OUSL

BSE

Bachelor of Software Engineering

Student Guidebook 2021/2022

Department of Electrical and Computer Engineering
The Open University of Sri Lanka

"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."

Important information

Registration for the Academic Year 2021/2022

Application period (round 1)   *: March 14, 2021 to April 11, 2021*

Application period (round 2)   *: May 12, 2021 to May 23, 2021*

Application fee   *: Rs. 600*

Pre-orientation dates (round 1)   *: March 18, March 21, April 3 online on Zoom*

Pre-orientation dates (round 1)   *: May 18 online on Zoom at 7pm*

Exemption application closing date: May 20, 2021

Selection Test date (round 1)   *: April 19-24, 2021*

                                  Time   *: Please select the time and venue when filling the application form*

                               Venue   *: Computer laboratories of OUSL in all Provinces. Select when filling the Application form*

Selection Test date (round 2)   *: May 25, 2021*

Time schedule for student registration

Bachelor of Software Engineering Honours		
Type of Registration	**Centres**	**Dates**
Selection Test	All Centres with computer laboratories ** select the time and venue when filling the application form*	19April -24th April* 8am -7pm
New Registration	Online	11 May – 1 June 2021
Re-Registration	All Regional Centres & All Study Centres (except Kuliyapitiya)	Will be notified later
Add / Drop Courses	All Regional Centres and Gampaha, Kalutara SCs	15-16 October 2021 (tentative)

Drop Courses only	All Regional Centres and Gampaha, Kalutara SCs	30 November 2021

Important Dates

Activity	Centres	Date
Commencement of StART@OUSL	Online and all Regional Centres	04 June 2021
Commencement of Academic Activities		18 September 2021
Last date for claiming approved exemptions	Colombo Regional Centre	21 January 2022 (tentative)
Last date for obtaining studentship	All Regional Centres & All Study Centres (except Kuliyapitiya)	28 April 2022
Last date for the applying for the Award of the Degree, Higher Diploma		Within one week of the last re-registration date in 2022

On-line submission of application forms

Applicants should submit applications on-line by visiting the university website. Relevant payment could be made online through Debit/Credit cards or at a Regional or a Study Centre.

Exemptions

A list of qualifications presently recognised by the OUSL for granting exemptions is given in Appendix 1 of this Guidebook. If you possess **any other qualification**, which you think would entitle you to obtain exemptions for any course(s), you should apply for its evaluation, using the prescribed form obtainable from Faculty of Engineering Technology website or given in Appendix 4 of this Guidebook.

University Holidays

Thai Pongal Day

Independence Day

Sinhala and Tamil New Year Day

May Day

Vesak Poya Day

Holy Prophet's Birthday

Christmas Day

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About the University

The Open University of Sri Lanka

The Open University of Sri Lanka (OUSL) is the only recognised university in Sri Lanka where students can pursue further education by distance education techniques in keeping with the philosophy of Open and Distance Learning.

The OUSL has the same legal and academic status as the other national universities in Sri Lanka. It was set up by the Government of Sri Lanka under the Universities Act No. 16 of 1978, for the purpose of providing higher educational opportunities to working adults.

The OUSL consists of six academic faculties:

- Faculty of Engineering Technology
- Faculty of Natural Sciences
- Faculty of Humanities and Social Sciences
- Faculty of Education
- Faculty of Health Sciences
- Faculty of Management Studies

There are nine Regional Centres in Anuradhapura, Badulla, Batticaloa, Colombo, Jaffna, Kandy, Kurunegala, Matara, and Ratnapura and 19 Study Centres spread throughout the country.

Faculty of Engineering Technology

The Faculty of Engineering Technology is a pioneer among all academic institutions in the world, in the delivery of distance education programmes in Engineering.

The Faculty of Engineering Technology offers its own programmes of study leading to Certificates, Advanced Certificates, Diplomas, Degrees, Postgraduate Diplomas and Degrees in different specialisations.

The Faculty consists of six academic departments: Agricultural and Plantation Engineering, Civil Engineering, Electrical and Computer Engineering, Mathematics and Philosophy of Engineering, Mechanical Engineering, and Textile and Apparel Technology.

The Faculty also has a multi-disciplinary Engineering Research Unit (ERU) dedicated to enhancing research in the Faculty.

Department of Electrical and Computer Engineering

The Department of Electrical and Computer Engineering offers the Bachelor of Software Engineering (BSE) degree programme. In addition to BSE, it conducts study programmes leading to the award of Higher Diploma in Technology, Bachelor of Technology and research degrees in three specialisations: Computer Engineering, Electrical Engineering, and Electronic and Communication Engineering. The main focus of the Department is to provide a flexible curriculum in fundamental and advanced topics in the above specialisations for producing well qualified graduates ready to overcome national as well as international challenges.

Every year the Department produces a large number of well qualified graduates. The standard of the final year student projects was highly praised by renowned professional bodies such as Institute of Engineers Sri Lanka (IESL). Undergraduate students have published research papers in international forums and journals and have brought value and credit to the Department of Electrical & Computer Engineering as well as to the OUSL. Students have won several awards for their engineering projects in competitions organised by IESL, SLAAS and other universities. They have also won the first place in several international competitions.

The Department has well equipped laboratories for all three specialisations: the electrical engineering laboratory, the computer engineering laboratory, the advanced electronics laboratory and the electronics workshop at the Colombo Regional Centre. Some of these laboratories are also located in Kandy, Matara and Batticaloa Regional Centres. The software engineering laboratory is located at the Colombo Regional Centre.

The Department is served by well qualified dedicated academic and non-academic staff. The Centre for IT Educational Service (CITES) will be delivering BSEHons programme under the guidance of the Department.

Centre for IT Educational Services (CITES)

The Centre for Information Technology Educational Services is established in 2021 to facilitate a large intake of students for several IT degrees and administer the delivery of courses offered by different Faculties in OUSL. The Centre is established with seed funding from AHEAD until permanent facilities are put in place and the necessary cardre positions are given.

In 2021, The CITES will deliver the courses in Bachelor of Software Engineering Honours degree programme which includes an exit point at Higher Diploma. From the year 2022, it is

envisaged to offer three more degree programmes in **Computer Science**, **Information Technology** and **Data Science**.

The CITES function as a facilitator between the students and staff involved in delivery of IT degrees and the university. All student queries should be directed to Manager/CITES who will direct them to relevant divisions in the University.

Bachelor of Software Engineering (BSE) Programme

Software Engineering has become one of the major computing disciplines today. In the early days, it was a discipline within Computer Science. Over the years it has evolved to what it is today and gained prominence as the foundation of all software systems. The Joint Task Force of The IEEE Computer Society and Association for Computing Machinery (ACM), after several years of research, has developed guidelines for such degrees, and today these guidelines are used worldwide for developing Software Engineering degree programmes.

Software engineering is the discipline where you learn to design, develop and maintain software systems that are reliable and efficient while satisfying the requirements of the customers. Software engineers usually solve problems for customers in different domains outside software engineering – engineering, natural science, social science, business etc.

Taking all these into account, the BSE programme of the OUSL has been carefully designed along the curriculum guidelines published by the IEEE Computer Society and ACM, and in consultation with professionals in the software industry and academia.

We are proud to announce that the Bachelor of Software Engineering programme of the OUSL is the first-ever industry-oriented software engineering programme offered by a local university, with the UGC approval.

The primary focus of the programme is to produce well qualified graduates - software engineers - to work in the software industry. To this end, the programme contains a significant amount of practical components and provides students the opportunity to work alongside software industry professionals.

Why do BSE?

According to recent industry surveys, there is a huge demand for IT specialists in Sri Lanka and in the rest of the world. When you consider today's software industry, qualifications and experience in the discipline of software engineering have become major recruitment criteria.

Hence having such an academic qualification will make your future in this industry much brighter. At OUSL, a reputed National University in Sri Lanka, you have an excellent opportunity to earn a well-recognised degree that is well suited for the software industry. After successful completion of the BSE degree, you will work either in the software industry or in a division of an institution where design, development and maintenance of software are undertaken.

About programme design

In developing this programme we have followed the guidelines provided by the Joint Task Force formulated by two leading computer associations in the world – IEEE Computer Society and ACM. In addition, we have considered the demand and expectations of the IT sector in Sri Lanka. While developing the curriculum and the courses in the programme, we have had the participation and untiring efforts of professionals from reputed software companies and academics qualified in the software engineering field.

In this discipline, it is essential to have a reasonable depth of knowledge in an application domain other than software engineering. If not, students need to do specialised higher-level courses in the same discipline. As a special effort, 16 credits will be granted as virtual credits for recognized education qualifications from other domain such as Accounting, Business management, engineering etc.

On the other hand, it has been recognised that while engaged in studies, working alongside software professionals is essential in order to become a good software engineering graduate. To achieve this objective, students have to work in the software industry. Accordingly, the Sri Lanka Association of Software and Service Companies (SLASSCOM) facilitates students to secure placements in the software industry. The SLASSCOM acts as the catalyst of growth for the Sri Lankan IT and BPO industry by facilitating trade and business, propagation of education and employment, encouragement of research and innovation, and by supporting the creation of a progressive national policy framework.

Study Programme Educational Outcomes

To produce competent software engineers;
- With up-to-date knowledge and expertise, and acquired ingenuity to address software engineering problems with holistic approach with due consideration to environment and society.

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

Duration

This is a 4-year specialised degree in software engineering according to the contents of the programme. Maximum number years a student can take to complete the degree is 12 years. Study Programme will be delivered in 2 Semesters from the Academic year 2021/2022.

Who should apply?

This programme is designed to produce qualified graduates for the software industry and for any other sector where the software design, development and maintenance of software systems are carried out. If you are willing to work as a software engineer in an institution where the development and maintenance of software are undertaken, the BSE is the degree programme you are looking for.

Anyone who possesses the following minimum entry qualifications can apply for the Bachelor of Software Engineering degree programme.

- Obtained three passes in General Certificate of Education (Advanced Level) in any 3 subjects, excluding General English and General Information Technology subjects OR
- Obtained "C" passes in any 3 subjects in Cambridge/Edexcel Advanced Level examination OR
- Passes in any three foundation subjects of OUSL OR
- Any other qualification acceptable to the Senate

For any other qualification, you must apply with all supporting documents before the exemption deadline.

How to apply

The online application is available on the main webpage of the university. You have to fill the application online and submit the same. In order to facilitate filling of the application, computer facilities are provided at all centres where registration is done.

If you have prior educational qualifications which are not listed in the Appendix 1, you can apply for an evaluation of your qualifications using the prescribed form (Application for Evaluation of Qualifications for Exemptions) attached at the end of this Guidebook or downloaded from Faculty web page. The *evaluation form and the detailed documents* should be sent to the Programme Coordinator as mentioned in the form *well before the application*

closing date. After this evaluation the faculty will decide whether your qualifications can be considered for granting exemptions.

Along with the application you will be given a notice indicating the date, time and the venue of the selection test. If any sudden changes take place with regard to the selection test and the interview, such changes will be notified in the webpage of Faculty of Engineering Technology and you are required to visit the webpage regularly. In the online application form you must provide a correct and active email address and a telephone number for further communication.

Selection criteria

You must sit and pass the selection test in order to become eligible to register to the BSE programme. Those who pass the selection test, will be officially informed by email and called for registration. The final list of selected candidates will also be published in OUSL main webpage under selection test results.

Registration for BSE

When you are selected for the BSE programme you will be called for registration. You will receive a voucher for the payment of tuition fees along with other fees and payment information. Payment receipt, along with your original certificates, should be brought to the counselling desk at the OUSL on the day of the registration. You will then be offered courses according to the qualifications you already have.

The actual academic year of the programme will start on September 4, 2021. English for Academic Purposes (EGAP), a separate course offered by the Department of English Language Teaching (DELT), ICT Challenges given in Future Career Bridge, and Empowering for Independent Learning (EfIL) will start in May 2021.

Fees

Students have to pay course fees as per below stated.

- Registration fee – Rs. 600/=
- Facilities fee – Rs. 1500/=, and
- Library Facilities fee – Rs. 200/=. (A refundable deposit of Rs.500 will be charged when you borrow books from the library)

- Per Credit fee – Rs. 3000/=

- Payment for the EGAP course only (course to be completed before the academic year): Rs.5500/=

- Exemption fee per credit- Rs. 60/=

Fees for foreign nationals living in Sri Lanka will be 3 times the fee charged for local students. You may contact the International Relations Unit of OUSL before applying online.
This programme is not offered overseas as of yet.

Please note that the tuition fee will not be refunded after you get registered to the programme.

Awards/Scholarships

"**Virtusa Academic Excellence Award for the Best Student in Bachelor of Software Engineering**" is granted for the student with the highest grade point average (GPA) upon graduation. The award consists of a gold medal and a cash prize.

The Open University also grant three scholarships for the best three students of that particular academic year based on the performance of the previous year.

Loan Schemes

Students will be able to obtain a loan from a State Bank to pay for tuition fee. More information of this loan will be given in due course.

Courses

The Programme of study consists of a combination of taught courses and other requirements such as industrial placement. You are guided at registration to select a set of courses that is optimal for you. To register for a particular course, you need to fulfil given prerequisites for that course either by gaining exemptions or by successful completion.

Course Code

Each course has a course title and a unique course code.

The letters and numbers denoting the Departments, Categories, Levels, and Credit Rating make up the code of a course. For example, a course having the code EEX3467 provides the following information:
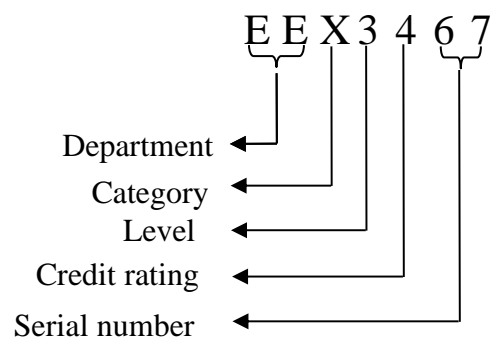
Accordingly this particular course is offered by the Department of Electrical and Computer Engineering. It is an Engineering (X) category course at level 3 with a credit value of four (4) The serial number of the course is 67.

Departmental Codes

The first two letters of the course codes indicate the department offering the particular course. The letters allocated for some departments of the Faculty of Engineering are as follows:

Department	Code
Electrical and Computer	EE
Agriculture & Plantation	AG
Civil Engineering	CV
Mathematics and Philosophy	MH
Mechanical Engineering	DM

The code **VT** denotes a virtual course. These are not courses that you can enrol in, but, when you possess qualifications for which you cannot be granted an exemption from an existing course, you gain credits with appropriate category, and level.

Category of Courses

Courses and other requirements fall into distinct *Course Categories* with specific alphabetical letters denoting them:

Engineering Courses	X
Engineering projects	Y
Mathematics	Z
Industrial courses	I
Management	M
General courses	J
Industrial placement	W
Computer literacy	K
Language Courses	L

Course Levels

Each course is also assigned a *Level*, between three (3) and six (6). The level indicates the relative complexity and advancement of the course content.

Level 3 indicates first level in the undergraduate programme while Level 6 denotes the highest level in the undergraduate programme.

Credit Rating

Each course is also assigned a credit rating, reflecting the academic value of the course and the amount of time a student is expected to devote to that course. The total effective time expected to be spent by an average student for a course in which the academic value is one credit is about 50 *notional hours* of study time.

At the OUSL, the maximum number of credits a student can offer per academic year is limited to thirty eight (38).

The completion of minimum 130 credits is needed to complete the BSE Degree.

Courses in BSE

List of courses available for the BSE is given below.

Curriculum for Software Engineering Specialisation

Compulsory Courses

Course		Prerequisites
Level 3		
AGM3263	Communication Skills	None
EEI3346	Web Application Development	None
EEI3262	Introduction to Object Oriented Programming	None
EEI3266	Information Systems and Data Management	None
EEX3373	Communication and Computer Technology	AGM3203 (CR), EEX3467(CR)
EEX3467	Software Engineering Concepts and Programming	None
MHZ3459	Basic Mathematics for Computing	None
Level 4		
AGM4307	Economics and Marketing for Engineers	Pass in 18 credits at Level 3
EEI4267	Requirement Engineering	EEX3467(P)
EEI4346	Web Technology	EEI3346(CR)
EEI4361	User Experience Engineering	EEX3467(EL), Pass in 15 credits
EEI4362	Object Oriented Design	EEI3262(CA), EEX3467(CA), Pass in 15 credits
EEI4366	Data Modelling and Database Systems	EEI3266(CA), Pass in 15 credits
EEX4465	Data Structures and Algorithms	EEX3373(CA), MHZ4256(CR), Pass in 15 credits
EEY4189	Software Design in Group	EEX3467(P), {EEI3262(CA) or EEI3269(CA)}, Pass in 26 credits at level 3
MHZ4252	Mathematics for Computing	None
MHZ4377	Applied Statistics	None
Level 5		
CVM5402	Accounting for Engineers	AGM4307(P)
EEI5467	Software Testing and Quality Assurance	EEX3467(P), 30 credits pass
EEI5270	Information Security	EEX3467(P), EEX4465(P), pass in 30 credits
EEX5362	Performance Modelling	Pass in 40 credits, EEI3346(P), MHZ4377(P)
EEX5563	Computer Architecture and Operating Systems	EEX3373(P) , Pass in 36 credits
EEW5811	Industrial Training – Software	EEX3467(P), EEI4362(P), EEX4465(P), Pass in 40 credits
MHZ5375	Discrete Mathematics	MHZ4256(CA), MHZ3459(P)
MHJ5372	Technology, Society and Environment	Pass in 45 credits

Course	Prerequisites
Level 6	
DMM6601 Management for Engineers	CVM5401(CA), pass in 60 credits
EEI6360 Software Project Management	Pass in 60 credits
EEI6171 Emerging Technologies	Pass in 60 credits
EEI6567 Software Architecture and Design	EEX3467(P), EEI4362(P)
EEM6202 Professional Practice	Pass in 30 credits in level 3, Pass in 24 credits at level 4 or above
EEX6363 Compiler Construction	EEX4465(P), MHZ5355 (P), pass in 60 credits
EEY6189 Research Methodology and Project Identification	Pass in 60 credits
EEY6689 Final Project – Software Engineering	EEI6360(CR), EEI6567(CR), Pass in 75 credits

Elective Courses

[CR- Concurrent Registration; P- Pass; CA – Continuous Assessment Pass]

Course	Prerequisites
EEI3269 Introduction to Mobile Application Development	None
EEI3668 Graphic and Interactive Multimedia design	*None*
EEI3372 Programming in Python	None
EEM3366 Introduction to Business Studies	None
LLJ3245 Introduction to Laws of Sri Lanka	*None*
CSI3361 Computer Security Concepts	None
ISI3376 Fundamentals of Information Systems	None
MHJ4271 History of Technology	Pass in 20 credits
EEX4373 Data Science	EEI4366(CR), Pass in 30 credits at level 3
EEI4369 Mobile Application Development for Android	EEI3269(CR)
EEY4489 Higher Diploma Project – Software Engineering	Pass in 45 credits
EEX5376 Embedded Systems and Internet of Things	EEI3266(P), EEI3372(P), AGM3203(P), EEX3373(P)
EEI5280 Creative Design	Pass in 45 credits
EEI5466 Advanced Database Systems	EEI3266(P), AGM3203(CR)
EEX6340 AI Techniques and Agent Technology	EEX4465(P), EEX3467(P), MHZ5355(P)
EEX6377 Principles and Applications of Data Mining	EEX4465(P), MHZ4357(P), EEI4366(P), Pass in 45 credits
EEX6278 Neural Networks and Fuzzy Logic Applications	EEX3467(P), Pass in 65 credits

*Not offered in 2021/2022

Semester 1 – 2021/2022 Recommended course list to Register

	Course	Prerequisites
Level 3		
EEI3262	Introduction to Object Oriented Programming	None
EEI3266	Information Systems and Data Management	None
EEI3269	Introduction to Mobile Application Development	None
EEI3346	Web Application Development	None
EEX3467	Software Engineering Concepts and Programming	None
MHZ3459	Basic Mathematics for Computing	None
Total credits – 16		

Semester 2 – 2021/2022 Recommended course list to Register for BSEHons

	Course	Prerequisites
AGM3263	Communication Skills	None
EEI4346	Web Technology	EEI3346(CR)
EEX3373	Communication and Computer Technology	AGM3203 (CR), EEX3467(CR)
	Elective courses – Select 3 courses	
EEI3372	Programming in Python	None
EEM3366	Introduction to Business Studies	None
CSI3361	Computer Security Concepts	None
ISI3376	Fundamentals of Information Systems	None
	Total credits – 17	

Semester 2 – 2021/2022 Recommended course list to Register for those who wish to transfer to Computer Science or Information Technology in the Second year

	Course	Prerequisites
AGM3263	Communication Skills	None
CSI3361	Computer Security Concepts	None
ISI3376	Fundamentals of Information Systems	None
EEX3373	Communication and Computer Technology	AGM3203 (CR), EEX3467(CR)
MHZ4252	Mathematics for Computing	None
EEI4346	Web Technology	EEI3346(CR)
	Elective courses – Select one course	
EEI3372	Programming in Python	None
EEM3366	Introduction to Business Studies	None
	Total credits – 19	

Prerequisites

To offer courses one has to satisfy the prerequisites for each course. These pre-requisites are given in the above Table.

Industrial placements

It is mandatory for you to complete a minimum period of 6 month industrial training at a software company. From this placement, students gain on-site experience by working alongside professionals and the opportunity to observe good practices as well as developing necessary skills to work as a software engineer.

The Department is working closely with the Sri Lanka Association for Software and Service Companies (SLASSCOM) to give you an opportunity to do your training in the best software companies in the country. SLAASCOM has informed its member companies to offer training placements for OUSL students. The University facilitates the process by forwarding student CVs to a number of companies through SLAASCOM. The actual selection criteria are decided by the companies themselves. Generally this involves a technical test and/or an interview.

Alternatively, if you are already employed or have found a training placement on your own at a company, discuss with the Manager/CITES. If the credentials of the company are acceptable to the University, you will be allowed to carry out training at the company. For claiming exemption for training based on working experience you have to offer the course ***EEW5811 Industrial Training – Software***

Study system

The Open University of Sri Lanka conducts the study programmes in distance mode with a strong emphasis on the multimedia instructional materials, printed materials and audio-visual aids. The Faculty of Engineering Technology is a pioneer in the world in delivering engineering courses in the distance mode.

The central element of self-study is the online class in the Moodle Learning Management System and the Study Guides produced by the University, which provide a series of carefully designed activities and self-assessment questions in order to develop critical and creative thinking abilities. In addition, day schools (face-to-face sessions), laboratory work, field work and seminars. For a group of 50 students, a course tutor will be assigned to conduct online activities and lab practice sessions and assessments. Pre-scheduled day schools are conducted by the academics of Faculty of Engineering Technology, Academic staff of CITES and professionals from the industry. These day schools provide the opportunity for the students to discuss the issues encountered in self-learning of a particular course. Facilities available for self-learning, such as library facilities, Audio-Visual Resource Centre, elementary computer labs, and more can be found in the section *Student Services*.

The online classrooms in the Learning Management System, play a vital role in the distance education programmes offered by the university. Each course offered in this study programme has an online classroom which provides access to every registered student over the web. Following are some of the benefits of an online classroom:

- access to the latest course information and learning resources

- prompt feedback from the course coordinators

- peer learning through active participation in group discussions happening in the classroom

- online submission of course work.

The OUSL facilitates lifelong learning. Therefore, the programmes offered by OUSL open up avenues for everyone, especially for employed persons. Thus the University makes every effort to schedule activities during the weekends and public holidays as far as possible. However, certain activities such as laboratory sessions and examinations may have to be scheduled during

weekdays. Since the activity schedule is given to the students at the beginning of the academic year, we expect you to plan your work well in advance.

Course Activities

Each course has different activities. Tutor Marked Assignments (TMAs), Laboratory Work, Mini Projects, Case Studies, Presentation Sessions, Online Quizzes (OQs) and Continuous Assessment Tests (CATs) are some. The activities would depend on the course requirements.

Assessment

Each course in a programme of study is assessed separately. Assessment consists of two components, namely Continuous Assessment and Final Examination. The purpose of the continuous assessment is to facilitate student learning, which involves activities such as TMAs, laboratory work, Mini Projects, Case Studies, Presentation sessions, OQs, and CATs.

Awarding of the Degree

In order to gain the degree, students have to fulfil the minimum credit requirements in each category and obtain 130 credits altogether from level 3 and above. However, students cannot claim credits over the maximum limit for each category and should obtain credits subject to the restrictions for levels and categories of the courses. This has been summarised in Table 1.

Credit requirement for Higher Diploma is summarised in Table 2.

Degrees are awarded either with First Class, Second Class (Upper), Second Class (Lower) or Pass. The applicable class will be decided according to the Grade Point Average (GPA) which is computed using the grades obtained for the courses and their credit ratings as shown in the Appendix 3.

The best student with the highest GPA which is above 3.3 is awarded Virtusa Academic Excellence Award which is sponsored by Virtusa (Pvt) Ltd. The award consists of a gold medal as well as cash.

Grade Point Average (GPA)

The GPA shall be computed by considering the courses at levels 4, 5, and 6 totalling to 70 credits. In selecting the courses for 70 credits the following sequence will be followed.

(1) Compulsory courses at levels 5 and 6

(2) Non-compulsory courses at levels 5 and 6

(3) Compulsory courses at level 4

In a situation, where exactly seventy (70) 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.

$$GPA = \frac{\{\sum(Credit Rating of the Course) * (GPV)\} + (Part Credit of the Course) * (GPV)}{70}$$

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 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.

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

For 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.

- Level 4 (considering all Categories): 15
- Level 4 (considering X and I Categories): 8
- Levels 3 and 4 (considering X, I and Z Categories): 20
- Total (considering all Categories and all levels from 3 to 6): 33

Table 1 - Course credits requirements for the Award of the Bachelor of Software Engineering Honours Degree

Category	Minimum credits	Maximum credits
Industrial (I)	65 subject to a minimum of 30 credits being at levels 5 and 6, of which minimum of 15 credits at level 6	80 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	30, subject to a minimum of 12 at levels 5 or above
General (J)	5	20
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 subject to a minimum of 6 credits being at level 6	12 subject to a minimum of 6 credits being at level 6
Language (L)	0	4
Industrial Training (W)	8	8
Total	130 subject to a minimum of 60 credits being at levels 5 and 6, of which at least 30 credits at level 6.	

Table 2 - Course credits requirements for the Award of the Higher Diploma in Software Engineering

Category	Minimum credits	Maximum credits
Industrial (I)	30 at levels 3 and 4, of which minimum of 15 credits at level 4	44 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	0	4
Total	65, subjected to a minimum of 30 at level 4	

*Only those who cannot complete Industrial Training will be offered the Higher Diploma Project

Future career

When you graduate from the BSE degree programme, you are armed with a degree as well as experience in the industry, so you can embark on your career with confidence. Your career path, starting from Software Engineer, can go up to Tech Lead, and then to Project Manager or Software Architect depending on whether you choose to embark in a management or technical career. You can also start as a Tester or Quality Assurance (QA) Engineer and go up to QA Lead and then onto QA Manager or Quality Analyst.

Student services

Student Affairs Division

The Student Welfare Division maintains personal and academic records of all OUSL students. Any change of address, medium of study, study centre, civil status, change of courses, etc., should be immediately informed in writing to:

> Senior Assistant Registrar,
> Student Welfare Division,
> The Open University of Sri Lanka,
> P. O. Box 21,
> Nawala, Nugegoda - 10250

When writing the letter, your name, registration number and the programme of study must be indicated.

You are required to provide your **contact numbers** and **email address** to our Programme Coordinator at the BSE office. Any changes to your personal information must also be immediately informed to the Programme Coordinator as well.

Counselling

General counselling by the staff of the BSE programme on academic matters is available to all prospective applicants and students. You can contact the BSE office for this purpose Further, Programme Coordinator/ BSE programme may be contacted for all non-academic matters. (Tel.: 011 2881081; Email: infobse@ou.ac.lk)

Computer Laboratories in Regional and Study Centres

To facilitate participation of students in post-secondary online education, computer laboratories are available at a number of Regional and Study centres free of charge. They are located at the existing OUSL regional centres, in universities and at Sri Lanka Institute of Advanced Technical Education (SLIATE). These labs are equipped with all modern state-of-the art equipment necessary for online education, such as an average 25 computers, printers, scanners, video conferencing facilities, wireless access, faxes and photocopying machines. All OUSL students are entitled to use these facilities free of charge, though a monthly time quota is enforced.

Centre	Code	Centre	Code	Centre	Code
Anuradhapura	NC50	Badulla	UP80	Kegalle	SG91
Colombo	WP10	Monaragala	UP82	Kurunegala	NW70
Jaffna	NP40	Galle	SP32	Kilinochchi	NP42
Kandy	CP20	Gampaha	WP11	Polonnaruwa	NC51
Matara	SP30	Hatton	CP21	Puttalama	NW71
Ambalangoda	SP31	Ambalantota	SP33	Ratnapura	SG90
Ampara	EP61	Kalutara	WP12	Trincomalee	EP62
Matale		Bandarawela		Batticaloa	
Mullaitivu	NP43	Mannar		Vavuniya	NP41

Software Engineering Laboratory

A separate computer lab for software engineering is located at Block 12 at the main campus at Nawala. The practical component of the courses is done here. In addition, students are given the opportunity to use the software engineering laboratory whenever it is free.

Library Facilities

Students have access to the main library of the University at Nawala, Colombo and the four regional libraries at Anuradhapura, Batticaloa, Jaffna, Kandy and Matara Regional Centres. The main library is well stocked, but lending facility to students is limited to two books at a time, and requires a deposit. It is open throughout the year except on the seven "University Holidays" and a few days during the Sinhala and Tamil New Year and Christmas. The main library has an Audio-Visual Resource Centre (AVRC) with a substantial collection of video and audio material in many subject areas for the use of students. Access to internet, WiFi coverage and photocopying facilities are also available. The study centres also have a small collection of books, and audio- visual material, mainly for reference.

Temporary Residential Facilities

The University provides temporary residential facilities at Colombo, Kandy and Matara Regional Centres for a limited number of students attending approved academic activities. When requesting for temporary residential facility you have to get the hostel form certified by the relevant academic coordinator or a senior academic staff member from the relevant department by producing your student record book.

Appendix 1

Exemptions applicable for Bachelor of Software Engineering 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

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

Qualification	Courses Exempted
[Higher] Diploma in Technology (OUSL) Civil, Textile, Agriculture	VTI3F00, MHZ3459
[Higher] Diploma in Technology (OUSL) Electrical, Electronics, Mechanical, Mechatronics	VTI3F00, MHZ3459, EEX3373
Diploma in Technology (OUSL) Computer	VTI3F00, MHZ3459, EEX3373, EEX3467, EEX4465
BSc/BA or equivalent University degree (except specialisation in Computing)	VTI3G00
BCS (British Computer Society) Certificate	VTI3F00, 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, MHZ3459, EEX3373
NDICT (National Diploma in Information and	VTI3F00, EEX3373

Communication Technology)	
Diploma in System Design and Programming, Vocational Training Authority (VTA)	VTI3F00, EEX3373
OUSL Faculty of Engineering Technology MHZ3530 or MHZ3531	MHZ3459

Course Exemptions

Qualification	Courses Exempted
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 MHZ4530	MHZ3459
OUSL Faculty of Engineering Technology EEX3533 or EEX3336	EEX3373
OUSL Faculty of Engineering Technology EEX3363 (DIST)	EEX3373
OUSL Faculty of Engineering Technology EEX4535	EEX4465
OUSL Faculty of Engineering Technology EEX4547 or EEX3517or EEX3417	EEX3467
OUSL Faculty of Engineering Technology EEX5536 and ECX5535	EEX5563
AAT- Association of Accounting Technicians (Sri Lanka) - Stage II or III	VTI3G00

Appendix 2

Scheme of Assessment

Below given information are extracted from the Regulation applicable to Bachelor of Software Engineering Honours degree programme.

5.1. The Overall Assessment Mark (Z%) of a student in respect of any course, other than training courses shall be based on the Overall Continuous Assessment Mark (X%) and the mark obtained at the Final Examination (Y%) and shall be computed as follows:

$$\text{if } Y \geq 40 \text{ and } X \geq 40 \quad \text{then } Z = (0.5\,X + 0.5Y)$$

$$\text{if } Y < 40, \quad \text{then } Z = Y$$

5.2 **The Overall Assessment Mark (Z%) of the Industrial training courses shall be based** only on the marks obtained at the final examination ($Z = Y$)

    5.2.1 The assessment of Industrial training courses shall be carried out in accordance with the Faculty approved guidelines, by an Assessment Panel appointed by the Board of the Faculty of Engineering Technology and approved by the Senate.

    5.2.2 The Overall Assessment Mark (Z%) of a student in respect of a course offered by any other Faculty of The Open University of Sri Lanka, except Faculty of Engineering Technology, shall be determined by the relevant Faculty offering the course, with the approval of the Senate.

5.3 Each student who sits for the Final Examination of a course shall be awarded a grade in respect of such course based on the Overall Assessment Mark (Z%), as specified in Schedule 2 of this Regulation and a Grade Point Value (GPV) shall be awarded in accordance with Section 5.5 in Part V of the By-Law No. 21.

Schedule – 2 in Regulation

Grades allocation

85 < Z :A+	63 < Z < 70: B+	45 < Z < 50: C+	30 < Z < 35: D+
75 < Z < 85: A	55 < Z < 63: B	40 < Z < 45: C	20 < Z < 30: D
70 < Z < 75: A-	50 < Z < 55: B-	35 < Z < 40: C-	Z < 20: E

A+, A, A-, B+, B, B-, C+, and C, constitute Pass grades.

Calculation of Grade Point value from Grades

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

Part VI - Award of the Degree of Bachelor of Software Engineering Honours

6.1   A candidate eligible for the Award of Degree of Bachelor of Software Engineering Honours in accordance with this Regulation shall supplicate for the same to the Deputy Registrar/ Senior Assistant Registrar/ Assistant Registrar of Examinations before the date as determined by the university on the prescribed form.

6.2   A candidate who satisfies the requirements for the award of Degree of Bachelor of Software Engineering Honours shall be awarded such Degree with Pass, Second Class (Lower Division), Second Class (Upper Division) or First Class provided he/she satisfies the requirements specified in Sections 6.8, 6.9, 6.10 and 6.11 respectively in this Regulation, within such period specified in Section 6.4 of this Regulation.

6.3   -

6.4   A candidate shall acquire the course credit requirement as specified in Sections 6.2 and 6.3 of this Regulation within a minimum period of four (04)academic years and a maximum period of twelve (12) consecutive academic years from the date of his/her first registration considered for the award of the Degree of Bachelor of Software Engineering Honours. However, the students who receive course exemptions shall be exempted from the specified minimum period for the completion of the study Programme.

6.5   –

6.6   –

6.7   –

6.8   - A student shall be awarded a Pass in the Degree of Bachelor of Software Engineering Honours, if he/she has,

6.8.1   Obtained a minimum of one hundred and thirty (130) course credits from The Levels 3, 4, 5 and 6 of the Programmme of Study as specified in Table 1 of this Regulation with a GPA of 2.00 or above, in accordance with the Section 6.8.2 and Section 6.8.3.

6.8.2   The course credits as specified in Section 6.8.1 shall not exceed the maximum course credits specified for a Category as specified in Table 1 of this regulation. If a student has obtained course credits in excess of the maximum specified for

a Course Category, the excess course credits shall not be considered when computing the total credits. Such excess course credits shall be eliminated by considering Level 3 courses first and then Levels 4, 5 and 6. In doing so, it shall be ensured that the maximum possible credits are counted in each category. Such eliminated courses shall not be in the compulsory course combinations shown in Schedule 1(a) of this Regulation.

6.8.3   The acquisition of the required course credits shall be subjected to the restrictions laid down in Schedule 1(d) of this Regulation, which specifies certain combinations of courses as being "Excluded Combination of Courses".

6.9   A student shall be awarded Second Class (Lower Division) in Bachelor of Software Engineering Honours if he/she has obtained a Pass in accordance with the Section 6.8 above with a GPA of 3.00 or above,

6.10   A student shall be awarded Second Class (Upper Division) in Bachelor of Software Engineering Honours, if he/she has obtained a Pass in accordance with the Section 6.8 above with a GPA of 3.30 or above, and,

6.11   A student shall be awarded First Class in Bachelor of Software Engineering Honours if he/she has, obtained a Pass in accordance with the Section 6.8 above with a GPA of 3.70 or above.

Appendix 3

Application for Evaluation of Qualifications for Exemptions

Who needs to apply for Evaluation of Qualifications?

Only those who possess qualifications **NOT listed in the Student Guidebook 2021/22** need to apply.

IMPORTANT

Please note that only full qualifications are considered, and part qualifications will not be accepted. You are advised to check your qualifications with relevant departments and apply only if necessary.

The following documents must be attached to the Application Form:

    (a) Certified copies of all Educational/Professional Qualifications

    (b) Certified copies of the Syllabi of each subject of the course/programme to be evaluated

    (c) Certified copies of past papers of each subject of the course /programme to be evaluated

    (d) Handbook (Student Guidebook) of the Institution from which each qualification has been obtained

Note: Please note that applicant should provide certified English translations if the originals are in any other language.

The completed application form with relevant documents must be submitted to the Director, Centre for IT Education Services (CITES), The Open University of Sri Lanka, Nawala, Nugegoda as early as possible. **Applications received after April 20, 2021 or incomplete applications will not be processed**.

Please note that Courses in Level 3 and Courses in Level 4,5,6 will be delivered in 2 different delivery cycles. Therefore, only selected courses offered by the Dept. of Electrical and Computer Engineering in higher levels are available to offer in 2021/2022.

If you apply for Evaluation of Qualifications, please remember to ask at the registration counter whether you have been granted additional exemptions, when you come for document verification.

Note: The exemption form can be downloaded from the faculty webpage:

http://www.ou.ac.lk/engineering-technology/

Application for Evaluation of Qualifications for Exemptions
Academic Year 2021/2022

Part A

Student's Personal Information:

1. Name of Student with initials:

2. Full Name:

3. Home Address:

4. Telephone: Home:
                         Mobile:

5. Email address:

6. Have you checked whether your qualifications are already listed in the Student Guidebook 2021/22?   Yes/No

Part B

1. **Please tick the programme/field you hope to request exemptions at OUSL**

	Agricultural & Plantation Engineering	
	Civil Engineering	
	Computer Engineering	
Bachelor of Technology Honours in Engineering	Electrical Engineering	
	Electronic & Communication Engineering	
	Mechanical Engineering	
	Mechatronics Engineering	
	Textile & Clothing Engineering	
	Agriculture	

Bachelor of Industrial Studies Honours in Engineering	Apparel Production & Management	
	Fashion Design & Product Development	
	Textile Manufacture	
Bachelor of Software Engineering	Software Engineering	

2. Entry qualification

G.C.E. (A/L) Examination Results

G.C.E. (A/L) *Tick the relevant*		Subject	Grade	Other Subjects	Grade
		Mathematics			
Local		Physics			
Cambridge		Chemistry			
Edxcel		English			

3. Any other qualification (please specify)

4. **List out the courses/subjects/programmes already qualified and relevant courses *in OUSL programme.*** From which exemptions are requested by you. Indicate the relevant course codes by referring the Student Guide Book

Relevant courses/subjects/programmes qualified		Relevant Courses in OUSL programme from which , exemptions are requested	
Course Code	Course Title	Course Code	Course title

Part C

Provide the particulars of the Qualification you have already gained and that need to be evaluated:
(If you possess more than one qualification to be evaluated, please include additional copies of Part C & Part D of this form together with relevant documents)

Title of the Course/Programme	
Title of the award (i.e. Qualification)	
Name & Address of the Institution which awarded the above-mentioned qualification	
Duration of the Course/Programme	
Year of the award	
Is it Full time/ Part time?	
Entry requirements to follow the course/programme	

Part D

Details of courses/programme mentioned in Part C

1. **Number of hours spent on each subject (Use separate sheet if necessary)**

Subject/Course	Year	Time spent (Hours)			
		Lectures	Tutorials	Lab Work	Training

2. **Provide the Laboratory experiments done in each subject to be evaluated (Use separate sheet if necessary)**

Signature of Applicant: …………………………………………………….....   Date: …………………….

_____

For Office Use Only

Exemptions Granted for the Applicant:

Department	Qualifications considered	Exemptions Granted (State if common for all)	Signature of the Head of the Department	Date