#### The Open University of Sri Lanka

The Open University of Sri Lanka (OUSL) was established in 1980 under the University Act No.16 of 1978. It has the same legal and academic status as any other national university of Sri Lanka. As per the Public Administration Circular No. 16/92, dated 13/03/1992, issued by the Ministry of Public administration, Provincial Councils and Home affairs, the degrees awarded by the OUSL are treated as equivalent to degrees awarded by other universities under the purview of the University Grant Commission (UGC).

The Open University of Sri Lanka has become one of the pioneers of Open and Distance Learning (ODL), where students may pursue further education through distance education techniques. Six (06) regional centres and 19 study centres distributed throughout the country provide support services required by Faculties to conduct their academic programmes.



#### Facilities available....

- Library facilities
  - Main library at Colombo Regional Centre and libraries at other Regional Centres.
  - o Well-equipped Audio-Visual Resource Centre (AVRC) at the main library.
- Elementary Computer Labs
  - o Free computer facilities available at a number of Regional and Study Centres.
- Laboratories
  - Laboratory sessions for courses up to level 3 and a few higher level courses conducted at most Regional Centres and selected Study Centres.
  - For higher level courses, laboratories with modern equipment are available at Colombo Regional Centre.
- Student Counseling, Temporary Residential Facilities, Canteens at some Regional centres.

#### Faculty of Engineering Technology (FET)

- One of the four Engineering Faculties in the national university system and offers programmesin line with Sri Lanka Qualifications Framework (SLQF) ranging from Certificate to Doctoral level
- Pioneer in delivering Distance Education Courses in Engineering for over 25 years
- State-of-the-art laboratory facilities to cater for the demand of expanding industry in Sri Lanka
- On-line courses and supplementary materials through National On-line Distance Education Service (NODES)
- Computer and internet access for students through island-wide NODES Access Centres (NACS)
- Highly qualified academic staff members along with support staff

### Academic departments in FET

- Agricultural and Plantation Engineering
- Civil Engineering
- Electrical and Computer Engineering
- · Mathematics and Philosophy of Engineering
- Mechanical Engineering
- Textile and Apparel Technology

#### Recognition of programmes offered by the FET

- Government recognition for degrees through Public Administration Circular No. 16/92 dated
   13 March 1992
- Professional recognition by Institution of Engineers Sri Lanka (IESL) for BTech(Eng) Degree on par with BSc Engineering Degrees from Moratuwa and Peradeniya Universities
- Public and Private sector recognition for Degrees/Diplomas/Certificates

#### **Programme Fees**

The fees payable by a registered student includes, registration fee, facilities fees, exemptions fees (if applicable) library fees and the tuition fees. Based on the 2014/15 fee structure, the approximate total fees for various programmes are as follows:

Certificate in Industrial Studies(1 year Programme) - Rs. 50,000

Diploma in Industrial Studies (2 year Programme)-Rs. 100,000

Bachelor of Industrial studies (4 year Programme) - Rs. 200,000

Diploma in Technology (2 year Programme) – Rs. 125,000

Bachelor of Technology(4 year Programme) - Rs. 250,000

Bachelor of Software Engineering (3 year programme) – Rs. 225,000

Please note that the fees may be subject to change in subsequent years. A detailed and more accurate fee structure will be available in the Student Guidebook.

#### **Financial Assistance**

The University has limited number of bursaries, including Mahapola Scholarships, University bursaries etc., to help students who are in need of financial assistance to continue with their studies. However, please note that these bursaries will be available on merit basis after completing the first year in the University.

# **Certificate Programmes**

# Certificate Programme in Industrial Studies in Small Scale Renewable Energy Systems

#### **Compulsory course content**

Introduction to small scale renewable energy systems

Social, environmental, economic and legal aspects of sustainable energy use

Energy saving methods

Basic mathematics & science

Entry qualifications: Pass G.C.E (O/L)

Medium: Sinhala Duration: 1 year

For more information Call: 011 2881 109

#### Certificate in Industrial Studies in Animal Husbandry and Aquaculture

### **Compulsory course content**

Fundamentals of Biology Methods of increasing productivity of farm animals Fish and shellfish farming Technology of agriculture production Integrated farming systems

Processing an preservation of farm products

Farm practices

Entry qualifications :G.C.E. (O/L) with at least 6 passes

Medium: Sinhala/Tamil
Duration: 1 year

For more Information contact: 011 2881 315/011 2881062

# **Certificate in Industrial Studies in Apparel Technology**

### **Compulsory courses**

Mathematics and science for textile and apparel Introducing textiles
Apparel technology
Laboratory practice and industrial exposure

Entry qualifications: Pass in G.C.E. (O/L) is recommended

Medium: Sinhala/English

**Duration**: 1 year

# Degree Programmes – Technology (Engineering)

**Entry qualifications**: Pass in 3 subjects in G.C.E (A/L) mathematics stream **OR** Pass in Foundation courses for Technology at the OUSL. (Holders of higher qualifications such as NDT, NDES, HNDE or similar higher qualifications may be admitted at higher levels, depending on the exemptions granted. Those who enter through higher qualifications may complete the programme in lesser time period than the stipulated minimum duration)

Medium: English

Minimum duration: 4 years (Including the Diploma 2 years)

After completion of the first two years, a student can obtain the Diploma in Technology certificate, provided all training modules have been fulfilled.

# **Bachelor of Technology in Civil Engineering**

#### **Compulsory courses**

			Engineering Mathematics IA
			Engineering Mathematics IB
			Communicating Engineering Information
		Year 1	Basic thermo fluids
		Yea	Electro Techniques
	æ		Construction Materials
	) MC		Structural Analysis and Design I
	Diploma		Strength of Materials
	۵		Hydraulics & Hydrology
			Surveying I
		r 2	Soil Mechanics & Introduction to Rock Mechanics
Jegree		Year 2	Structural Analysis and Design II
)eg			Construction Engineering & Planning
			Engineering Mathematics II
		r3	Surveying II
			Mechanics of Fluids
			Engineering Geology
		Year 3	Structural Analysis
			Geo-technics
			Engineering mathematics III
		Year 4	Construction Engineering & Management
			Structural Design
			Environmental Engineering
			Final year Project (Civil)

### **Training Modules**

Workshop Practice
Industrial Training I (Diploma)
Industrial Training II (Bachelor)

# **Bachelor of Technology in Electrical Engineering**

# **Compulsory courses**

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# **Training Modules**

Workshop Practice Industrial Training I (Electronics)

Industrial Training II (Power) / Industrial Training (Power Undergraduate)

# **Bachelor of Technology in Computer Engineering**

# **Compulsory courses**

			Engineering Mathematics IA
			Engineering Mathematics IB
			Communicating Engineering Information
		-	Basic Thermo-fluids
		Year 1	Electronics I
		>	Electro-techniques
	na		Electrical Circuits & Measurements
	Diploma		Electrical Power
	Dip		Communications & Information Technology
			Engineering Mathematics II
			Discrete Mathematics I
ee		Year 2	Electronics II
Jegree			Data Structures & Algorithms
ă			Microprocessors & Interfacing
			Software Engineering
		Year 3	Engineering Mathematics III
			Discrete Mathematics II
			Data Communication
			Operating Systems
			Computer Architecture
		Year 4	Digital Electronic Systems
			Compiler Design
			Processor Design
			Project (Group Project / Literature Survey &
			Individual project-Type A / Individual project-Type B)

# **Training Modules**

Workshop Practice

Industrial Training I (Electronics)

Industrial Training II (Software) /Industrial Training (Software Undergraduate)

# **Bachelor of Technology in Electronic & Communication Engineering Compulsory courses**

			<del>,                                      </del>
			Engineering Mathematics IA
			Engineering Mathematics IB
			Communicating Engineering Information
		1	Basic Thermo-fluids
		Year 1	Electronics I
		>	Electro-techniques
	na		Electrical Circuits & Measurements
	Diploma		Electrical Power
	Dig		Communications & Information Technology
			Engineering Mathematics II
			Fault Diagnosis in Electronic Circuits
96		Year 2	Electronics II
Jegree			Communications
۵			Microprocessors & Interfacing
			Control Systems Engineering
		Year 3	Engineering Mathematics III
			Communication Theory & Systems
			Data Communication
			Physical &Opto Electronics
		Year 4	Field Theory
			Analog Electronic Systems
			Digital Electronic Systems
		Ye	Microwave Engineering & Applications
			Project (Group Project / Literature Survey &
			Individual project-Type A / Individual project-Type B)

# **Training Modules**

Workshop Practice

Industrial Training I (Electronics)

Industrial Training II (Software) /Industrial Training (Software Undergraduate)

# **Bachelor of Technology in Mechanical Engineering Compulsory courses**

		1	
			Engineering mathematics IA
			Engineering mathematics IB
			Electro-techniques
		Year 1	Communicating engineering information
		Ye	Workshop technology
	В		Engineering drawing
	mo		Thermo-fluids
	Diploma		Electronics, sensors and actuators
			Engineering mathematics II
			Strength of materials I
			Mechanics of machines
			Materials engineering
		Year 2	Microprocessors and interfacing
		Ye	Minimum of two from:-
			Production technology
			Production management
			Automobile technology
ee			Applied automotive electronics
Degree		Year 3	Engineering mathematics III
۵			Applied thermodynamics
			Strength of materials II
			Dynamics of mechanical systems
			Machine design
			Industrial engineering
			Fluid mechanics
			Individual project/Group project/Project
			identification & literature survey (Mechanical) and
			Individual project
		Year 4	Minimum of two from:-
			Automobile engineering
			Vehicle dynamics
			Mechanics of materials
			Advanced manufacturing technology
			Thermal power generation
			New and renewable sources of energy
			Factory automation
			Robotics

# **Training Modules**

Workshop Practice Industrial Training I (Mechanical) Industrial Training II (Mechanical)

# **Bachelor of Technology in Mechatronics Engineering Compulsory courses**

			Engineering mathematics IA
			Engineering mathematics IB
			Electro-techniques
		1	Communicating engineering information
		Year 1	Thermo-fluids
		<b>&gt;</b>	Applied electronics
	na		Modelling of mechatronics systems
	Diploma		Principles of design
	Dig		C programming
			Engineering mathematics II
			Sensors and actuators
<b>a</b> )		Year 2	Vibration and faults diagnosis
Jegree			Mechatronics product design
Эев			Microprocessors and interfacing
			Controls systems engineering
			Applied mechanics and strength of materials
		Year 3	Engineering mathematics III
			Power electronic and motor drives
			Machine vision
			Materials and manufacturing technology
			Dynamics of mechanical systems
		Year 4	Factory automation
			Robotics
			Advanced control engineering
			Mechatronic product design project (Individual) or
			Mechatronic product design Project (Group)

### **Training Modules**

Workshop Practice Industrial Training I (Mechanical) Industrial Training II (Mechanical)

# **Bachelor of Technology in Textile and Clothing Engineering Compulsory courses**

			Engineering mathematics IA
			Engineering mathematics IB
			Electro techniques
		Year 1	Communicating engineering communication
		Ye	Basic thermo fluids
	ъ		Fiber science and technology
	шc		Garment analysis and sewing machinery
	Diploma		Production planning and organization
			Textile coloration
			Quality assurance for textiles and clothing
			Garment manufacture
		7	Woven fabric technology
ee		Year 2	Yarn manufacture I
Degree			Knitting technology
ă			Engineering mathematics II
			Control systems engineering
			Mechanics of machines
		Year 3	Yarn and fabric mechanics
			Plant utilities
			Pattern development
			Textile management and merchandising
			Engineering mathematics III
		Year 4	Individual project-Type B (Textile and Apparel)/Group
			project – (Textile and apparel)/Project identification
			and literature survey AND Individual project – Type A
			(Textile and apparel)

# **Training Modules**

Workshop practice

# Any two from

Industrial training (Apparel I)
Industrial training (Yarn manufacture)
Industrial training (Weaving)

Industrial training (Chemical processing)

Industrial training (Knitting)

### **Bachelor of Software Engineering**

**Entry qualifications**: Pass in 3 subjects in G.C.E (A/L) in any stream except General English/General IT /Pass in 36 credits from any foundation programme of the OUSL /Equivalent qualification accounting to 36 credits rated by an exemption evaluation committee **AND** One year tertiary level qualification **AND** Passing a selection test.

Medium: English

Duration: 3 years

#### **Compulsory course content**

Introduction to Computing **Mathematics for Computing** Networking & Web Technology Data Modeling & Database Systems **Object Oriented Design & Programming** Data Structures & Algorithms **Software Engineering Concepts Communication Skills for Engineers** Discrete Mathematics I **Probability & Statistics Human Computer Interaction Software Quality Assurance & Testing Computer Organization & Operating Systems** Management & Professional Issues Discrete Mathematics II Software Project Management Software Architecture & design **Software Construction Group Project** 

# Training Modules

**Industrial Training** 

For more information visit: www.ou.ac.lk/prog/bse

Email: bse@ou.ac.lk Call: 011 2881 081 Email: bse@ou.ac.lk

Call: 011 2881 081

# **Degree Programmes – Industrial Studies**

# **Bachelor of Industrial Studies in Agriculture Compulsory courses**

			Crop Production and Farming Systems
			Agricultural Biology
		Year 1	Land and Soil Tillage Management
		Υe	Postharvest Biology and Technology I
	В		Mathematics for Agriculture
	om		Bio Statistics
	Diploma		Integrated Crop Production
			Plant and Soil Science
		Year 2	Design and Analysis of Experiments
a)		Yea	Agricultural Economics and Management
ree			Soil and Water Conservation / Industrial Training I
Jegree			(Agricultural)
		Year 3	Farm Power and Machinery
			Postharvest Biology and Technology II
			Soil Plant and Water Relationship
			Environmental Control in Farm Structures
			Hydrology and Water Resources
			Industrial Training II
			Individual Project (Agriculture)
		r 4	,
		Year 4	

**Entry qualifications:** 3 passes in science subjects at GCE(A/L) examination including Biology OR Any other equivalent or higher qualification

Medium: English

**Duration**: 4 years (Including the Diploma 2 years)

# **Bachelor of Industrial Studies in Apparel Production and Management Compulsory courses**

		Year 1	Fiber to fabrics
			Garment accessories
			Garment analysis and sewing machinery
	na		Pattern construction
	Diploma		Production planning and organization
	Dig		Quality assurance for textiles and clothing
		Year 2	Garment manufacture
		Yea	Management studies
a)			Statistics for industrial studies
Jegree			Plant utilities
Deg		Year 3	Current topics in textiles and clothing
			Ergonomics
		4	Fabric technology
		Year 4	Individual project-Type B (Textile and Apparel)/Group
			project – (Textile and apparel)/Project identification
			and literature survey AND Individual project – Type A
			(Textile and apparel)

# **Training Modules**

Industrial Training I (Apparel I)
Industrial Training II (Apparel II)

# **Bachelor of Industrial Studies in Fashion Design and Product Development Compulsory courses**

			Fiber to fabrics
			Garment accessories
		1	Garment analysis and sewing machinery
	а	Year 1	Pattern construction
	om	_	Concepts of fashion
	Diploma		Concepts of fashion design
			Fashion illustration I
		2	Garment manufacture
		Year	Process of fashion design
a)		λ	Fashion Illustration II
Jegree		Year 3	Advanced pattern construction
De			Design through draping
			Computer aided pattern drafting
			Computer aided fashion illustration
			Apparel merchandising
			History & traditions of clothing
			Fashion design project
		4	Visual presentation and exhibition design
			Fashion marketing
		Year 4	Inspiration of fashion design
			Creative fashion design

# **Training Modules**

Industrial Training I (Fashion)

Industrial Training II (Fashion design and product development)

# **Bachelor of Industrial Studies in Textile Manufacture Compulsory courses**

			Fiber science and technology
		Year 1	Textile preparation
			Fabric structure and analysis
	а		Garment analysis and sewing machinery
	om		Quality assurance for textiles and clothing
	Diploma		Textile coloration and finishing
		7	Management studies
		Year 2	Statistics for industrial studies
			Woven fabric technology
			Yarn manufacture I
a)			Knitting technology
Jegree		Year 3	Plant utilities
Deg			Current topics in textiles and clothing
		Year 4	Technical textiles
			Textile product engineering
			Ergonomics
			Advanced coloration
			Specialty fabrics
			Individual project-Type B (Textile and
			Apparel)/Group project – (Textile and
			apparel)/Project identification and literature survey
			AND Individual project – Type A (Textile and apparel)

#### **Training Modules (Any two)**

Industrial training (Apparel I)
Industrial training (Yarn manufacture)
Industrial training (Weaving)
Industrial training (Chemical processing)
Industrial training (Knitting)

Entry qualifications for all Industrial Studies Degrees/Diplomas: Pass in any three subjects in G C E (A/L) examination or Completion of Certificate in Industrial Studies – Apparel Technology at the OUSL or Completion of any Foundation course at OUSL or equivalent qualification (Holders of higher qualification such as NDT, SLITA or Brandix Diploma may be admitted at higher levels depending on the exceptions granted. Those who enter through higher qualifications may complete the programme in lesser time period than the stipulated minimum duration)

Medium: English

After completion of the first two years, a student can obtain the Diploma in Technology certificate, provided all training modules have been fulfilled.

#### **Postgraduate Programmes**

#### Postgraduate Diploma in Technology in construction management

#### **Compulsory courses**

Planning and Control in the construction industry

Human resource management in the construction industry

Financial management and taxation in the construction industry

Estimating tendering and marketing in the construction industry

Construction contracts and claims

Law and the construction industry

Construction productivity and quantitative techniques

Cost control and cash flow in the construction industry

Management of the design phase and quality control

Management information systems for the construction industry

**Entry qualifications**: A degree of Bachelor of Technology (Engineering) in a relevant discipline from the OUSL OR A degree of Bachelor of Science of Engineering in relevant discipline form a recognized university OR Eligibility to become an Associate Member of the IESL or any other Membership of a Engineering Institution which is equivalent to Associate Membership of IESL**AND** Minimum of 2 years of relevant experience in the industry.

Medium: English

Minimum duration: 1 Year

# Postgraduate Diploma in Technology in Industrial Engineering

#### **Compulsory courses**

Operations research

Business organisation and management

Industrial economics and accounting

Quality and reliability engineering

Production planning and materials management

Human resource management

**Entry qualifications**: A degree of Bachelor of Technology (Engineering) in a relevant discipline from the OUSL OR A degree of Bachelor of Science of Engineering in relevant discipline from a recognized university OR an Associate Membership of the IESL or any other Membership of a Engineering Institution which is equivalent to Associate Membership of IESLAND Minimum of 2 years of relevant experience in the industry.

Medium: English

Duration: 1 Year

### Post Graduate Diploma in Apparel Production and Management

#### **Compulsory course**

Apparel manufacturing technology

Global outlook of textile and apparel industry

Human resource management and legal aspects for managing

Textile and apparel marketing

Management accounting and financial management

Supply chain management

**Production planning** 

Quality management

Product development

Human factors engineering

Strategic management

Research methodology

**Entry qualifications**: Bachelor's degree in Textile or Apparel Technology or Bachelors degree of Industrial Studies or any other discipline. Those who possess professional qualifications in the field of Textile and Apparel Technology, CIMA, CIM Apparel Merchandising with appropriate additional credits are eligible to seek for provisional registration.

Further the student should also have minimum two years of post-qualifying experience in Industry.

Medium: English Duration: 1 Year

#### **Masters Programmes**

### **Master of Technology in Construction management**

#### **Compulsory course content**

Research project (The student should undertake a comprehensive research study and submit a Dissertation to successfully complete the programme)

Entry qualifications: Postgraduate Diploma in Technology in construction management

Medium: English Duration: 1 year

### **Master of Technology in Industrial Engineering**

#### **Compulsory course content**

Strategic management

Technology management

Maintenance management

Project management

Research project

Law and industry

#### Minimum of one from:-

Energy management in industries

Construction contracts and claims

Construction plant management and construction safety

Real estate and property development

Entry qualifications: Postgraduate Diploma in Technology in Industrial Engineering

Medium: English

Duration: 1 year

#### Master of Technology in Apparel Production and Management

### **Compulsory courses (Research Option)**

Research project

#### **Compulsory course content (Course Option)**

Operation research

Project management

Management information systems

Research project Type A

#### Any three courses from

Management economics

Project appraisal

Construction contracts and claims

Technology management

Cleaner production for waste management

Energy management in industries

Law and industry

Entry qualifications: Postgraduate diploma in Apparel Production and Management

Medium: English Duration: 1 year