | TAX3331 | TAX5562 | And | TAX4361 |
| TAI3536 | And | TAX5648 | TAI5563 | And | TAI5478 |
| TAI3538 | And | TAI3332 | TAX6533 | And | TAX6454 |
| TAI3540 | And | TAI3533 | TAX6335 | And | TAX6263 |
| TAI3541 | And | TAX4438 | TAX6539 | And | TAX6556 |
| TAI3342 | And | TAI4371 | TAM6540 | And | TAM6457 |
| TAI3543 | And | TAI4472 | TAI6549 | And | TAI6580 |
| TAJ3346 | And | TAI3270 | TAX6560 | And | TAX7369 |
| TAX4532 | And | TAX5551 | TAX6560 | And | TAX6265 |
| TAX4533 | And | TAX4539 | TAX6561 | And | TAX6366 |
| TAX4534 | And | TAX4571 | TAX6362 | And | TAX6367 |
| TAX4538 | And | TAX4540 | TAX6563 | And | TAX7368 |
| TAM4539 | And | TAM3234 | TAX6564 | And | TAX5349 |
| TAM4539 | And | TAM3535 | TAX6565 | And | TAX6455 |
| TAZ4541 | And | MHZ3576 | TAI6869 | And | TAI5579 |
| TAX4542 | And | TAX4441 | TAY6D95 | And | TAY6882 |
| TAI4545 | And | TAI4474 | TAY6D95 | And | TAY6883 |
| TAJ4547 | And | TAI4373 | TAY6390 | And | TAY5384 |
| TAX5532 | And | TAX7464 | TAY6A96 | And | TAY6882 |
| TAX5534 | And | TAX5547 | TAY6A91 | And | TAY6885 |
| TAI5538 | And | TAI4442 | TAY6397 | And | TAY6882 |

| | | | | | | |
|---|---|---|---|---|---|---|
| TAI5339 | And | TAI5246 | TAY6397 | And | TAY6883 |
| TAM5540 | And | TAM4445 | TAY6A98 | And | TAY6883 |
| TAJ5342 | And | TAJ5353 | TAY6A98 | And | TAY6882 |
| TAI5543 | And | TAI5552 | TAW4001 | And | TAW4401 |
| TAZ5544 | And | MHZ5570 | TAW4002 | And | TAW4402 |
| TAI5345 | And | TAI4243 | TAW5001 | And | TAW5401 |
| TAI5346 | And | TAI4344 | TAW5002 | And | TAW5402 |
| TAX3458 | And | TAX3530 | TAW5003 | And | TAW5403 |
| TAX3370 | And | TAX5551 | TAW5004 | And | TAW5404 |
| TAX4571 | And | TAX5551 | TAW5005 | And | TAW5405 |
| TAI4371 | And | TAI5552 | TAW5006 | And | TAW5406 |
| TAI4472 | And | TAI5552 | TAX4531 | And | TAX5562 |
| TAI3342 | And | TAI5543 | TAZ3536 | And | MHZ3576 |
| TAI3543 | And | TAI5543 | TAZ5550 | And | MHZ5570 |

| | | |
|---|---|---|
| MHJ5531 | And | MHJ5342 |
| MHJ5533 | And | MHJ5343 |
| LLJ3245 | And | LLJ3360 |

# Exemptions applicable for BIS Honours Study Programme

## Qualifications in English Language

| Qualification | Course exempted |
|---|---|
| GCE(A/L) – Simple pass in General English, or any recognised qualification in Science or Technology/Engineering, at the level of Diploma or Degree, the medium of instruction being English (verification needed) | VTL2001 |

## Qualifications in Textile/Apparel and related disciplines

[Applicable for Higher Diploma or Honours degree in Industrial Studies – Apparel Production and Management, Textile Manufacture and Fashion Design and Product Development]

| Qualification | Courses exempted | | |
|---|---|---|---|
| | Level 3 (and 4) | Level 4 (and 5) | Level 5 & 6 |
| Certificate in Textile Technology (One year Fulltime) and Diploma in Technology (Extension Course), Textile Training & Services Centre. | TAX3458 TAX3530 TAX3331 TAX3459 <br><br> [TAX3370 and TAX4571] or TAX5551 | TAX4560 | |
| Certificate in Fabric Technology (Part time) from the Textile Training and Services Centre. | TAX3530 | | |
| Certificate in Textile Dyeing and Printing (Part time) from the Textile Training and Services Centre. | [TAX3370 and TAX4571] or TAX5551 | | |
| Diploma in Textile Technology from the Textile Training and Services Centre. | TAX3458 <br> TAX3459 TAX3331 <br> TAX3370 TAX3530 | TAX4571 <br> TAX4560 | |
| Certificate in Textile Colouration and Finishing (Part time) and Diploma in Textile Colouration and Finishing (Part time) from the Textile Training and Services Centre. | TAX3458 <br> {TAX3370 and TAX4571} or TAX5551 | | |
| Diploma in Clothing Technology, Clothing Industry Training Institute. | TAX3530 TAI3533 <br> TAI3332 TAX3331 | TAX4438 TAW4401 <br> TAX4539 | TAW5401 |
| Certificate in Garment Production Management (Part time) from Clothing Industry Training Institute. | TAX3331 | | |
| College Diploma in Clothing Technology and Management (Fulltime), Brandix College of Clothing Technology. | TAX3530 TAX3331 <br> TAI3332 TAI3533 <br> TAM3234 <br> TAM3535 <br> MHZ3576 | TAX4438 TAW4401 <br> TAX4539 <br> TAX4540 <br> TAI4442 | TAX5648 |
| Diploma in Textile and Apparel Technology (Full time), Sri Lanka Institute of Textile and Apparel (SLITA) - (Only for the Apparel Production and Management and Fashion Design & Product Development streams) | TAX3530 TAX3331 <br> TAI3332 TAI3533 <br> TAM3234 <br> TAM3535 <br> MHZ3576 | TAX4539 <br> TAX4540 <br> TAX4438 <br> TAI4442 | TAX5648 <br> TAX5551 |

| Qualification | Level 3 (and 4) | | Level 4 (and 5) | | Level 5 & 6 |
|---|---|---|---|---|---|
| Diploma in Textile and Apparel Technology (Full time after 2015), Sri Lanka Institute of Textile and Apparel (SLITA) - (Only for Apparel production and management stream and Fashion Design and Product Development stream) | TAX3530 TAI3332 MHZ3576 | | TAX4539 TAX4438 | | |
| Diploma in Textile and Apparel Technology (Full time), Sri Lanka Institute of Textile and Apparel (SLITA) - (Only for Textile manufacture stream | TAX3458 TAX3331 TAX3459 TAX3370 | TAM3234 TAM3535 MHZ3576 | TAX4539 | | TAX5648 |
| Diploma in Textile and Apparel Technology (Full time after 2015), Sri Lanka Institute of Textile and Apparel (SLITA) - (Only for Textile manufacture stream | TAX3458 TAX3459 TAX3370 MHZ3576 | | TAX4539 TAX4571 TAX4560 TAX4361 | | |
| Diploma in Textile and Apparel Technology (Part time), Sri Lanka Institute of Textile and Apparel (SLITA). | TAX3530 | | | | TAX5551 |
| Diploma in Lanka Institute of Fashion Technology (LIFT) – (Only for the Fashion Design and Product Development Stream) | TAI3270 | | TAI4474 TAI4373 TAI4371 TAI4472 | | TAI5375 |
| NDT (Textile) (Old Curriculum-till 2007) | TAX3530 TAX3370 TAX3459 | TAX3331 TAX3530 TAK3237 TAM3234 TAM3535 | TAX4539 TAX4571 TAX4560 | [Any two of TAW4401 TAW5403 TAW5404 TAW5405] TAW5406] | TAX5648 TAX5551 |
| NDT (Textile) (Old Curriculum-till 2007) without completion of training | TAX3530 TAX3370 TAX3459 | TAX3331 TAX3530 TAK3237 TAM3234 TAM3535 | TAX4539 TAX4571 TAX4560 | | TAX5648 TAX5551 |
| NDT (Clothing) (Old Curriculum-till 2007) | TAX3530 TAX3458 TAX3370 TAX3331 TAM3234 TAM3535 | TAX3530 TAI3332 TAI3533 TAK3237 | TAX4539 TAX4571 TAX4540 TAI4442 TAX4438 | [Any two of TAW4401 TAW5401 TAW5403 TAW5404 TAW5405 TAW5406] | TAX5648 TAX5551 |
| NDT (Clothing) (Old Curriculum-till 2007) without completion of training | TAX3530 TAX3370 TAX3331 TAX3458 | TAX3530 TAI3332 TAX3331 TAI3533 TAK3237 TAM3234 | TAM3535 TAX4539 TAX4540 TAX4438 TAI4442 TAX4571 | | TAX5648 TAX5551 |
| *NDT (Textile and Clothing Technology) – From 2007 to 2021 | TAX3458 TAX3459 TAX3370 TAK3237 | TAX3530 TAI3332 TAX3331 TAI3533 TAM3234 TAM3535 | TAX4539 TAI4442 TAX4571 TAX4540 TAX4560 TAX4438 | [Any two of TAW4401 TAW5401 TAW5403 TAW5404 TAW5405 TAW5406] | TAX5648 TAX5551 |

| Qualification | Courses exempted | | |
|---|---|---|---|
| | Level 3 (and 4) | Level 4 (and 5) | Level 5 & 6 |
| *NDT (Textile and Clothing Technology) – From 2007 to 2021 Without completion of training | TAX3458  TAX3530<br>TAX3459  TAI3332<br>TAX3370  TAX3331<br>TAM3234  TAI3533<br>TAM3535  TAK3237 | TAX4539<br>TAX4571<br>TAX4540<br>TAX4560<br>TAX4438<br>TAI4442 | TAX5648<br>TAX5551 |
| Diploma in Clothing Manufacture – CITI | TAX3530<br>TAX3331<br>TAI3533 | TAX4438<br>TAX4539<br>TAW4401 | TAW5401 |
| BSc (Eng) Textile and Clothing, University of Moratuwa | TAM3234  TAX3530<br>TAM3535  TAI3533<br>TAX3458<br>TAX3459<br>TAX3370 | TAX4539<br>TAX4571<br>TAX4560<br>TAI4442<br>AGM4307 | CVM5401<br>DMM6601<br>TAX5648<br>[Any two of<br>TAW4401<br>TAW5403<br>TAW5404<br>TAW5405<br>TAW5406] |
| Licentiateship of Textile Institute (LTI) Examination /Associateship of Textile Institutes (ATI) Technology Group Examination | See below for exemptions for individual papers | | |
| Paper 1 in LTI /Paper 1 (e) in ATI – Textile Technology | TAX3530 | | |
| Paper 2 in LTI/Paper 2(a) in ATI – Fibre Technology and Textile Science | TAX3458 | | |
| Paper 3 in LTI /Paper 2 (b) in ATI – Yarn Technology and Yarn preparation | TAX3459 | | |
| Paper 4 in LTI /Paper 2 (c) in ATI- Fabric technology | | TAX4560 | TAX5648 |
| Paper 5 in LTI /Paper 2 (d) in ATI-Dyeing and Finishing Technology | [TAX3370 and TAX4571] or TAX5551 | | |
| Paper 6 in LTI – Textile Testing | | TAX4539 | |
| Paper 9 in LTI- Quality Management in Textiles | MHZ3576 | | |
| Paper 2 in LTI – Garment Technology | TAX3331 | | |
| Certificate in Industrial Studies (OUSL) | See below for exemptions for individual papers | | |
| TTI2631 Yarn manufacture | TAX3459 | | |
| TTI2632 Weaving | | TAX4560 | TAX5648 |
| TTI2633 Textile Chemical processing | [TAX3370 and TAX4571] or TAX5551 | | |
| TTI3650 Pattern Making | TAI3533 | | |
| Diploma in Technology (Textile Engineering) from the OUSL | TAX3459  TAX3458<br>TAX3530 | TAX4539<br>TAX4560 | TAX5551 |

## Qualifications in Agriculture and related disciplines

[Applicable for Higher Diploma or Honours degree in Industrial Studies Agriculture related disciplines]

| Qualification | Courses exempted | | | |
|---|---|---|---|---|
| | Level 3 | | Level 4 | Level 5 |
| Diploma in Agriculture – Schools of Agriculture or Diploma in Agriculture – Aquinas College | AGI3450 AGI3552 AGM3354 | AGM3203 TAK3237 AGI3553 | AGI4460 AGX4356 AGW4401 | AGW5401 |
| NDT (Agriculture) or National Diploma in Agriculture (NDA) or Higher National Diploma in Agriculture (HNDA)- Department of Technical Education and Training | AGI3450 AGI3552 AGM3354 | AGM3203 TAK3237 AGI3553 | AGI4460 AGX4356 AGW4401 | AGW5401 |
| Diploma in Animal Husbandry, Sri Lanka, School of Animal Husbandry, Department of Animal Production and Health, Welisara | | | AGI4460 | AGI5471 |
| HNDT (Agriculture) – Sri Lanka Institute of Advanced Technological Education | AGI3450 AGI3552 AGM3354 | AGM3203 TAK3237 AGI3553 | AGI4460 AGX4356 AGW4401 | AGW5401 |
| NDT, HNDT, HNDA and NDA in Agriculture - without training | Exemptions granted for NDT, HNDT, HNDA and NDA (Agriculture) except AGW4401 & AGW5401 | | | |

# Bachelor of Software Engineering Honours
# Study Programme

# Degree of Bachelor of Software Engineering Honours Study Programme

### Introduction to the Study Programme

The Bachelor of Software Engineering Honours Degree has been designed carefully according to the requirements of IEEE/ACM guideline and conforms to the requirements of Sri Lanka Qualification Framework (SLQF).

A student could obtain a Higher Diploma in Software Engineering after successful completion of a required combination of courses and credit requirements.

### Duration

The minimum duration of the Honours Degree Programme is 4 years and the maximum number of years a student can spend to complete the degree Programme is twelve (12) years.

### Medium of Instruction

Medium of instruction of the Study Programme is English.

### Eligibility for Admission to the Programme of Study

Please note that these admission requirements are only for the students entering the Study Programme from the academic year 2019/20 onwards.

A person seeking admission to the Programme leading to the award of the Degree of Bachelor of Software Engineering Honours shall be required to possess one of the following qualifications and pass the selection test conducted by the Open University of Sri Lanka.

1. Obtained three passes in General Certificate of Education (Advanced Level) in any stream, excluding General English and General Information Technology subjects or

2. Completed any Advanced Certificate programme offered by the Open University of Sri Lanka, or,

3. Obtained "C" passes for any 3 subjects in Cambridge/Edexcel Advanced Level examination, or,

4. Any other qualification acceptable to the Senate

### Requirements for the Award of the Degree

In order for a student to qualify for the award of the Degree of Bachelor of Software Engineering Honours, S/he has to meet the following requirements within a maximum period of 12 academic years.

1) Obtain passes for all compulsory courses, and

2) Fulfil the Level-wise and Category-wise minimum Credits for the Degree as given in Table 5.

### Requirements for the Award of the Higher Diploma

In order for a student to qualify for the award of the Higher Diploma of Bachelor of Software Engineering Honours, s/he has to meet the following requirements within a maximum period of 12 academic years.

1) Obtain passes for all compulsory courses of levels 3 and 4 for the specialisation, and

2) Fulfil the Level-wise and Category-wise minimum Credits for the Diploma as given in Table 6.

**Table 5 - Category-wise and level-wise minimum credit requirements for the award of the Bachelor of Software Engineering Honours Degree**

| Category | Minimum credits | Maximum credits |
|---|---|---|
| Industrial (I) | 65<br>subject to a minimum of 30 credits being at levels 5 and 6, of which minimum of 15 credits at level 6 | 76<br>subject to a minimum of 30 credits being at levels 5 and 6, of which minimum of 15 credits at level 6 |
| Engineering (X) | | |
| Management (M) | 17, subject to a minimum of 12 at levels 5 or above | 28, subject to a minimum of 12 at levels 5 or above |
| General (J) | 5 | 16 |
| Mathematics (Z) | 12, subject to a minimum of 3 at levels 5 or above | 21, subject to a minimum of 3 at levels 5 or above |
| Project (Y) | 8<br>subject to a minimum of 6 credits being at level 6 | 12<br>subject to a minimum of 6 credits being at level 6 |
| Language (L or E) | 4 | 4 |
| Industrial Training (W) | 8 | 8 |
| Total | 130<br>subject to a minimum of 60 credits being at levels 5 and 6, of which at least 30 credits at level 6. | |

**Table 6 - Category-wise and level-wise minimum credit requirements for the award of the Higher Diploma in Software Engineering**

| Category | Minimum credits | Maximum credits |
|---|---|---|
| Industrial (I) | 30<br>at levels 3 and 4, of which minimum of 15 credits at level 4 | 44<br>subject to a minimum of 30 credits being at levels 3 and 4, of which minimum of 15 credits at level 4 |
| Engineering (X) | | |
| Management (M) | 5, at levels 3 or 4 | 10, subject to minimum 5 at levels 3 or 4 |
| General (J) | 2 | 9 |
| Mathematics (Z) | 9, at levels 3 or 4 | 12, at levels 3 or 4 |
| Project* (Y) | 5 | 9 |
| Industrial Training* (W) | | |
| Language (L or E) | 0 | 4 |
| Total | 65, subjected to a minimum of 30 at level 4 | |

### Limits for Exemptions

Notwithstanding any exemptions granted for prior qualifications, a student shall acquire, by successful completion in accordance with the Scheme of Assessment, a minimum number of credits as shown below for the awards.

**For the Degree:**

Minimum Credit requirements a student shall acquire by successful completion in accordance with the Scheme of Assessment for the award of the Honours Degree are as given below.

1. Level 6 (considering all Categories): 15
2. Levels 5 and 6 (considering all Categories): 30
3. Levels 5 and 6 (considering X, I, Y and Z categories): 20
4. Total (considering all Categories and all levels from 3 to 6): 65

**For the Higher Diploma:**

Minimum Credit requirements a student shall acquire by successful completion in accordance with the Scheme of Assessment for the award of the Higher Diploma are as given below.

1. Level 4 (considering all Categories): 15
2. Level 4 (considering X and I Categories): 8
3. Levels 3 and 4 (considering X, I and Z Categories): 20
4. Total (considering all Categories and all levels from 3, 4 and/or 5): 33

A list of qualifications for which exemptions could be claimed is given in the Annex.

**Criteria of computing Grade Point Average (GPA)**

The GPA shall be computed by considering the courses at levels 4, 5, and 6 totalling to 60 credits (for Interim Curriculum) or 70 credits (for the Revised Curriculum). In selecting the courses for those Credits the following sequence will be followed.

- Compulsory courses at levels 5 and 6
- Non-compulsory courses at levels 5 and 6
- Compulsory courses at level 4 Part Credit of the next course.

In a situation, where exactly required credits cannot be obtained, the courses are selected to the nearest value below seventy (70), and the remainder credit is taken as a Part Credit of the next course.

The Grade Point Average (GPA) is computed as follows:

$$GPA = [\Sigma\ (Credit\ Rating_i * GPV_i) + (Part\ Credit\ Rating_j * GPV_j)] / 70$$

However, the Industrial Training course is not considered when calculating the GPA.

### Important Notes

**Maximum number of credits per academic year and General pre-requisites**

Maximum number of credits a student can register at the Open University of Sri Lanka per academic year 38.

Also note that in addition to the pre-requisites mentioned in the curricula the following pre-requisite (Level Pre-requisites) have to be fulfilled for registering courses.

**For Courses at level 3 or 4:**

{FDE3020[CR] or FDE3023 [CR]} and {LTE3401[CR] or LTE3407[CR] or VTL2001}

**For Courses at level 5 or 6:**

{FDE3020[P] or FDE3023 [P]} and {LTE3401[P] or LTE3407[P] or VTL2001}

## Fulfilment of Course Category Credits and Compulsory Courses under RC

The students who aspire to receive awards under the RC need to register for the following courses, except under the conditions mentioned in the Remarks column of the following Table, to meet course category credit requirements and compulsory course requirements for awards under RC.

| Course (Revised Curriculum) | Prerequisites | Remarks |
|---|---|---|
| EEI4366 Data Modelling and Database Systems | EEI3266(CA), 15 credits | Exempted for EEI5566(P) |
| AGM4307 or AGM4367 Economics and Marketing for Engineers | Pass in 18 credits in Level 3 | Exempted for EEM5860(P) |
| EEI4267 Requirement Engineering | EEX3467(P) OR EEX4467(P) | |
| EEI4346 Web Technology | EEI3346(CR) OR EEI3364(P) | Exempted for EEI4364(P) |
| EEY4189 Software Design in Group | EEX3467(P) OR EEX4467(P), EEI3262(CA) OR EEI4562(CA) OR EEX4562(P) OR EEX4362(CA) OR EEI4362(CA) OR EEI3269(CA), pass in 20 credits | |
| EEI5270 Information Security | EEX3467(P) OR EEX4467(P), EEX4565(P) OR EEX4465(P), 30 credits pass | |
| EEX5362 Performance Modelling | {EEI4364(P) OR EEI3346(P)}, TAZ4261(P)OR MHZ4357(P) OR MHZ4377(P), Pass in 40 credits | |
| CVM5401 or CVN5402 Accounting for Engineers | AGM4307(CA) or AGM4367(CA), Pass in 30 credits | |
| MHJ5342 or MHJ5372 Technology, Society and Environment | 45 credits | Exempted for MHJ5563(P) |
| EEM6202 Professional Practice | Pass in 30 credits at level 3, Pass in 24 credits at level 4 or above | |
| EEI6171 Emerging Technologies | Pass in 60 credits | |
| EEY6189 Research Methodology and Project Identification | {EEX4565(P) OR EEX4465(P)}, Pass in 60 credits | Exempted for EEY6A89(P) |

## Curriculum for Bachelor of Software Engineering Honours Study Programme

All the courses of the IC have been discontinued. If a student needs a course to fulfil the award requirements under IC, such student is required to register for the alternative course/s of the RC given in the second column.

### Compulsory Courses

| Course (IC) | Alternative Course (RC) | Prerequisite |
|---|---|---|
| EEX3363 Introduction to computing | EEX3373 Communications and Computer Technology | EEX4467(P) OR EEX3467(CR), AGM3203 (CR) or AGM 3263(CR) |
| EEZ3361 Mathematics for computing | MHZ3459 Basic Mathematics for Computing | None (prerequisite added for 2023/2024 intake) |
| EEX4565 Data structures and algorithms | EEX4465 Data Structures and Algorithms | EEX3373(CA) OR EEX3363(P), MHZ4360(P) OR MHZ4256(CR), 15 Credits |
| EEX4467 Software engineering concepts | EEX3467 Software Engineering Concepts and Programming | None |
| EEI4562 Object oriented design and programming | EEI3262 Introduction to Object Oriented Programming | None |
| | EEI4362 Object Oriented Design | EEI3262(CA), EEX4467(P) OR EEX3467(CA), 15 credits |
| EEI4364 Networking and web technology | EEI3346 Web Application Development | None |

| | | |
|---|---|---|
| EEI4266 Data modelling and database systems | EEI3266 Information Systems and Data Management | None |
| MHZ4360 Discrete mathematics I | MHZ4256 Mathematics for Computing | None* (pre-requisite added for 2023/2024 intake) |
| TAZ4261 Probability and statistics | MHZ4357 or MHZ4377 Applied Statistics | MHZ3459(CA) OR EEZ3361(CA), Pass 15 Credits in level 3 |
| EEJ4360 Communication skills for Engineers | AGM3203 or AGM3263 Communication Skills | None |
| EEX5563 Computer Architecture and Operating Systems | (Continued to be offered) | EEX3363(P) OR EEX3373(P), 36 credits |
| EEI5361 Human computer interaction | EEI4361 User Experience Engineering | EEX4467(P) OR EEX3467(CA), 15 credits |
| EEI5567 Software quality assurance and testing | EEI5467 Software Testing and Quality Assurance | EEX4467(P) OR EEX3467(P), 20 credits |
| EEM5860 Management and professional issues | AGM4307 or AGM4367 Economics and Marketing for Engineers | None |
| | CVM5402 Accounting for Engineers | AGM4307(CA) or AGM4367(CA), 30 credits pass |
| | DMM6602 Management for Engineers | CVM5402(CA), Pass in 60 credits |
| MHZ5360 Discrete mathematics II | MHZ5355 or MHZ5375 Discrete Mathematics | MHZ4360(P) OR MHZ4256(CA), EEZ3361(P) OR MHZ3459(P) |
| EEI6560 Software project management | EEI6360 Software Project Management | Pass in 60 credits |
| EEI6567 Software architecture and design | EEI6567 Software architecture and design | EEI4562(CA) OR EEX4562(CA) OR EEX4362(CA) OR EEI4362(CA), EEX4467(P) OR EEX3467(P) |
| EEX6563 Software construction | EEX6363 Compiler Construction | EEX4565(P) OR EEX4465(P), MHZ5360(CA) OR MHZ5355(P) OR MHZ5375(P) Pass in, 60 credits |
| EEY6A89 Group Project (Software Engineering) | EEY4189 Software Design in Group | EEX4467(P) OR EEX3467(P), EEI4562(CA) OR EEI3262(CA) OR EEI3269(CA), 26 credits at Level 3 |
| | EEY6189 Research Methodology and Project Identification | {EEX4565(P) OR EEX4465(P)}, Pass in 60 credits |
| | EEY6689 Final Project – Software Engineering | EEI6560(CA) OR EEI6360(CR), EEI6567(CR), EEY6189(CA),Pass in 75 credits |

**New elective courses**

| Course | Pre-requisites |
|---|---|
| EEI3269 Introduction to Mobile Application Development | None |
| EEI3372 Programming in Python | None |
| EEM3366 Introduction to Business Studies | None |
| LLJ3265 Introduction to Laws of Sri Lanka | None |
| EEI4369 Mobile Application Development for Android | EEI3269(CR) OR EEI3369(P) |
| EEX4373 Data Science | EEI4366(CR), EEI3266(CA), Pass in 20 credits |
| MHJ4271 History of Technology | 20 credits |
| EEY4489 Higher Diploma Project – Software Engineering | 45 credits |
| EEI5280 Creative Design | 45 credits |

| Course | Pre-requisites |
|---|---|
| EEX5376 Embedded Systems and Internet of Things | EEI3266(P), EEI3372(P), AGM3203(P) OR AGM3263(P), EEX3363(P) OR EEX3373(P) |
| EEX6377 Principles and Applications of Data Mining | EEX4565(P) OR EEX4465(P), TAZ4261(P) OR MHZ4357(P) OR MHZ4377(P), EEI4366(P), Pass in 45 credits |

*Not offered in 2023/2024

**Levels 5 and 6 Elective Courses**

| Course (IC) | Alternative Course (RC) | Prerequisites |
|---|---|---|
| EEI5566 Advanced database systems | EEI5466 Advanced Database Systems | EEI4266(P) OR EEI3266(P), AGM3263(CR) OR EEJ4360(P) |
| **EEI6561 Electronic Commerce | No alternative course | EEI3346(P) OR EEI4364(P), 15 credits at level 4 or above |
| EEI6565 Artificial intelligence techniques | EEX6340 AI Techniques and Agent Technology | EEX4565(P) OR EEX4465(P), EEX3467(P) OR EEX4467(P), MHZ5375(P) OR MHZ5355(P) |
| | EEX6278 Neural Networks and Fuzzy Logic Applications | EEX3467(P), Pass in 65 credits |

** discontinued from 2020/2021

**Industrial Training module**

| Module (IC) | Alternative Course (RC) | Prerequisites |
|---|---|---|
| EEW5011 Industrial training module (Software Engineering) | EEW5811 | EEX4467(P) OR EEX3467(P), EEI4562(P) OR EEX4562(P) OR |
| for RC students | EEW5811 Industrial Training – Software | EEX4362(P) OR EEI4362(P), EEX4465(P) OR EEX4565(P), Pass in 40 credits |

## Exclusive Course Combinations for BSEHons Study Programme

| Old Course/Training Module | Equivalent course/s or training module/s (Interim) | Equivalent course/s (Revised) |
|---|---|---|
| ECX3163 Introduction to computing | EEX3363 Introduction to Computing | EEX3373 Communications and Computer Technology |
| ECZ3161 Mathematics for computing | EEZ3361 Mathematics for computing | MHZ3459 Basic Mathematics for Computing |
| ECX4265 Data structures and algorithms | EEX4565 Data structures and Algorithms | EEX4465 Data Structures and Algorithms |
| ECX4267 Software engineering concepts | EEX4467 Software engineering concepts | EEX3467 Software Engineering Concepts and Programming |
| ECI4262 Object oriented design and programming | EEI4562 Object oriented design and programming | EEI3262 Introduction to Object Oriented Programming |
| | | EEI4362Object Oriented Design |
| ECI4164 Networking and web technology | EEI4364 Networking and web Technology | EEI3346 Web Application Development |
| ECI4166 Data modelling and database Systems | EEI4266Data modelling and Database systems | EEI3266Information Systems and Data Management |
| MPZ4160 Discrete mathematics I | MHZ4360Discrete mathematics I | MHZ4256Mathematics for Computing |
| TTZ4161 Probability and statistics | TAZ4261Probability and statistics | EEZ4361Probability & Statistics |
| ECJ4160 Communication skills for Engineers | EEJ4360Communication skills for Engineers | AGM3263 Communication Skills |
| ECX5263 Computer organization and | EEX5563 Computer | EEX5563 Computer Architecture and |

| Old Course/Training Module | Equivalent course/s or training module/s (Interim) | Equivalent course/s (Revised) |
|---|---|---|
| operating systems | organization and operating systems | Operating Systems |
| ECI5161Human computer interaction | EEI5361Human computer Interaction | EEI4361User Experience Engineering |
| ECI5267 Software quality assurance and testing | EEI5567 Software quality assurance and testing | EEI5467Software Testing and Quality Assurance |
| ECI5266 Advanced database systems | EEI5566Advanced database Systems | EEI5466Advanced Database Systems |
| ECX5265 Software construction | EEI5565Software construction | EEX6363Compiler Construction |
| MPZ5160 Discrete mathematics II | MHZ5360Discrete mathematics II | MHZ5355 Discrete Mathematics<br>MHZ5375 Discrete Mathematics |
| MPJ5263 Technology, society and Environment | MHJ5563Technology, society and Environment | MHJ5342 Technology, Society and Environment<br><br>MHJ5372 Technology, Society and Environment |
| ECM5360 Management and professional issues | EEM5860Management and professional issues | AGM4307 Economics and Marketing for Engineers<br><br>AGM4367 Economics and Marketing for Engineers |
|  |  | CVM5401 Accounting for Engineers |
|  |  | CVM5402 Accounting for Engineers |
|  |  | DMM6602 Management for Engineers |
| ECX6263 Software construction | EEX6563Software construction | EEX6363 Compiler Construction |
| ECI6260 Software project management | EEI6560 Software project Management | EEI6360 Software Project Management |
| ECI6261 Electronic Commerce | EEI6561Electronic Commerce | No equivalent course |
| ECI6267 Software architecture and design | EEI6567 Software architecture and Design | EEI6567 Software architecture and design |
| ECI6265 Artificial intelligence techniques | EEI6565 Artificial intelligence techniques | EEX6340 AI Techniques and Agent Technology |
|  |  | EEX6278 Neural Networks and Fuzzy Logic Applications |
| ECY6489 Group Project (Software Engineering) | EEY6A89 Group Project (Software Engineering) | EEY6689 Final Project – Software Engineering |
|  |  | EEY6189 Research Methodology and Project Identification |
| ECW4280 Specific Training I (Software Engineering) | EEW4080 Specific Training I (Software Engineering) | EEW5811 Industrial Training – Software |
| ECW4281 Specific Training II (Software Engineering) | EEW4081 Specific Training II (Software Engineering) |  |
| ECW5011 Industrial Training Module (Software Engineering) | EEW5011 Industrial Training Module (Software Engineering) |  |

## Exemptions applicable for BSEHons Study Programme

### Qualifications in English Language and Mathematics

| Qualification | Course exempted |
|---|---|
| G. C. E (A/L) – Simple pass in General English, or any recognized qualification in Science or Technology/Engineering, at the level of Diploma or Degree, the medium of instruction being English (verification needed) | VTL2001 |
| All Qualifications approved by the Senate for LEE3410 or LTE3401 or LTE3407 | LEE3410 or LTE3401 or LTE3407 |
| G. C. E (A/L) – Simple pass in Combined mathematics | MHZ2250 |

**The recommended exemptions are granted to the students who have satisfied the admission requirement to the Programme of Study.**

| Qualification | Courses Exempted |
|---|---|
| Diploma in Technology (OUSL) Civil, Textile, Agriculture | VTI3F00, EEZ3461 |
| Diploma in Technology (OUSL) Electrical, Electronics, Mechanical, Mechatronics | VTI3F00, EEZ3461, EEX3373 |
| Diploma in Technology (OUSL) Computer | VTI3F00, EEZ3461, EEX3373, EEX3467, EEX4465 |
| BSc/BA or equivalent University degree (except specialisation in Computing) | VTI3G00 |
| BCS (British Computer Society) Certificate | VTI3F00, EEX3467, EEX4465 |
| SLIIT (SL Institute of Information Technology) Associate Diploma in IT | VTI3F00, EEX3373, EEI3346, EEI3266 |
| SLIIT (SL Institute of Information Technology) Diploma in IT | VTI3F00, EEX3373, EEI3346, EEI3266, EEX4465, EEX3467 |
| CMA (Certified Management Accountants)– Stage I or II | VTI3G00 |
| CIMA (Chartered Institute of Management Accountants) - Stage I or II | VTI3G00 |
| IBSL (Institute of Bankers of Sri Lanka) Certificate or Advance Certificate in Banking and Finance | VTI3G00 |
| NIBM (National Institute of Business Management) Diploma in Computer System Design (DCSD) (from 2010) | VTI3F00, EEI3346, EEI3266, EEI3262, EEX3373, EEX3467, EEI4362 |
| NIBM (National Institute of Business Management) Higher Diploma in Computer Based Information Systems (HDCBIS) (from 2010) | EEI3269, EEI4346, ECI4366, EEX4465, EEI4369, EEY4189, VTI3F00 |
| NDT(National Diploma in Technology) Electronic & Telecom or NDES(National Diploma in Engineering Sciences) (Old curriculum) | VTI3G00, EEZ3461, EEX3373 |
| Completion of first and second year of NDT in any field | VTI3G00, EEZ3461 |
| NDES (Old curriculum) in any field | VTI3G00, EEZ3461, |
| NDES (New curriculum) in any field except (Electronics, Power or Telecommunication) | VTI3G00, EEZ3461 |
| NDES (Electronics, Power or Telecommunication) (New curriculum) | VTG00, EEZ3461, EEX3373 |
| Completion of 1st and 2nd phases of NDES (New curriculum) 2003 Power, Electronics or Telecommunication | VTI3G00, EEZ3461 |
| NDET (National Diploma in Engineering Technology) (Electrical/Electronic) | VTI3G00, EEX3373 |
| HNDE (Higher National Diploma in Engineering) (Electrical Power/Electronics) | VTI3G00, EEZ3461, EEX3373 |
| NDICT (National Diploma in Information and Communication | VTI3F00, EEX3373 |

| Qualification | Courses Exempted |
|---|---|
| Technology) | |
| Diploma in System Design and Programming, Vocational Training Authority (VTA) | VTI3F00, EEX3373 |
| HNDIT (Higher National Diploma in IT) Semester II | EEX3467, EEX4465, VTI3C01 |
| HNDIT (Higher National Diploma in IT) Semester III | EEI3266, EEI4366, VTI4C00 |
| HNDIT (Higher National Diploma in IT), IT2004 Introduction to Communication and Computer Networks and IT 4103 Web Programming | EEI3346, EEX3373 |
| Higher National Diploma in Information Technology (HND IT), SLIATE, mathematics for Computing &GCE A/L combine mathematics – (new syllabus from 2010) | EEZ3461 |
| HNDIT (Higher National Diploma in IT) Semester III with IT 3103 Object Oriented Analysis and Design | EEI3262, EEI4362 |
| HNDIT (Higher National Diploma in IT), IT4301 Software Testing and IT4303 Software Quality Management | EEI5467 |
| BIT – Bachelor in Information Technology (University of Colombo) 1st year – Diploma in IT | VTI3F00, EEX3373, EEI3266 |
| BIT – Bachelor in Information Technology (University of Colombo) 3rd Semester | EEX3467 |
| BIT – Bachelor in Information Technology (University of Colombo) 2nd year – Higher Diploma in IT | EEI4366, EEX4465 |
| BIT - Bachelor in Information Technology (University of Colombo) | EEZ3461, MHZ4256 |
| BIT - Bachelor in Information Technology (University of Colombo) IT3503 -Web Development Techniquesand IT4503 - Data Communications & Networks | EEI3346, EEI4346 |
| ACS (Australian Computer Society) Diploma in IT (new syllabus from 2006) | VTI3F00, EEX3467 |
| ACS (Australian Computer Society) Diploma in IT (old syllabus) | VTI3G00 |
| OUSL Faculty of Engineering Technology MPZ3230 or MPZ3231 or MHZ3531 | EEZ3461 |
| OUSL Faculty of Engineering Technology MHZ3531 or EEZ3561 | MHZ3459 |
| OUSL Faculty of Engineering Technology EEX3465 or EEX3467 (DIST) | EEX3467 |
| OUSL Faculty of Engineering Technology EEI3364 or EEI3346 (DIST) | EEI3346 |
| OUSL Faculty of Engineering Technology EEX3262 or EEI3262 (DIST) | EEI3262 |
| OUSL Faculty of Engineering Technology EEI3566 or EEI3266 (DIST) | EEI3266 |
| OUSL Faculty of Engineering Technology EEI3368 or EEI3668 (DIST) | EEI3668 |
| OUSL Faculty of Engineering Technology EEI3369 or EEI3269 (DIST) | EEI3269 |
| OUSL Faculty of Engineering Technology EEM3466 or EEM3366 (DIST) | EEM3366 |
| OUSL Faculty of Engineering Technology MPZ4230 or MHZ4530 or EEZ4361 | MHZ4256 |
| OUSL Faculty of Engineering Technology ECX3233 or EEX3533 or EEX3336 | EEX3373 |
| OUSL Faculty of Engineering Technology ECX4235 or EEX4535 | EEX4465 |
| OUSL Faculty of Engineering Technology ECX4237 or ECX4247 or EEX4547 or ECX3217 or EEX3517or EEX3417 | EEX3467 |
| OUSL Faculty of Engineering Technology ECX5236 and ECX5235 | EEX5563 |
| AAT- Association of Accounting Technicians (Sri Lanka) – Stage II or III | VTI3G00 |
| Association of Accounting Technicians – Stage II | 15 |

# Advanced Certificate in Apparel Technology
# Study Programme

# Advanced Certificate in Apparel Technology Programme

This Programme is designed to provide an opportunity to those engaged in the relevant industry to gain an in-depth knowledge in the subject of specialisation.

Advanced Certificate in Apparel Technology Programme is the equivalence to the specialisation offered under the Advanced Certificate in Industrial Studies, The Programme was revised according to the SLQF requirements and renamed as Advanced Certificate in Apparel Technology.

## Eligibility for Admission to the Programme of Study

A person seeking admission to the Programme leading to the award of the Advanced Certificate in Apparel Technology shall be required to have,

1. obtained six (06) passes including mathematics and the first language in the General Certificate of Education (Ordinary Level) Examination, Sri Lanka or,

2. secured an equivalent or higher qualification acceptable to the Senate

## Medium of Instruction

The Programme is offered in both Sinhala and English.

## Requirements for the Award of the Advanced Certificate in Apparel Technology

The OUSL awards the Advanced Certificate in Apparel Technology to students who have acquired 30 credits by completing the courses belonging to the curriculum listed below.

Those who possess appropriate qualifications may seek exemptions from relevant courses of the Programme. However, they still require registering and successfully completing courses for a minimum of 15 credits for the award of the Advanced Certificate in Apparel Technology.

## Curriculum

Course compulsory courses and the course conversions are given in Tables (a) and (b) respectively.

### Table (a) -Level 2 Compulsory Courses

The courses of the Interim Curriculum were discontinued in the Academic Year 2019/20. Instead, the student can enrol for the alternative courses given in the second column of the following Table.

| Courses | Prerequisite |
|---|---|
| TAX2585  Introducing Textiles | None |
| TAI2886    Apparel Technology | None |
| TAI2488    Laboratory Practice and Industrial Exposure | None |
| TAZ2587  Mathematics and Science for Textile Technology | None |
| TAI2289    Introducing Fashion | None |
| TAY2690    Advanced Certificate Project | None |

### Table (b)- Conversions for Curriculum Revision in 2020/21

For the students who have already completed the courses of the IC are converted to the equivalent courses as given in the Table below.

| Course (IC) | Equivalent course/s of Revised curriculum |
|---|---|
| TAZ2535   Mathematics and science for textile and apparel | TAZ2587    Mathematics and Science for Textile Technology |
| TAI2530    Introducing textiles | TAX2585    Introducing Textiles |
| TAI2F34    Apparel technology | TAI2886    Apparel Technology |
| TAI2590    Laboratory practice and industrial exposure | TAI2488    Laboratory Practices and Industrial Exposure |
| -    None | TAI2289    Introducing Fashion |
| -    None | TAY2690    Advanced Certificate Project |

## Exemptions applicable for Advanced Certificate in Apparel Technology Study Programme

| Qualification | Courses exempted |
|---|---|
| • G.C.E.(A/L) Sri Lanka – Combined mathematics   or<br>• G.C.E.(A/L) Sri Lanka – Pure mathematics and Applied mathematics or<br>• G.C.E.(A/L) Sri Lanka – Physics | TAZ2587 |
| Certificate in Fabric Technology (Part time) from the Textile Training and Services Centre. | TAX2585 |
| Certificate in Garment Production Management (Part time) from Clothing Industry Training Institute. | TAI2886 |
| Certificate in Garment Industry Management from Garment Industry Management Institute. | TAI2886 |
| Licentiateship of Textile Institute (LTI) Examination /Associateship of Textile Institutes (ATI) Technology Group Examination - Paper 1 in LTI /Paper 1(e) in ATI (Textile Technology) | TAX2585 |
| Licentiateship of Textile Institute (LTI) Examination - Paper 2 in LTI (Garment Technology) | TAI2886 |

# Annex: Conversion of Courses

The following Tables give the equivalent course/s of the Revised Curriculum to those of the Interim Curriculum. As all the courses of the Interim Curriculum are not available from the academic year 2022/23 onwards, you may register for the equivalent course/s of the Revised Curriculum with the same pre-requisites mentioned in the student **Guidebook 2017/18**, and obtain backward conversions to complete the Higher Diploma and Degree requirements during the academic year 2022/23.

**Please note that the following rules apply in the conversions.**

| Conversion type | Converted Course | |
|---|---|---|
| | Grade | Credit |
| one – one | Acquires the marks of the original course, and grade is determined accordingly. | Credits of the Converted Course/s |
| One – many | All converted courses are assigned the marks of the original course and grades are determined accordingly. | |
| Many – one | Credit based weighted average mark is calculated for original courses and allocated to the converted course. The grade is determined accordingly. | |
| Many – many | Credit based weighted average mark is calculated for original courses and assigned to all converted courses. The grades are determined accordingly. | |

## Courses of Bachelor of Science Honours in Engineering Study Programme

## Courses offered by the Department of Civil Engineering

| Course of the Interim Curriculum | | Course of the Revised Curriculum | |
|---|---|---|---|
| CVX3531 | Structural Analysis & Design I | CVX3441 | Structural Analysis & Design I |
| CVX3532 | Hydraulics & Hydrology | CVX3340 | Introduction to Hydraulics & Hydrology |
| CVX3533 | Surveying I | CVX4342 | Surveying I |
| CVX3534 | Strength of Materials | CVX3442 | Strength of Materials |
| CVX4530 | Soil mechanics & Introduction to Rock Mechanics | CVX4343 | Soil Mechanics |
| CVX4531 | Structural Analysis & Design II | CVX4445 | Structural Analysis and Design II |
| CVX3530 | Construction Materials | CVX4446 | Construction Engineering & Materials |
| CVX4532 | Construction Engineering & Planning | | |
| CVX4533 | Irrigation Engineering | CVX4347 | Irrigation Engineering |
| CVX4534 | Water Supply and Sewerage Engineering | CVX4348 | Water and Wastewater Engineering |
| CVX4535 | Building Engineering | CVX4349 | Building Engineering |
| CVX4536 | Highway Engineering | | None |
| CVX4538 | Quantity Surveying | CVX4350 | Quantity Surveying |
| CVX5530 | Surveying II | CVX5440 | Surveying II |
| CVX5531 | Mechanics of Fluids | CVX4240 | Hydraulic Engineering, I |
| | | CVX4241 | Engineering Hydrology |
| | | CVX5241 | Hydraulic Engineering II |
| | | CVX5242 | Mechanics of Fluids |
| CVX5532 | Engineering Geology | CVX4344 | Engineering Geology |
| CVX5533 | Structural Analysis | CVX5443 | Structural Analysis |
| CVX6530 | Geotechnics | CVX6444 | Geotechnics |
| | | CVX7241 | Geotechnical Design |
| CVX6831 | Construction Engineering & | CVX6546 | Construction Engineering & Management |

| Course of the Interim Curriculum | | Course of the Revised Curriculum | |
|---|---|---|---|
| | Management | | |
| CVX6832 | Structural Design | CVX7640 | Structural Design |
| CVX6533 | Environmental Engineering | CVX6345 | Environmental Engineering |
| CVY6D95 | Individual Project – Type B (Civil) | CVY7880 | Engineering Research Project (Civil) |
| CVY6A96 | Group Project (Civil) | CVY7880 | Engineering Research Project (Civil) |
| CVY6397 | Project Identification & literature survey | CVX6180 | Research Methodology and Project Identification (Civil) |
| CVY6A98 | Individual Project – Type A (Civil) | CVY7880 | Engineering Research Project (Civil) |
| CVW4002 | Industrial Training (Civil diploma) | CVW4802 | Industrial Training (Civil diploma) |
| CVW5003 | Industrial Training (Civil-undergraduate) | CVW6803 | Industrial Training (Civil-undergraduate) |

## Courses offered by the Department of Electrical and Computer Engineering

| Course of the Interim Curriculum | | Course of the Revised Curriculum | |
|---|---|---|---|
| EEX3350 | Electronics I | EEX3351 | Electronics I |
| EEX3510 | Electro Techniques | EEX3410 | Introduction to Electrical Engineering |
| EEX3517 | Software Development for Engineers | EEX3417 | Software Development for Engineers |
| EEX3533 | Communication & IT | EEX3336 | Communications and Computer Technology |
| EEX3531 | Electrical Circuits & Measurements | EEX3331 | Electrical measurements and instrumentation |
| | | EEX4331 | Circuit Theory and Design |
| EEX3532 | Electrical Power | EEX4332 | Electrical Power |
| EEX4530 | Fault Diagnosis in Electronic Circuits | | None |
| EEX4350 | Electronics II | EEX4351 | Electronics II |
| EEX4533 | Communication | EEX4330 | Communications |
| EEX4534 | Electrical Installations | EEX4434 | Electrical Installations |
| EEX4535 | Data Structures and Algorithms | EEX4435 | Data Structures and Algorithms |
| EEX4536 | Microprocessors and Interfacing | EEX4436 | Microprocessors and Interfacing |
| EEX4547 | Software Engineering | EEX4347 | Software Engineering |
| | | EEX3417 | Software Development for Engineers |
| EEX4548 | Electrical Machines | EEX4448 | Electrical Machines |
| EEX4552 | Power Systems I | EEX4542 | Power Systems I |
| EEX4562 | Object Oriented Design and Programming | EEX4362 | Object Oriented Design and Programming |
| EEX5531 | Network theory | EEX7231 | Advanced circuit design and analysis |
| EEX5533 | Communication Theory & Systems | EEX5333 | Communication Theory & Systems |
| EEX5534 | Data Communications | EEX5434 | Data Communications & Networking |
| EEX5535 | Operating systems | EEX5335 | Operating Systems |
| EEX5536 | Computer Architecture | EEX5536 | Computer Architecture |
| EEX5538 | High voltage engineering and electrical machines | EEX5338 | High voltage engineering |
| EEX5543 | Physical &Opto Electronics | EEX6253 | Physical &Opto Electronics |
| EEX5545 | Database management systems | EEX3266 | Information Systems and Data Management |
| | | EEX4366 | Data Modelling and Database Systems |
| EEX5547 | Group work in software development | EEY4181 | Group Project (Computer Engineering) |
| EEX5832 | Power Systems II | EEX5352 | Power Systems II |
| EEX5567 | Software Testing and Quality Assurance | EEX5467 | Software Testing and Quality Assurance |
| EEX6351 | Digital Electronic systems | EEX5351 | Digital Electronic Systems |
| EEX6534 | Digital Signal Processing | EEX7434 | Digital Signal Processing |
| EEX6535 | Compiler Design | EEX6335 | Compiler Design |
| EEX6536 | Processor design | EEX7436 | Processor Design |
| EEX6539 | Wireless Communication | EEX6339 | Wireless Communication |
| EEX6540 | Knowledge engineering | EEX7340 | AI Techniques & Agent Technology |
| | | EEX7241 | Neural Networks & Fuzzy Logic Applications |
| EEX6541 | Field Theory | EEX6441 | Electromagnetism& Wave Propagation |
| EEX6542 | Modern Control Systems | EEX7342 | Advanced Control Engineering |

| Course of the Interim Curriculum | | Course of the Revised Curriculum | |
|---|---|---|---|
| EEX6550 | Analog Electronic Systems | EEX6450 | Analog Electronic Systems & Instrumentation |
| EEX6543 | Microwave Engineering & Applications | EEX7333 | Microwave Devices & Antennas |
| EEX6832 | Power systems planning | EEX7432 | Power systems planning operations and control |
| EEY6D95 | Individual project – Type B (Computer, Electrical, Electronic and Communication) | EEY7881 | Engineering Research Project (Computer Engineering) or |
| | | EEY7882 | Engineering Research Project (Electrical Engineering) or |
| | | EEY7883 | Engineering Research Project (Electronics & Communication Engineering) |
| EEY6A96 | Group project (Computer, Electrical, Electronic and Communication) | EEY7881 | Engineering Research Project (Computer Engineering) or |
| | | EEY7882 | Engineering Research Project (Electrical Engineering) or |
| | | EEY7883 | Engineering Research Project (Electronics & Communication Engineering) |
| EEW3001 | Industrial Training I (Electronics) | EEW4301 | Industrial Training I (Electronics) or |
| | | EEW4403 | Industrial Training I (Electronics & Communications) |
| EEW4001 | Industrial Training II (Software) | EEW5501 | Industrial Training (Computer) |
| EEW4002 | Industrial Training II (Power) | EEW4502 | Industrial Training II (Electrical Power) |
| EEW4003 | Industrial Training II (Communication) | EEW5403 | Industrial Training II (Electronics & Communications) |
| EEW5001 | Industrial Training II (Software-undergraduate) | EEW5501 | Industrial Training (Computer) |
| EEW5002 | Industrial Training II (Power-undergraduate) | EEW6502 | Industrial Training II (Electrical Power-undergraduate) |
| EEW5003 | Industrial Training II (Communication- undergraduate) | EEW5403 | Industrial Training II (Electronics & Communications) |

## Courses offered by the Department of Mechanical Engineering

| Course of the Interim Curriculum | | Course of the Revised Curriculum | |
|---|---|---|---|
| DMX3511 | Communicating Engineering Information | DMX3305 | Engineering Design Graphics |
| | | AGM3203 | Communication Skills |
| DMK3589 | Computer Aided Drafting | | None |
| DMX3512 | Basic Thermo-Fluids | DMX3401 | Fluid Mechanics and Thermodynamics |
| DMX3533 | Workshop Technology | DMX3206 | Introduction to Manufacturing processes |
| | | DMX3203 | Introduction to Engineering Materials |
| DMX3534 | Engineering Drawing | DMX4201 | Advanced Engineering Design Graphics |
| DMX3535 | Thermo-Fluids | DMX3401 | Fluid Mechanics and Thermodynamics |
| DMX3572 | Applied Electronics | DMX3304 | Applied Electronics |
| DMX3573 | Modelling of Mechatronics Systems | | None |
| DMX3574 | Electronics, sensors and actuators | DMX3304 | Applied Electronics |
| DMX3374 | Principles of Design | | None |
| DMK3370 | C Programming | EEX3417 | Software Development for Engineers |
| DMW3001 | Workshop Practice | DMX3107 | Workshop Practice |
| DMX4335 | Production Management | | None |
| DMX4342 | Applied Automotive Electronics | DMX5209 | Automotive Electronics |
| DMX4530 | Production Technology | DMX4212 | Manufacturing Engineering |
| DMX4532 | Automobile Technology | DMX4208 | Automobile Technology |
| DMX4533 | Materials Engineering | DMX3203 | Introduction to Engineering Materials |
| | | DMX5204 | Materials Engineering |
| DMX4543 | Control Systems Engineering | DMX5403 | Control Systems Engineering |
| DMX4571 | Sensors and Actuators | DMX4409 | Sensors |
| | | DMX4410 | Electrical & Pneumatic Machines |
| DMX4572 | Vibration and Fault Diagnosis | DMX4204 | Machine Dynamics |
| DMX4573 | Mechatronics Product Design | DMX5316 | Mechatronics Product Design |
| DMX4575 | Strength of Materials I | DMX4205 | Strength of Materials I |

| Course of the Interim Curriculum | | Course of the Revised Curriculum | |
|---|---|---|---|
| DMX4576 | Mechanics of Machines | DMX3302 | Engineering Mechanics |
| | | DMX4204 | Machine Dynamics |
| DMX4835 | Applied Mechanics and Strength of Materials | DMX3302 | Engineering Mechanics |
| | | DMX4204 | Machine Dynamics |
| | | DMX4205 | Strength of Materials I |
| DMX5531 | Applied Thermodynamics | DMX4202 | Applied Thermodynamics I |
| | | DMX5205 | Applied Thermodynamics II |
| DMX5532 | Strength of Materials II | DMX5302 | Strength of Materials II |
| DMX5533 | Dynamics of Mechanical Systems | DMX5201 | Advanced Engineering Mechanics |
| DMX5570 | Power Electronics & Motor Drives | DMX5313 | Power Electronics & Motor Drives |
| DMX5571 | Machine Vision | DMX5314 | Machine Vision |
| DMX5572 | Materials & Manufacturing Technology | DMX3203 | Introduction to Engineering Materials |
| | | DMX3206 | Introduction to Manufacturing Processes |
| DMX5577 | Machine Design | DMX4306 | Design of Machine Elements |
| | | DMX5307 | Mechanical Engineering Design Project |
| DMM5836 | Management for Engineers | AGM4307 | Economics and Marketing for Engineers |
| | | CVM5401 | Accounting for Engineers |
| | | DMM6601 | Management for Engineers |
| DMK5501 | Computer Aided Drafting and Modeling | | None |
| DMX6570 | Factory Automation | DMX7304 | Factory Automation |
| DMX6571 | Robotics | DMX7303 | Control of Robotic Manipulators |
| DMX6573 | Advanced Control Engineering | DMX5315 | Artificial Intelligence |
| | | DMX6306 | Modern Control Systems |
| | | DMX7306 | Intelligent Control Systems |
| DMX6530 | Mechanics of Materials | | None |
| DMX6531 | Automobile Engineering | DMX5208 | Automobile Engineering |
| DMX6532 | Vehicle Dynamics | DMX5210 | Vehicle Dynamics and Design of Automotive components |
| DMX6534 | Advanced Manufacturing Technology | DMX5212 | Computer Aided Design and Manufacturing |
| DMX6535 | Thermal Power Generation | DMX7301 | Thermal Power Generation |
| DMX6536 | New and Renewable Sources of Energy | DMX7305 | Renewable Sources of Energy |
| DMX6540 | Industrial Engineering | DMX6301 | Industrial Engineering |
| DMX6578 | Fluid Mechanics | DMX4203 | Applied Fluid Dynamics I |
| | | DMX5206 | Applied Fluid Dynamics II |
| DMY6397 | Project Identification and Literature Survey | | None |
| DMY6A98 | Individual Project Type A (Mechanical) | DMY7880 | Engineering Research project (Mechanical) |
| DMY6D95 | Individual Project Type B(Mechanical) | DMY7880 | Engineering Research Project (Mechanical) |
| DMY6A96 | Group Project (Mechanical) | DMY7880 | Engineering Research project (Mechanical) |
| DMY6D73 | Mechatronic Product Design Project (Individual) | DMY7881 | Engineering Research Project (Mechatronics) |
| DMY6A74 | Mechatronic Product Design Project (Group) | DMY7881 | Engineering Research Project (Mechatronics) |
| DMW4002 | Industrial Training I(Mechanical) | DMW4801 | Industrial Training (Mechanical -Diploma) |
| DMW5002 | Industrial Training II (Mechanical) | DMW6801 | Industrial Training (Mechanical – Undergraduate) |
| DMW4003 | Industrial Training I(Mechatronics) | DMW4802 | Industrial Training (Mechanical –Diploma) |
| DMW5003 | Industrial Training II (Mechatronics) | DMW6802 | Industrial Training (Mechanical – Undergraduate) |

## Courses offered by the Department of Textile and Apparel Technology

| Course of the Interim Curriculum | | Course of the Revised Curriculum | |
|---|---|---|---|
| TAX3531 | Fibre science and technology | TAX3458 | Fibre Science and Technology |
| TAX3532 | Yarn manufacture I | TAX3459 | Yarn Manufacture I |

| Course of the Interim Curriculum | | Course of the Revised Curriculum | |
|---|---|---|---|
| TAX3539 | Garment analysis and sewing machinery | TAX3331 | Garment Analysis and Sewing Machinery |
| TAI3536 | Fabric structure and analysis | TAX5648 | Fabric Structure and Analysis |
| TAI3541 | Production planning and organization | TAX4438 | Production Planning and Organization |
| TAX4533 | Quality assurance for textiles and clothing | TAX4539 | Quality Assurance for Textiles and Clothing |
| TAX4534 | Textile colouration and finishing | TAX4571 | Textile Colouration and Finishing |
| TAX4538 | Garment manufacture | TAX4540 | Garment Manufacture |
| TAX4560 | Woven fabric technology | TAX4560 | Woven Fabric Technology |
| TAM4539 | Management studies | TAM3234 | Basics of Human Resource Management |
| | | TAM3535 | Management Studies |
| TAX5532 | Yarn and fabric mechanics | TAX7464 | Yarn and Fabric Mechanics |
| TAX5534 | Plant utilities | TAX5547 | Plant Utilities |
| TAX5560 | Pattern development | TAX4462 | Pattern Development |
| TAX5562 | Knitting technology | TAX4361 | Knitting technology |
| TAM5861 | Textile management and merchandising | AGM4307 Economics and Marketing for Engineers | |
| | | DMM6601 Management for Engineers | |
| TAX6533 | Technical textiles | TAX6454 | Technical Textiles |
| TAM6335 | Textile product engineering | TAX6263 | Textile Product Engineering |
| TAX6539 | Ergonomics | TAX6556 | Ergonomics |
| TAX6560 | Advanced woven fabric technology | TAX7369 | Engineering Aspects of Weaving |
| | | TAX6265 | Advanced Weaving Preparation and Machinery |
| TAX6561 | Yarn manufacture II | TAX6366 | Yarn Manufacture II |
| TAX6362 | Advanced colouration | TAX6367 | Advanced Colouration |
| TAX6563 | Specialty fabrics | TAX7368 | Specialty Fabrics |
| TAX6564 | Nonwoven textiles | TAX5349 | Nonwoven Textiles |
| TAY6D95 | Individual project-Type B (Textile and Apparel) | TAY7880 | Engineering Research Project (Textile and Clothing Engineering) |
| TAY6397 | Project identification and literature survey | TAY7880 | Engineering Research Project (Textile and Clothing Engineering) |
| TAY6A98 | Individual project –Type A (Textile and Apparel) | | |
| TAW4001 | Industrial training (Apparel I) | TAW4401 | Specific Training I (Apparel) |
| TAW5003 | Industrial training (Yarn manufacture) | TAW5403 | Specific Training II (Yarn Manufacture) |
| TAW5004 | Industrial training (Weaving) | TAW5404 | Specific Training II (Weaving) |
| TAW5005 | Industrial training (Chemical processing) | TAW5405 | Specific Training II (Chemical Processing) |
| TAW5006 | Industrial training (Knitting) | TAW5406 | Specific Training II (Knitting) |

## Courses offered by the Department of Mathematics and Philosophy of Engineering

| Course of the Interim Curriculum | | Course of the Revised Curriculum | |
|---|---|---|---|
| MHZ3531 | Engineering mathematics 1A | MHZ3551 | Engineering Mathematics I |
| MHZ3332 | Engineering mathematics 1B | MHZ3552 | Engineering Mathematics II |
| LLJ3360 | Introduction to Laws of Sri Lanka | LLJ3245 | Introduction to Laws of Sri Lanka |
| MHZ4530 | Engineering Mathematics II | MHZ4553 | Engineering Mathematics III |
| MHZ4340 | Discrete Mathematics I | MHZ4256 | Mathematics for Computing |
| MHZ5530 | Engineering Mathematics III | MHZ5554 | Engineering Mathematics IV |
| MHZ5340 | Discrete Mathematics II | MHZ5355 | Discrete Mathematics |
| MHJ5533 | Technology, Society and Environment | MHJ5342 | Technology, Society and Environment |
| MHJ5531 | Nature of Science | MHJ5343 | Nature of Science |

# Courses of Bachelor of Industrial Studies Honours Study Programme

## Courses offered by the Department of Agricultural and Plantation Engineering

| Course of the Interim Curriculum | | Course of the Revised Curriculum | |
|---|---|---|---|
| AGI3534 | Agricultural Biology I | AGI3551 | Agricultural Biology |
| AGI3535 | Land and Soil Tillage Management | AGI3450 | Land and soil Tillage Management |
| AGI3536 | Postharvest biology and Technology I | AGI4561 | Postharvest Biology and Technology |
| AGX4539 | Crop Production and Farming System | AGI3552 | Crop Production Technologies |
| ADU3318 | Bio Statistics | MHZ4357 | Applied Statistics |
| AGZ3538 | Mathematics for Agriculture | MHZ3458 | Mathematics for Agriculture |
| AGJ4533 | Rural Sociology | AGJ6381 | Rural Sociology |
| AGX4530 | Integrated Crop Protection | AGI3553 | Plant Protection |
| AGX4540 | Plant and Soil Science | AGX4356 | Soil Science |
| ADU4319 | Design and Analysis of Experiments | AGZ5367 | Experimental Design |
| AGX4531 | Food and Nutrition | AGI4559 | Food and Nutrition |
| AGX4537 | Irrigation and Drainage Engineering | AGI4555 | Irrigation and Drainage Engineering |
| AGM4535 | Agricultural Marketing | AGM4363 | Agricultural Marketing |
| AGI4538 | Agricultural Biology II | AGI5471 | Animal Biology |
| AGM4534 | Agricultural Economics and Management | AGM5475 | Economics and Management |
| AGX4532 | Soil and Water Conservation | AGX6490 | Soil and Water Conservation |
| AGX5543 | Farm Power and Machinery | AGI5364 | Farm Power and Machinery |
| AGX5532 | Soil Plant and Water Relationship | AGX5565 | Soil Plant and Water Relationship |
| AGX6535 | Hydrology and water Resources | AGI6478 | Hydrology and Water Resources |
| AGJ5540 | Indigenous Knowledge of Herbal Products | AGJ5368 | Indigenous Knowledge of Herbal Products |
| AGM5546 | Agricultural Extension | AGM6379 | Agricultural Extension |
| AGI5530 | Fisheries and Aquaculture | AGI5572 | Fisheries and Aquaculture |
| AGI5541 | Agricultural Biotechnology | AGI5569 | Molecular Biology and Biotechnology |
| AGI6238 | Fruit Crop and Cut Flower Production | AGI5274 | Fruit Crop and Cut Flower Production |
| AGX6534 | Environmental Control In Farm Structures | AGI4362 | Environmental Agriculture |
| AGY6D96 | Individual Project (Agriculture) | AGY6880 | Individual Project (Agriculture) |
| AGI6539 | Animal husbandry and Production | AGI4460 | Animal Husbandry and Production |
| AGI6232 | Ground water resources management | AGX6283 | Ground Water resources Management |
| AGI6237 | Impact of Climate Change on Water resources | AGX6284 | Impacts of Climate Change on Water Resources |
| AGX6536 | Food Processing | AGI6582 | Food Processing |
| AGI6550 | Advanced Biotechnology | AGI6585 | Applications in Biotechnology |
| AGW4002 | Industrial Training I (Agriculture) | AGW4401 | Specific Training I |
| AGW5002 | Industrial Training II (Agriculture) | AGW5401 | Specific Training II |

## Courses offered by the Department of Textile and Apparel Technology

| Course of the Interim Curriculum | | Course of the Revised Curriculum | |
|---|---|---|---|
| TAX3531 | Fibre science and technology | TAX3458 | Fibre Science and Technology |
| TAX3532 | Yarn Manufacture I | TAX3459 | Yarn Manufacture I |
| TAX3534 | Textile preparation | TAX3370 | Textile Preparation |
| TAX3537 | Fibre to fabrics | TAX3530 | Fibre to Fabrics |
| TAX3539 | Garment analysis and sewing machinery | TAX3331 | Garment Analysis and Sewing Machinery |
| TAI3536 | Fabric structure and analysis | TAX5648 | Fabric Structure and Analysis |
| TAI3538 | Garment accessories | TAI3332 | Garment Accessories |
| TAI3540 | Pattern construction | TAI3533 | Pattern Construction |
| TAI3541 | Production planning and organisation | TAX4438 | Production Planning and Organisation |
| TAI3342 | Concept of fashion | TAI4371 | Concept of Fashion |

| Course of the Interim Curriculum | | Course of the Revised Curriculum | |
|---|---|---|---|
| TAI3543 | Concepts of fashion design | TAI4472 | Concepts of Fashion Design |
| TAJ3346 | Fashion illustration I | TAI3270 | Fashion Illustration I |
| TAX4538 | Garment manufacture | TAX4540 | Garment Manufacture |
| TAI4545 | Process of fashion design | TAI4474 | Process of Fashion Design |
| TAX4532 | Textile colouration | TAX5551 | Textile Colouration |
| TAX4533 | Quality assurance for textiles and clothing | TAX4539 | Quality Assurance for Textiles and Clothing |
| TAX4534 | Textile colouration and finishing | TAX4571 | Textile Colouration and Finishing |
| TAX4542 | Knitted garment technology | TAX4441 | Knitted Garment Technology |
| TAX4560 | Woven fabric technology | TAX4560 | Woven Fabric Technology |
| TAZ4541 | Statistics for industrial studies | MHZ3576 | Statistics for Industrial Studies |
| TAJ4547 | Fashion Illustration II | TAI4373 | Fashion Illustration II |
| TAM4539 | Management studies | TAM3234 | Basics of Human Resource Management |
| | | TAM3535 | Management Studies |
| TAX5532 | Yarn and fabric mechanics | TAX7464 | Yarn and Fabric Mechanics |
| TAX5534 | Plant utilities | TAX5547 | Plant Utilities |
| TAX6565 | Fabric technology | TAX6455 | Fabric Technology |
| TAX6564 | Non woven textiles | TAX5349 | Non Woven Textiles |
| TAX6537 | Speciality fabrics | TAX7368 | Speciality Fabrics |
| TAX5562 | Knitting technology | TAX4361 | Knitting Technology |
| TAI5538 | Advanced pattern construction | TAI4442 | Advanced Pattern Construction |
| TAI5339 | Current topics in textiles and clothing | TAI5246 | Current Topics in Textiles and Clothing |
| TAI5543 | Principles of fashion design | TAI5552 | Principles of Fashion Design |
| TAI5345 | Foundation garments | TAI4243 | Foundation Garments |
| TAI5346 | Industrial garment washing and finishing | TAI4344 | Industrial Garment Washing and Finishing |
| TAI5348 | Design through draping | TAI5375 | Design Through Draping |
| TAI5354 | Computer aided pattern drafting | TAI5376 | Computer Aided Pattern Drafting |
| TAI5359 | Computer aided fashion illustration | TAI5277 | Computer Aided Fashion Illustration |
| TAI5563 | Fashion design development | TAI5478 | Fashion Design Development |
| TAZ5544 | Quantitative techniques | MHZ5570 | Quantitative Techniques |
| TAM5540 | Apparel merchandising | TAM4445 | Apparel Merchandising |
| TAJ5342 | History & traditions of clothing | TAJ5353 | History &Traditions of Clothing |
| TAX6533 | Technical textiles | TAX6454 | Technical Textiles |
| TAX6335 | Textile product engineering | TAX6263 | Textile Product Engineering |
| TAX6539 | Ergonomics | TAX6556 | Ergonomics |
| TAX6560 | Advanced woven fabric technology | TAX7369 | Engineering Aspects of Weaving |
| | | TAX6265 | Advanced Weaving Preparation and Machinery |
| TAX6561 | Yarn manufacture II | TAX6366 | Yarn Manufacture II |
| TAX6362 | Advanced colouration | TAX6367 | Advanced Colouration |
| TAX6563 | Speciality fabrics | TAX7368 | Speciality Fabrics |
| TAI6869 | Visual presentation and exhibition design | TAI5579 | Theoretical Aspects of Visual presentation and exhibition design |
| TAI6549 | Fashion show production | TAI6580 | Fashion Show Production |
| AM6540 | Fashion marketing | TAM6457 | Fashion Marketing |
| TAY6D9 5 | Individual project-Type B (Textile and Apparel) | TAY6882 | Research Project (Apparel Production) or |
| | | TAY6883 | Research Project (Textile Manufacture) |
| TAY6390 | Inspiration of fashion design | TAY5284 | Inspiration of Fashion Design |
| TAY6A91 | Creative fashion design | TAY6885 | Creating and Exhibiting Fashion Products |
| TAY6397 | Project identification and literature Survey | TAY6882 | Research Project (Apparel production) or |

| Course of the Interim Curriculum | | Course of the Revised Curriculum | |
| --- | --- | --- | --- |
| TAY6A98 | Individual project –Type A (Textile and Apparel) | TAY6883 | Research Project (Textile Manufacture) |
| TAW4001 | Industrial training (Apparel I) | TAW4401 | Specific Training (Apparel) |
| TAW4002 | Industrial training (Fashion) | TAW4402 | Specific Training I(Fashion) |
| TAW5001 | Industrial training (Apparel II) | TAW5401 | Specific Training II(Apparel) |
| TAW5002 | Industrial training (Fashion design and product development) | TAW5402 | Specific Training II (Fashion Design and Product Development) |
| TAW5003 | Industrial training (Yarn manufacture) | TAW5403 | Specific Training II (Yarn Manufacture) |
| TAW5004 | Industrial training (Weaving) | TAW5404 | Specific Training II(Weaving) |
| TAW5005 | Industrial training (Chemical processing) | TAW5405 | Specific Training II (Chemical Processing) |
| TAW5006 | Industrial training (Knitting) | TAW5406 | Specific Training II(Knitting) |

## Courses offered by the Department of Mathematics and Philosophy of Engineering

| Course of the Interim Curriculum | | Course of the Revised Curriculum | |
| --- | --- | --- | --- |
| LLJ3360 | Introduction to Laws of Sri Lanka | LLJ3245 | Introduction to Laws of Sri Lanka |
| MHJ5533 | Technology, Society and Environment | MHJ5342 | Technology, Society and Environment |
| MHJ5531 | Nature of Science | MHJ5343 | Nature of Science |

# Courses of Bachelor of Software Engineering Honours Study Programme

| Course of the Interim Curriculum | | Course of the Revised Curriculum | |
|---|---|---|---|
| EEX5563 | Computer organization and operating systems | EEX5563 | Computer organization and operating systems |
| EEI5361 | Human computer interaction | EEI4361 | User Experience Engineering |
| EEI5567 | Software quality assurance and testing | EEI5467 | Software Testing and Quality Assurance |
| EEI5566 | Advanced database systems | EEI5466 | Advanced Database Systems |
| EEI5565 | Software construction | EEX6363 | Compiler Construction |
| MHZ5360 | Discrete mathematics II | MHZ5355 | Discrete Mathematics |
| MHJ5563 | Technology, society and environment | MHJ5342 | Technology, Society and Environment |
| EEM5860 | Management and professional issues | AGM4307 | Economics and Marketing for Engineers |
| | | CVM5401 | Accounting for Engineers |
| | | DMM6601 | Management for Engineers |
| EEX6563 | Software construction | EEX6363 | Compiler Construction |
| EEI6560 | Software project management | EEI6360 | Software Project Management |
| EEI6567 | Software architecture and design | EEI6567 | Software architecture and design |
| EEI6565 | Artificial intelligence techniques | EEX6340 | AI Techniques and Agent Technology |
| | | EEX6278 | Neural Networks and Fuzzy Logic Applications |
| EEY6A89 | Group Project (Software Engineering) | EEY6A89 | Final Project – Software Engineering |
| | | EEY4189 | Software Design in Group |
| EEW4080 | Specific Training I (Software Engineering) | EEW5811 | Industrial Training - Software |
| EEW4081 | Specific Training II (Software Engineering) | | |
| EEW5011 | Industrial Training Module (Software Engineering) | EEW5811 | Industrial Training - Software |

| Name | Department |
|---|---|
| Snr. Prof. T. M. Pallewatta (Chairman) | Head of the Department of Civil Engineering |
| Mr. P. K. J. de Mel | Department of Agricultural & Plantation Engineering |
| Mr. D. I. Fernando | Department of Civil Engineering |
| Mr. K. A. R. D. Gunaratne | Department of Electrical & Computer Engineering |
| Mr. M. Warushawithana | Department of Mathematics & Philosophy of Engineering |
| Dr. R. L. K. Lokuliyana | Department of Mechanical Engineering |
| Mrs. T. P. G. N. T. Alwis | Department of Textile & Apparel Technology |
| Mr. Wijikumar Kularasasingam | Assistant Registrar /Faculty of Engineering Technology |

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