



# **The Open University of Sri Lanka**

## **Faculty of Engineering Technology**

Additional Information to the Counsellors  
for  
**Registering New Students**

**Academic Year 2021/22**

Faculty of Engineering Technology  
The Open University of Sri Lanka  
P. O. Box 21, Nawala  
Nugegoda 10250  
Sri Lanka

## **Newly Registering Students (Academic year 2021/22)**

The Curricula given in the Student Guidebook 2021/22 present the courses categorised into different levels (from 3 to 7).

The following tables provide lists of courses that students can register for in **each academic year** so that they could complete the study programme within a predetermined period of academic years. In order to complete a study programme in the specified period of academic years, a student has to fulfil the prerequisites of all the courses at the right time during the specified period of academic years.

*Please note that you can only advise students to register for these course combinations and the final decision should be taken by the students. If they wish to register for any other course combination depending on their requirement, they are allowed to do so.*

### **Admission requirements for the Study Programmes**

- ✓ Strictly adhere to the Admission Qualifications given in the Student Guidebook 2021/22 in enrolling the candidates to Study Programmes
  
- ✓ Do not combine part qualifications and enrol the candidates

# Bachelor of Technology Honours in Engineering

## Agriculture Engineering

### Year 1

Course code	Course Title	Category	Credits
AGX3201	Basic Biology	X	2
CVX3340	Introduction to Hydraulics & Hydrology		3
EEX3410	Introduction to Electrical Engineering		4
EEX3417	Software Development for Engineers		4
EEX3351	Electronics I		3
DMX3401	Fluid Mechanics and Thermodynamics		4
DMX3302	Engineering Mechanics		3
DMX3305	Introduction to Engineering Design Graphics		3
DMX3107	Workshop Practice		1
MHZ3551	Engineering Mathematics I	Z	5
MHZ3552	Engineering Mathematics II		5
AGM3203	Communication Skills	M	2
<b>Total</b>			<b>38</b>

### Year 2

Course code	Course Title	Category	Credits
AGX4404	Crop Technology		4
AGX4405	Postharvest Engineering and Technology I		4
AGX4356	Soil Science		3
CVX4342	Surveying I		3
DMX4205	Strength of Materials I		2
AGX4302	Design of Agricultural Machine Elements		3
AGX4376	Crop Processing Technology		3
AGY4180	Group Project (Agricultural Engineering)	Y	1
MHZ4553	Engineering Mathematics III	Z	5

AGM4307	Economics and Marketing for Engineers	M	3
AGW4401	Industrial Training I	W	4
<b>Total</b>			<b>38</b>

### Year 3

Course code	Course Title	Category	Credits
AGI5206	Food Science		2
AGX5308	Soil Management Tillage and Traction		3
AGX5314	Engineering Design (Agricultural Engineering)		3
AGX5510	Design and Management of Irrigation and Drainage		5
AGX5511	Farm Power and Mechanization		5
MHZ5554	Engineering Mathematics IV	Z	5
AGW5401	Industrial Training II	W	4
CVM 5401	Accounting for Engineers	M	4
	Select 09 credits from the courses given below		
AGX5212	Postharvest Engineering and Technology II	X	2
AGX5277	Food Safety and Quality Management Systems		2
			3
AGX5415	Horticultural Landscaping Technology		4
AGX5565	Soil Plant Water Relationship		5
AGX5309	Sustainable Agricultural Technology		3
	Total		38

### Year 4

Course code	Course Title	Category	Credits
AGX6180	Research Methodology and Project Identification (Agricultural Engineering)	X	1
AGX6387	Plantation Crop Technology		3
AGX7216	Structural Designs for Commercial Farming		2
AGX7417	Agricultural Hydrology		4
AGX7418	Food Engineering		4
AGX7283	Ground Water Resources Management		2

DMM6601	Management for Engineers	M	6
AGY7880	Engineering Research Project (Agricultural Engineering)	Y	8
	Select 10 credits from the courses given below		
AGX6377	Precision Agriculture	X	3
AGX6284	Impact of Climate Change on Water Resources		2
AGX6490	Soil and Water Conservation		4
DMX6302	Energy, Environment and Sustainability		3
CVX7350	Remote Sensing and GIS		3
	Total		38

## Civil Engineering Specialisation

### Year 1

Course code	Course Title	Category	Credits
MHZ3551	Engineering Mathematics I	Z	5
MHZ3552	Engineering Mathematics II		5
EEX3417	Software development for engineers	X	4
DMX3401	Fundamentals of Fluids Mechanics and Thermodynamics		4
EEX3410	Introduction to Electrical Engineering		4
DMX3305	Introduction to Engineering Design Graphics		3
CVX3340	Introduction to Hydraulics & Hydrology		3
CVX3441	Structural Analysis and Design I		4
CVX3442	Strength of Materials		4
AGM3203	Communication skills		M
<b>Total</b>			<b>38</b>

### Year 2

Course code	Course Title	Category	Credits
MHZ4553	Engineering Mathematics III*	Z	5
CVX4240	Hydraulic Engineering I	X	2
CVX4241	Engineering Hydrology		2
CVX4342	Surveying I		3
CVX4343	Soil Mechanics		3
CVX4344	Engineering Geology		3
CVX4545	Structural Analysis and Design II		5
CVX4446	Construction Engineering & Materials		4
DMX3107	Workshop Practice		1
AGM4307	Economics and marketing for Engineers	M	3
Select 02 credits from the courses given below			
LLJ3245	Introduction to laws of Sri Lanka*	J	2
MHJ4241	History of Technology*		2

Select 3 credits from the courses given below			
CVX4347**	Irrigation Engineering	X	3
CVX4348	Water and Wastewater Engineering		3
CVX4349	Building Engineering		3
CVX4350	Quantity Surveying		3
Optional for Higher Diploma Exit			

CVW4802	Industrial Training-(Civil-Diploma)	W	8
CVY4185	Group Project	Y	1
<b>Total</b>			<b>36</b>

\* Not compulsory for higher diploma

\*\*Not offered in 2020/21

### Year 3

Course code	Course Title	Category	Credits
MHZ5554	Engineering Mathematics IV	Z	5
CVX5440	Surveying II	X	4
CVX5241	Hydraulic Engineering II		2
CVX5242	Mechanics of Fluids		2
CVX5443	Structural Analysis		4
CVX6444	Geotechnics		4
CVX6345	Environmental Engineering		3
CVX6546	Construction Engineering and Management		5
CVM5401	Accounting for Engineers		M
Select 03 credits from the courses given below			
MHJ5342	Technology, Society, and Environment	J	3
MHJ5343	Nature of Science		3
<b>Total</b>			<b>36</b>

### Year 4

Course code	Course Title	Category	Credits
DMM6601	Management for Engineers	M	6
CVX6180	Research Methodology and Project Identification	X	1
CVW6803	Industrial Training-(Civil-Undergraduate)	W	8

<b>Total</b>	<b>15</b>
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### Year 5

Course code	Course Title	Category	Credits
CVX7640	Structural Design	X	6
CVX7241	Geotechnical Design		2
CVX7242	Environmental Engineering Design		2
CVY7880	Engineering Research Project (Civil)	Y	8
CVY7385	Comprehensive Design Project (Civil)		3
Select 06 credits from the courses given below			
CVX7343	Bridge Engineering	X	3
CVX7344	Computational Mechanics using Finite Element Methods		3
CVX7345	Highway Engineering and Design		3
CVX7346	Ground Improvement Techniques		3
CVX7347	Applied Engineering Geology and Rock Mechanics		3
CVX7348	Coastal Engineering and Coastal Zone Management		3
CVX7349	Environmental Modelling and Management		3
CVX7350	Remote Sensing and GIS		3
<b>Total</b>			<b>27</b>



## Computer Engineering Specialisation

### Year 1

Course code	Course Title	Category	Credits
MHZ3551	Engineering Mathematics I	Z	5
MHZ3552	Engineering Mathematics II		5
EEX3410	Introduction to Electrical Engineering	X	4
EEX3417	Software Development for Engineers		4
DMX3401	Fluids Mechanics and Thermodynamics		4
DMX3305	Introduction to Engineering Design and Graphics		3
EEX3331	Electrical Measurements and Instrumentation		3
EEX3336	Communications and Computer Technology		3
EEX3351	Electronics I		3
EEX3262	Introduction to Object Oriented Programming		2
AGM3203	Communication Skills		M
<b>Total</b>			<b>38</b>

### Year 2

Course code	Course Title	Category	Credits
MHZ4553	Engineering Mathematics III	Z	5
DMX3107	Workshop Practice	X	1
EEX4331	Circuit Theory and Design		3
EEX4332	Electrical Power		3
EEX4351	Electronics II		3
EEX4347	Software Engineering Concepts		3
EEX4435	Data Structures and Algorithms		4
EEX4436	Microprocessors and Interfacing		4
EEX5360	Signals and Systems		3
AGM4307	Economics and Marketing for Engineers		M
EEY4181	Group Project – Computer Engineering	Y	1
EEW4301	Industrial Training I (Electronics)	W	3
Select at least 2 credits from J			
LLJ3245	Introduction to Laws of Sri Lanka	J	2
MHJ4241	History of Technology		2
<b>Total</b>			<b>38</b>

### Year 3

Course code	Course Title	Category	Credits
MHZ5554	Engineering Mathematics IV	Z	5
MHZ5355	Discrete Mathematics		3
EEX5270	Information Security	X	2
EEX5346	Embedded Systems		3
EEX5351	Digital Electronic Systems		3
EEX5335	Operating Systems		4
EEX5434	Data Communications and Networking		4
EEX5536	Computer Architecture		5
CVM5401	Accounting for Engineers		M
EEM6201	Professional Practice	2	
MHJ5342	Technology, Society and Environment	J	3
<b>Total</b>			<b>37</b>

### Year4

Course code	Course Title	Category	Credits
EEX6335	Compiler Design	X	2
EEX6236	Advanced Computer Architecture		4
EEX6181	Research Methodology and Project Identification - Computer Engineering		1
EEX7337	System Design in Groups		3
EEX7436	Processor Design		4
DMM6601	Management for Engineers	M	6
EEW5501	Industrial Training II (Computer)	W	5
Select 7 credits from X (at least 5 from level 7)			
EEX3372	Programming in Python	X	3
EEX4362	Object Oriented Design and Programming		3
EEX4366	Data Modelling and Database Systems		3
EEX5466	Advanced Database Design		4
EEX5467	Software Testing and Quality Assurance		4
EEX5280	Creative Design		2
EEX7171	Emerging Technologies		1
EEX7241	Neural Networks and Fuzzy Logic Applications		2
EEX7340	AI Techniques and Agent Technology		3
EEX7244	Data Mining		2
<b>Total</b>			<b>31</b>

## Year 5

Course code	Course Title	Category	Credits
EEY7881	Engineering Research Project [Computer Engineering]	Y	8

Note:

1. Students should register for EEW5501 Industrial Training II (Computer) for the award of the Higher Diploma. It is strongly recommended for students to undergo training after the final examination period.
2. MHZ4553 - Engineering Mathematics III is not considered a compulsory course for the award of the Higher Diploma
3. It is strongly recommended to register for EEX3262 Introduction to Object Oriented Programming and EEX7171 Emerging Technologies which are elective courses.

## Electrical Engineering Specialisation

### Year 1

Course code	Course Title	Category	Credits
MHZ3551	Engineering Mathematics I	Z	5
MHZ3552	Engineering Mathematics II		5
EEX3410	Introduction to Electrical Engineering	X	4
EEX3417	Software Development for Engineers		4
DMX3401	Fluids Mechanics and Thermodynamics		4
DMX3305	Introduction to Engineering Design and Graphics		3
EEX3331	Electrical Measurements and Instrumentation		3
EEX3336	Communications and Computer Technology		3
EEX3351	Electronics I		3
AGM3203	Communication Skills	M	2
Select one course with 2 credits			
EEX3262	Introduction to Object Oriented Programming	X	2
EEX3266	Information Systems and Data Management		2
EEX3269	Mobile Application Development for Android		2
<b>Total</b>			<b>38</b>

### Year 2

Course code	Course Title	Category	Credits
MHZ4553	Engineering Mathematics III	Z	5
DMX3107	Workshop Practice	X	1
EEX4331	Circuit Theory and Design		3
EEX4351	Electronics II		3
EEX4434	Electrical Installations		4
EEX4436	Microprocessors and Interfacing		4
EEX4448	Electrical Machines		4
EEX4542	Power Systems I		5
AGM4307	Economics and Marketing for Engineers	M	3
EEY4182	Group Project - Electrical Engineering	Y	1
EEW4301	Industrial Training I (Electronics)	W	3
Select at least 2 credits from J			
LLJ3245	Introduction to Laws of Sri Lanka	J	2
MHJ4241	History of Technology		2
<b>Total</b>			<b>38</b>

Note:

1. Students should register EEW4502-Industrial Training II (Electrical Power) for the award of the Higher Diploma
2. MHZ4553 - Engineering Mathematics III is not considered a compulsory course for the award of the Higher Diploma

### Year3

Course code	Course Title	Category	Credits
MHZ5554	Engineering Mathematics IV	Z	5
EEX5338	High Voltage Engineering	X	3
EEX5348	Electrical Machines and Drives		3
EEX5351	Digital Electronic Systems		3
EEX5352	Power Systems II		3
EEX5453	Power Electronics		4
DMX5403	Control Systems Engineering		4
CVM5401	Accounting for Engineers	M	4
Select at least 3 credits from J and 5 credits from X category			
MHJ5343	Nature of science	J	3
MHJ5342	Technology, Society and Environment		3
EEX5280	Creative Design	X	2
EEX5346	Embedded Systems		3
EEX5434	Data Communications and Networking		4
EEX5360	Signals and Systems		3
EEX5564	Computer Architecture and Operating Systems		5
EEX6253	Physical and Opto-Electronics		2
EEX6450	Analog Electronic Systems and Instrumentation		4
TAX6556	Ergonomics		5
<b>Total</b>			<b>37</b>

### Year 4

Course code	Course Title	Category	Credits
EEX7231	Advanced Circuit Design and Analysis	X	2
EEX7432	Power Systems Planning, Operations, and Control		4
EEX6354	Comprehensive Electrical Engineering Design		3
EEX6441	Electromagnetism and Wave Propagation		4
EEX6182	Research Methodology and Project Identification - Electronics and Communication		1
DMM6601	Management for Engineers	M	6
EEW6502	Industrial Training II (Electrical Power-undergraduate)	W	5
<b>Total</b>			<b>25</b>

## Year 5

Course code	Course Title	Category	Credits
EEY7882	Engineering Research Project [Electrical]	Y	8
Select 6 credits from X category at Level 7			
DMX7301	Thermal Power Generation	X	3
DMX7305	Renewable Sources of Energy		3
EEX7171	Emerging Technologies		1
EEX7342*	Advanced Control Engineering		3
EEX7241	Neural Networks and Fuzzy Logic Applications		2
EEX7353	Power Electronic Applications and Drives		3
Total			14

\*not on offer in 2021/2022

Note:

- Students should register EEW4502 -Industrial Training II (Electrical Power) for the award of the Higher Diploma
- MHZ4553 - Engineering Mathematics III is not considered a compulsory course for the award of the Higher Diploma

## Electronics and Communication Engineering Specialisation

### Year 1

Course code	Course Title	Category	Credits
MHZ3551	Engineering Mathematics I	Z	5
MHZ3552	Engineering Mathematics II		5
EEX3410	Introduction to Electrical Engineering	X	4
EEX3417	Software Development for Engineers		4
DMX3401	Fluids Mechanics and Thermodynamics		4
DMX3305	Introduction to Engineering Design and Graphics		3
EEX3331	Electrical Measurements and Instrumentation		3
EEX3336	Communications and Computer Technology		3
EEX3262	Introduction to Object Oriented Programming		2
EEX3351	Electronics I		3
AGM3203	Communication Skills	M	2
Total			38

### Year 2

Course Code	Course Title	Category	Credits
MHZ4553	Engineering Mathematics III	Z	5
DMX3107	Workshop Practice	X	1
EEX4331	Circuit Theory and Design		3

Course Code	Course Title	Category	Credits
EEX4332	Electrical Power	X	3
EEX4330	Communications		3
EEX4436	Microprocessors and Interfacing		4
EEX4351	Electronics II		3
EEX5434	Data Communications and Networking		4
EEX5360	Signals and Systems		3
EEX5150	Electronic Circuit Design		1
AGM4307	Economics and Marketing for Engineers	M	3
EEY4183	Group Project - Electronics and Communication	Y	1
EEW4403	Industrial Training I (Electronics & Communication)	W	4
<b>Total</b>			<b>38</b>

### Year3

Course Code	Course Title	Category	Credits
MHZ5554	Engineering Mathematics IV	Z	5
EEX5333	Communication Theory and Systems	X	3
EEX5351	Digital Electronic Systems		3
EEX6253	Physical and Opto Electronics		2
EEX6441	Electromagnetism and Wave Propagation		4
DMX5403	Control Systems Engineering		4
EEX5564	Computer Architecture and Operating Systems		5
CVM5401	Accounting for Engineers		M
EEW5403	Industrial Training II (Electronics & Communication)	W	4
Select at least 3 credits from J			
MHJ5343	Nature of Science	J	3
MHJ5342	Technology, Society and Environment		3
<b>Total</b>			<b>37</b>

### Year4

Course code	Course Title	Category	Credits
EEX7355	Comprehensive Electronics Design	X	3
EEX7333	Microwave Devices and Antennas		3
EEX6183	Research Methodology and Project Identification - Electronics and Communication		1
EEX6339	Wireless Communications		3
EEX6450	Analog Electronic Systems and Instrumentation		4
DMM6601	Management for Engineers	M	6

Course code	Course Title	Category	Credits
Select 9 credits from X and 2 credits from J			
EEX7343	Optical Communications	X	3
EEX7436	Processor Design		4
DMX7304	Factory Automation		3
EEX5346	Embedded Systems		3
EEX5280	Creative Design		2
EEX7334	Digital Signal Processing		3
EEX7342*	Advanced Control Engineering		3
EEX7339	Information Theory and Coding		3
EEX7171	Emerging Technologies		1
EEX5453	Power Electronics		4
LLJ3245	Introduction to Laws of Sri Lanka		J
MHJ4241	History of Technology	2	
<b>Total</b>			<b>31</b>

## Year 5

Course code	Course Title	Category	Credits
EEY7883*	Engineering Research Project [ Electronics and Communication Engineering]	Y	8

\*not on offer in 2021/2022

Note:

1. Students should register EEW5403-Industrial Training II (Electronics & Communication) for the award of the Higher Diploma
2. MHZ4553 - Engineering Mathematics III is not considered a compulsory course for the award of the Higher Diploma



## Mechanical Engineering Specialisation

### Year 1

Course code	Course Title	Category	Credits
MHZ3551	Engineering mathematics I	Z	5
MHZ3552	Engineering mathematics II		5
EEX3417	Software development for engineers	X	4
DMX3401	Fluid mechanics and thermodynamics		4
DMX3302	Engineering mechanics		3
DMX3203	Introduction to engineering materials		2
EEX3410	Introduction to electrical engineering		4
DMX3304	Applied electronics		3
DMX3305	Introduction to Engineering design graphics		3
DMX3206	Introduction to manufacturing processes		2
DMX3107	Workshop practice		1
AGM3203	Communication skills		M
<b>Total</b>			<b>38</b>

### Year 2

Course code	Course Title	Category	Credits
MHZ4553	Engineering mathematics III*	Z	5
DMX4201	Advanced engineering design graphics	X	2
DMX4202	Applied thermodynamics I		2
DMX4203	Applied fluid dynamics I		2
DMX4204	Machine dynamics		2
DMX4205	Strength of materials I		2
DMX4306	Design of machine elements		3
EEX4436	Microprocessors and interfacing		4
DMX4307	Electrical machines and motor drives		3
DMX4208	Automobile technology		2
DMX4212	Manufacturing engineering		2
AGM4307	Economics and marketing for engineers	M	3

DMY4101	Group project (mechanical engineering)	Y	1
Select 02 credits from			
LWJ3245	Introduction to laws of Sri Lanka*	J	2
MHJ4241	History of technology*	J	2
<b>Total</b>			<b>35</b>

\* Not compulsory for Higher Diploma

### Year 3 (Students who intend to leave with HigherDiploma)

Course code	Course Title	Category	Credits
DMW4801	Industrial Training (Mechanical)	W	8

### Year 3

Course code	Course Title	Category	Credits
MHZ5554	Engineering mathematics IV	Z	5
DMX5201	Advanced engineering mechanics	X	2
DMX5302	Strength of materials II		3
DMX5403	Control systems engineering		4
DMX5204	Materials engineering		2
DMX5205	Applied thermodynamics II		2
DMX5206	Applied fluid dynamics II		2
DMX5307	Mechanical engineering design project		3
DMX6180	Research methodology and project identification (Mechanical/Mechatronics engineering)		X
CVM5401	Accounting for engineers	M	4
Select three credits from			
MHJ5342	Technology, society and environment	J	3
MHJ5343	Nature of science		3
Select four(4) credits from			
DMX5208	Automobile engineering	X	2
DMX5209	Automotive electronics		2
DMX5210	Vehicle dynamics and design of automotive components		2
DMX5211	Plant maintenance		2
DMX5212	Computer aided design and manufacturing		2
<b>Total</b>			<b>35</b>

## Year 4

Course code	Course Title	Category	Credits
DMX6301	Industrial engineering	X	3
DMX6302	Energy, environment and sustainability		3
DMM6601	Management for engineers	M	6
DMX7301	Thermal power generation	X	3
DMX7402	Analysis of manufacturing systems & processes		4
DMY7880	Engineering research project (mechanical)	Y	8
Select three credits from level 6 & six credits from level 7			
DMX6303	Nano technology	X	3
DMX6305	Computational fluid dynamics		3

Course code	Course Title	Category	Credits
DMX7303	Control of robotics manipulators	X	3
DMX7304	Factory Automation		3
DMX7305	Renewable sources of energy		3
<b>Total</b>			<b>36</b>

## Year 5

Course code	Course Title	Category	Credits
DMW6801	Industrial Training (Mechanical - Undergraduate)	W	8

## Mechatronics Engineering Specialisation

### Year 1

Course code	Course Title	Category	Credits
MHZ3551	Engineering mathematics I	Z	5
MHZ3552	Engineering mathematics II		5
EEX3417	Software development for engineers	X	4
DMX3401	Fluid mechanics and thermodynamics		4
DMX3302	Engineering mechanics		3
DMX3203	Introduction to engineering materials		2
EEX3410	Introduction to electrical engineering		4
DMX3304	Applied electronics		3
DMX3305	Introduction to engineering design graphics		3
DMX3206	Introduction to manufacturing processes		2
DMX3107	Workshop practice		1
AGM3203	Communication skills		M
<b>Total</b>			<b>38</b>

### Year 2

Course code	Course Title	Category	Credits
MHZ4553	Engineering mathematics III *	Z	5
DMX4409	Sensors	X	4
DMX4410	Electrical & pneumatic machines		4
DMX4204	Machine dynamics		2
DMX4205	Strength of materials I		2
DMX4306	Design of machine elements		3
EEX4436	Microprocessors and interfacing		4
DMX4411	Signal processing		4
DMY4102	Group project (Mechatronics engineering)		Y
AGM4307	Economics and marketing for engineers	M	3
Select 02 credits from			
LWJ3245	Introduction to laws of Sri Lanka*	J	2
MHJ4241	History of technology*	J	2
<b>Total</b>			<b>34</b>

\* Not compulsory for higher diploma

### Year 3 (Students who intend to leave with Higher Diploma)

Course code	Course Title	Category	Credits
DMW4802	Industrial Training (Mechatronics - Diploma)	W	8

### Year 3

Course code	Course Title	Category	Credits
MHZ5554	Engineering mathematics IV	Z	5
DMX5201	Advanced engineering mechanics	X	2
DMX5403	Control systems engineering		4
DMX5313	Power electronics and motor drives		3
DMX5314	Machine vision		3
DMX5315	Artificial Intelligent		3
DMX5316	Mechatronics product design		
DMX6801	Research methodology and project identification (Mechanical/Mechatronics engineering)	X	1
CVM5401	Accounting for engineers	M	4

Select three credits from			
MHJ5342	Technology, society and environment	J	3
MHJ5343	Nature of science		3
Recommended elective courses: 6 credits from X category, level 5 or above			
DMX5204	Materials Engineering	X	2
DMX5211	Plant maintenance	X	2
DMX5212	Computer aided design and manufacturing	X	2
<b>Total</b>			<b>37</b>

### Year 4

Course code	Course Title	Category	Credits
DMX6305	Modern control systems	X	3
DMX6306	Micro/ nano electro mechanical systems		3
DMM6601	Management for engineers	M	6
DMX7303	Control of robotics manipulators		3
DMX7304	Factory automation		3
DMX7306	Intelligent control systems		3
DMY7881	Engineering research project (mechatronics)	Y	8
Recommended elective courses: Select total of six credits of which at least three credits from Level 7			
DMX6303	Nano Technology	X	3
DMX6305	Computational fluid dynamics		3
DMX7301	Thermal power generation		3
DMX7305	Renewable sources of energy		3
DMX7402	Analysis of manufacturing systems & processes		4
<b>Total</b>			<b>35</b>

### Year 5

Course code	Course Title	Category	Credits
DMW6802	Industrial Training (Mechatronics - Undergraduate)	W	8

## Textile and Clothing Engineering Specialisation

### Year 1

Course code	Course Title	Category	Credits
MHZ3551	Engineering Mathematics I	Z	5
MHZ3552	Engineering Mathematics II		5
EEX3417	Software Development for Engineers	X	4
DMX3401	Fluid Mechanics and Thermodynamics		4
EEX3410	Introduction to Electrical Engineering		4
DMX3305	Introduction to Engineering Design Graphics		3
TAX3458	Fibre Science and Technology		4
TAX3459	Yarn Manufacture 1		4
TAX3331	Garment Analysis and Sewing Machinery		3
AGM3203	Communication Skills	M	2
<b>Total</b>			<b>38</b>

### Year 2

Course code	Course Title	Category	Credits
MHZ4553	Engineering Mathematics III*	Z	5
TAX4539	Quality Assurance for Textile & Clothing	X	5
TAX4540	Garment Manufacture		5
TAX4560	Woven Fabric Technology		5
TAX4361	Knitting Technology		3
DMX3107	Workshop Practice		1
AGM4307	Economics and Marketing for Engineers		M
TAY4181	Group Project (Textile & Clothing Engineering)	Y	1
Select 4 credits from			
TAX4462	Pattern Development	X	4
TAX4438	Production Planning and Organisation		4
<b>Total</b>			<b>32</b>

\* Not compulsory for Higher Diploma

### Year 3

Course code	Course Title	Category	Credits
MHZ5554	Engineering Mathematics IV	Z	5
DMX5403	Control Systems Engineering	X	4
TAX5551	Textile Colouration		5
TAX5547	Plant Utilities		5
TAX5648	Fabric Structure and Analysis		6
TAX5349	Nonwoven Textiles		3

Course code	Course Title	Category	Credits
TAX6180	Research Methodology and Project Identification (Textile & Clothing Engineering)	X	1
CVM5401	Accounting for Engineers	M	4
<b>Select 5 credits from</b>			
LLJ3245	Introduction to Laws of Sri Lanka	J	2
MHJ4241	History of Technology		2
TAJ5353	History and Traditions of Clothing		3
MHJ5342	Technology, Society and Environment		3
MHJ5343	Nature of Science		3
<b>Total</b>			<b>38</b>

### Year 4

Course code	Course Title	Category	Credits
TAX6556	Ergonomics	X	5
TAX7368	Specialty Fabrics		3
TAX7464	Yarn & Fabric Mechanics		4
TAX7369	Engineering Aspects of Weaving		3
DMM6601	Management for Engineers	M	6
TAY7880	Engineering Research Project (Textile & Clothing Engineering)	Y	8
TAY7381	Comprehensive Design Project (Group Project - Textile & Clothing Engineering)		3
<b>Select 4 credits from</b>			
TAX6454	Technical Textiles	X	4
TAX6263	Textile Product Engineering		2
TAX6265	Advanced Weaving Preparation and Machinery		2
TAX6366	Yarn Manufacture II		3
TAX6367	Advanced Colouration		3
TAX6368	Nano Technology for Textiles*		3
<b>Total</b>			<b>36</b>

\* Not offered in 2021/22

### Year 5

Industrial Training (Select any 2 out of 5 training courses)		Category	Credits
TAW4401	Specific Training I (Apparel)	W	4
TAW5403	Specific Training II (Yarn Manufacture)		
TAW5404	Specific Training II (Weaving)		
TAW5405	Specific Training II (Chemical Processing)		
TAW5406	Specific Training II (Knitting)		

\*Note: Those who need to take industrial training in year2 may select either TAW4401 or TAW5403.  
Those who intend to leave with a Higher Diploma should complete 8 credits in W category.



## Bachelor of Industrial Studies Honours (Academic Year-wise Course Lists)

### Agriculture Specialisation

#### Year1

Course code	Course Title	Category	Credits
AGI3450	Land and Soil Tillage Management	I/X	4
AGI3551	Agricultural Biology		5
AGI3552	Crop Production and Technology		5
AGI3553	Plant Protection		5
AGI4555	Irrigation and Drainage Engineering		5
AGX4356	Soil Science		3
AGM3203	Communication Skills	M	2
AGM3354	Principles of Economics		3
MHZ3458	Mathematics for Agriculture	Z	4
TAK3237	Introduction to Computer Application	K	2
<b>Total</b>			<b>38</b>

#### Year 2

Course code	Course Title	Category	Credits
AGI4559	Food and Nutrition	I/X	5
AGI4561	Postharvest Biology and Technology		5
AGI4460	Animal Husbandry and Production		4
AGI4362	Environmental Agriculture		3
AGI5364	Farm Power and Machinery		3
AGX5565	Soil Plant and Water Relationship		5
AGM 4363	Agricultural Marketing	M	3
MHZ4357	Applied Statistics	Z	3
AGW4401	Specific Training I (Agriculture)	W	4
<b>Total</b>			<b>35</b>

### Year 3

Course code	Course Title	Category	Credits
AGJ5368	Indigenous Knowledge of Herbal Products	J	3
AGJ6381	Rural Sociology		3
AGX6478	Hydrology and Water Resources	I/X	4
AGI5166	Research Methodology		1
AGZ5367	Experimental Design	Z	3
AGM6379	Agricultural Extension	M	3
AGW5401	Specific Training II (Agriculture)	W	4

Course code	Course Title	Category	Credits
Elective courses (level 5) Select 14 credits			
AGI5569	Molecular biology and biotechnology	I/X	5
AGI5470	Food Microbiology		4
AGI5471	Animal Biology		4
AGI5572	Fisheries and Aquaculture		5
AGI5373	Agroforestry		3
AGI5274	Fruit Crops and Cut Flower Production		2
AGX5415	Horticulture and Landscaping Technology		4
AGX5376	Crop Processing		3
AGX5277	Food safety and Quality Management Systems		2
AGM5475	Economics and Management		M
<b>Total</b>			<b>35</b>

### Year 4

Course code	Course Title	Category	Credits
AGY6880	Individual Project (Agricultural)	Y	8
Elective courses (level 6) Select 14 credits			
AGI 6582	Food Processing	I/X	5
AGI6585	Applications in biotechnology		5
AGI6486	Field and Laboratory Technique in Plant Protection		4

AGX6283	Groundwater Resources Management		2
AGX6284	Impact of Climate Change on Water Resources		2
AGX6387	Plantation Crop Technology		3
AGX6490	Soil and water Conservation		4
AGX6377	Precision Agriculture		3
<b>Total</b>			<b>22</b>

## Apparel Production & Management Specialisation

### Year 1

Course code	Course Title	Category	Credits
TAX3530	Fibre to Fabric	X	5
TAX3331	Garment Analysis and Sewing Machinery		3
TAI3332	Garment Accessories	I	3
TAI3533	Pattern Construction		5
TAM3234	Basics of Human Resource Management	M	2
TAM3535	Management Studies		5
MHZ3576	Statistics for Industrial Studies	Z	5
TAK3237	Introduction to Computer Applications	K	2
<b>Total</b>			<b>30</b>

### Year 2

Course code	Course Title	Category	Credits
TAX4438	Production Planning and Organisation	X	4
TAX4539	Quality Assurance for Textile and Clothing		5
TAX4540	Garment Manufacture		5
TAX4441	Knitted Garment Technology		4
TAI4442	Advanced Pattern Construction	I	4
TAI4243	Foundation Garments		2
TAI4344	Industrial Garment Washing and Finishing		3
TAM4445	Apparel Merchandising	M	4
TAW4401	Specific Training I (Apparel)	W	4
<b>Total</b>			<b>35</b>

### Year 3

Course code	Course Title	Category	Credits
TAI5246	Current Topics in Textile and Clothing	I	2
TAX5547	Plant Utilities	X	5
TAX5648	Fabric Structure and Analysis		6
TAX5349	Nonwoven Textiles		3
MHZ5570	Quantitative Techniques	Z	5
TAW5401	Specific Training II (Apparel)	W	4
Select 5 credits from			
TAX5551	Textile Colouration	X	5
TAI5552	Principles of Fashion Design	I	5

Course code	Course Title	Category	Credits
Select 5 credits from			
LLJ3245	Introduction to Laws of Sri Lanka	J	2
MHJ4241	History of Technology		2
MHJ5343	Nature of Science		3
MHJ5342	Technology, Society and Environment		3
TAJ5353	History and Traditions of Clothing		3
<b>Total</b>			<b>35</b>

## Year 4

Course code	Course Title	Category	Credits
TAX6454	Technical Textiles	X	4
TAX6455	Fabric Technology		4
TAX6556	Ergonomics		5
TAX6263	Textile Product Engineering		2
TAM6457	Fashion Marketing	M	4
TAY6882	Research Project (Apparel Production)	Y	8
Select minimum 3 credits			
TAX6367	Advanced Colouration	X	3
TAX6368	Nano Technology for Textiles*		3
<b>Total</b>			<b>30</b>

\* Not offered in 2021/22

Note: Those who intend to leave with a Higher Diploma should complete 8 credits in W category.

## Fashion design & Product Development Specialisation

### Year 1

Course code	Course Title	Category	Credits
TAX3530	Fibre to Fabric	X	5
TAX3331	Garment Analysis and Sewing Machinery		3
TAI3332	Garment Accessories	I	3
TAI3533	Pattern Construction		5
TAI3270	Fashion Illustration I		2
TAM3234	Basics of Human Resource Management	M	2
TAM3535	Management Studies		5
MHZ3576	Statistics for Industrial Studies	Z	5
TAK3237	Introduction to Computer Applications	K	2
<b>Total</b>			<b>32</b>

## Year 2

Course code	Course Title	Category	Credits
TAX4539	Quality Assurance for Textile and Clothing	X	5
TAX4540	Garment Manufacture		5
TAI4371	Concept of Fashion	I	3
TAI4472	Concept of Fashion Designing		4
TAI4373	Fashion Illustration II		3
TAI4474	Process of Fashion Designing		4
TAI4442	Advanced Pattern Construction		4
TAI4343	Foundation Garments		3
TAW4402	Specific Training I (Fashion)	W	4
Select minimum two credits from			
LLJ3245	Introduction to Laws of Sri Lanka	J	2
MHJ4241	History of Technology		2
<b>Total</b>			<b>37</b>

## Year 3

Course code	Course Title	Category	Credits
TAI5375	Design Through Draping	I	3
TAI5478	Fashion Design Development		4
TAI5579	Theoretical Aspects of Visual presentation and Exhibition Design		5
MHZ5570	Quantitative Techniques	Z	5
TAY5384	Inspiration of Fashion Designing	Y	3
TAW5402	Specific Training II (Fashion Design and Product Development)	W	4
Select minimum 5 credits from			
TAX5551	Textile Colouration	X	5
TAI5376	Computer Aided Pattern Drafting	I	3
TAI5277	Computer Aided Fashion Illustration		2
Select minimum 3 credits from			
MHJ5343	Nature of Science	J	3
MHJ5342	Technology, Society and Environment		3
TAJ5353	History and Traditions of Clothing		3
<b>Total</b>			<b>32</b>

## Year 4

Course code	Course Title	Category	Credits
TAI6580	Fashion Show Production	I	5
TAX6556	Ergonomics	X	5
TAM6457	Fashion Marketing	M	4
TAY6885	Creating and Exhibiting Fashion Products	Y	8
Select minimum of 8 credits from			
TAX6454	Technical Textiles	X	4
TAX6455	Fabric Technology		4
TAX6263	Textile Product Engineering		2
TAX6367	Advanced Colouration		3
TAX6368	Nano Technology for Textiles*		3
<b>Total</b>			<b>30</b>

\* Not offered in 2021/22

Note: Those who intend to leave with a Higher Diploma should complete 8 credits in W category.

## Textile Manufacture Specialisation

### Year 1

Course code	Course Title	Category	Credits
TAX3458	Fibre Science & Technology	X	4
TAX3459	Yarn Manufacture 1		4
TAX3370	Textile Preparation		3
TAX3331	Garment Analysis and Sewing Machinery		3
TAI3332	Garment Accessories	I	3
TAM3234	Basics of Human Resource Management	M	2
TAM3535	Management Studies		5
MHZ3576	Statistics for Industrial Studies	Z	5
TAK3237	Introduction to Computer Applications	K	2
<b>Total</b>			<b>31</b>

### Year 2

Course code	Course Title	Category	Credits
TAX4539	Quality Assurance for Textile and Clothing	X	5
TAX4540	Garment Manufacture		5
TAX4560	Woven Fabric Technology		5
TAX4361	Knitting Technology		3
TAX4571	Textile Colouration and Finishing		5
TAI4344	Industrial Garment Washing and Finishing	I	3
TAM4445	Apparel Merchandising	M	4
<b>Total</b>			<b>30</b>

Note: Those who wish to take TAW4401, may register for TAX4438 in year 2 Table.

### Year 3

Course code	Course Title	Category	Credits
TAX5547	Plant Utilities	X	5
TAX5648	Fabric Structure and Analysis		6
TAX5349	Nonwoven Textiles		3
TAI5552	Principles of Fashion Design	I	5
TAI5246	Current Topics in Textile and Clothing		2
MHZ5570	Quantitative Techniques	Z	5
Select 5 credits from			
LLJ3245	Introduction to Laws of Sri Lanka	J	2
MHJ4241	History of Technology		2
MHJ5343	Nature of Science		3
MHJ5342	Technology, Society and Environment		3
TAJ5353	History and Traditions of Clothing		3
<b>Total</b>			<b>31</b>

### Year 4

Course code	Course Title	Category	Credits
TAX6263	Textile Product Engineering	X	2
TAX6556	Ergonomics		5
TAY6883	Research Project (Textile manufacture)	Y	8
Select 15 credits from			
TAX6454	Technical Textiles	X	4
TAX6265	Advanced Weaving preparation and machinery		2
TAX6366	Yarn Manufacture II		3
TAX6367	Advanced Colouration		3
TAX6368	Nano Technology for Textiles*		3
TAM6457	Fashion Marketing	M	4
<b>Total</b>			<b>30</b>

\* Not offered in 2021/22

Industrial Training (Select any 2 out of 5 training courses)		Category	Credits
TAW4401	Specific Training I (Apparel)	W	4
TAW5403	Specific Training II (Yarn Manufacture)		
TAW5404	Specific Training II (Weaving)		
TAW5405	Specific Training II (Chemical Processing)		
TAW5406	Specific Training II (Knitting)		

Note: Those who intend to leave with a Higher Diploma should complete 8 credits in W category



## Advanced Certificate in Apparel Technology programme (One year)

<b>Course code</b>	<b>Course Title</b>	<b>Category</b>	<b>Credits</b>
TAX2585	Introducing Textiles	X	5
TAI2886	Apparel Technology	I	8
TAI2488	Laboratory Practice and Industrial Exposure		4
TAI2289	Introducing Fashion		2
TAZ2587	Mathematics and Science for Textile Technology	Z	5
TAY2690	Advanced Certificate Project	Y	6
<b>Total</b>			<b>30</b>