



**PROSPECTUS
2023/2024
TRINCOMALEE CAMPUS
EASTERN UNIVERSITY
SRI LANKA**



வசவார்கை விவா சீட்டு
பிரயோக விவா சீட்டு
FACULTY OF APPLIED SCIENCE

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The Faculty of Applied Science conducts three-year degree programmes under the semester-based, course unit system in English medium. The degree programme is based on the bi-model semester system. Each semester consists of 15 weeks of academic activities. Each academic year will be considered as level 1, level 2 and level 3 respectively.

The Faculty of Applied Science offers two degree programmes at present. They are three year degree programmes conducted through 6 semesters.

DEGREE PROGRAMS

Department of Computer Science

- Bachelor of Science in Computer Science

(BSc (Computer Sc.)) - 3 Years

Department of Physical Science

- Bachelor of Science in Applied Physics and Electronics

(B.Sc. in Applied Physics and Electronics)



DEPARTMENT OF COMPUTER SCIENCE



Dean
Mr. S. Thadchanamoorthy
Senior Lecturer Gr-I
MPhil in Computer Science [UoC]
M.Sc in Computer Science [UoC]
B.Sc (Elect. & Electronics Eng) [UoP]



Head
Ms. T. Thanushya
Senior Lecturer Gr-II
MPhil in Computer Science [UoK]
M.Sc in Computer Science (UoP)
B.Sc (Spl) in Computer Science
[VCUJ]



Mrs. K. Khedika
Lecturer
M.Sc in Computer Science [SAU, India]
B.Sc in ICT [VCUJ]



Mr. A. Suthakaran
Lecturer (Probationary)
On Study leave
M.Sc in Information Technology
[UoM]
B.Sc in Computer Science [UoJ]

DEPARTMENT OF COMPUTER SCIENCE



Ms.S Disne
Lecturer (Probationary)
On Study leave
B.Sc (Hons) in Computer
Science (EUSL)



Mrs. K. Tharmini
Lecturer (Probationary)
On Study leave
B.Sc (Hons) in Computer Science (UoJ)



Ms. S.Piyanka
Lecturer (Probationary)
MSc. In Computer Science
(special) Data Science,
Analytics and Engineering
B.Sc (Spl) in Computer Science
(SEUSL)



Ms. P. Vithusia
Lecturer (Probationary)
B.Sc (Spl) in Computer Science &
Technology (UWU)



Ms. J. Janani
Lecturer (Probationary)
B.Sc (Hons) in Computer Science (UoJ)

DEPARTMENT OF COMPUTER SCIENCE



Mr. W. Sriwathsan
Instructor in Computer Technology Gr I
M.Sc in Computer Science (UCSC)
B.Sc in Physical Science (EUSL)



Mr. B. Christopaul
Instructor in Computer Technology Gr II
M.Sc in Science Education (EUSL)
M.Sc in Computer Science (UoP)
B.Sc in Physical Science (EUSL)

DEPARTMENT OF COMPUTER SCIENCE



Mrs. U.Telahini
Management Assistant Gr.I



Mr.N.Sivakumar
Work Aids

COMPUTER SCIENCE DEGREE PROGRAMME

The 3 year Computer Science Degree is named as follow;

- Bachelor of Computer Science

CREDIT UNITS

For theory courses, 15 hours of lectures is equivalent to one credit unit. For practical course, 30-hours of work is considered as one credit unit. This is applicable for the entire semester. Further, a research work will be given three credit units for the degree programme. The duration of research work will be the entire semester period. Each student has to complete 30 credits per year with total of 90 credit units to obtain a General Degree.

GENERAL DEGREE PROGRAMME

The General Degree Programme is offered in six semesters. All the third year second semester students should undergo for a six month Industrial Training/ Project (CS3235), which carries 3 credits GPA, at the software Industries/ Companies. Therefore, as soon as they complete their semester examination, they will be placed at the software industries for the training purpose. Those who are unable to go under industrial training, should be able to complete an industrial project under a supervisor from a software industry and a suitable supervisor from the Department of Computer Science.

The elective courses are not included into the 90 credits requirement for General Degree Programme. Written evidence will be provided by the examination branch as a certificate for any extra elective courses followed by the students on their request.

EXAMINATION STRUCTURE

The final examination for each course will be conducted at the end of the semester. After each semester, a study leave period of two weeks is given and then semester examinations are conducted within a period of four weeks. Every theory paper will be of 2 to 3 hours duration and the duration for the practical courses will be based on the number of credit units. Two questions will be set for a credit unit for one hour (i.e.: if there are 3 credits, the

paper will be of 3 hours with 5 questions). There will be no choice of questions. The continuous assessments will also be evaluated for each subject.

ATTENDANCE

All registered students are required to attend all lectures, tutorials, and practical classes, 80% attendance is compulsory for both theory and practical classes. Any students do not have 80% of attendance will not be allowed sit for the semester examination.

ENGLISH LANGUAGE REQUIREMENT

English continues to be the medium of instruction in the Faculty. At the same time two year general English Proficiency course will be conducted by the Department of Languages & Communication Studies. Students are expected to obtain at least C pass at the General English Proficiency examination conducted every year. Students are expected to complete the General English Proficiency requirement prior to the award of degree. Students, who pass this examination will be provided certificate in General English Proficiency.

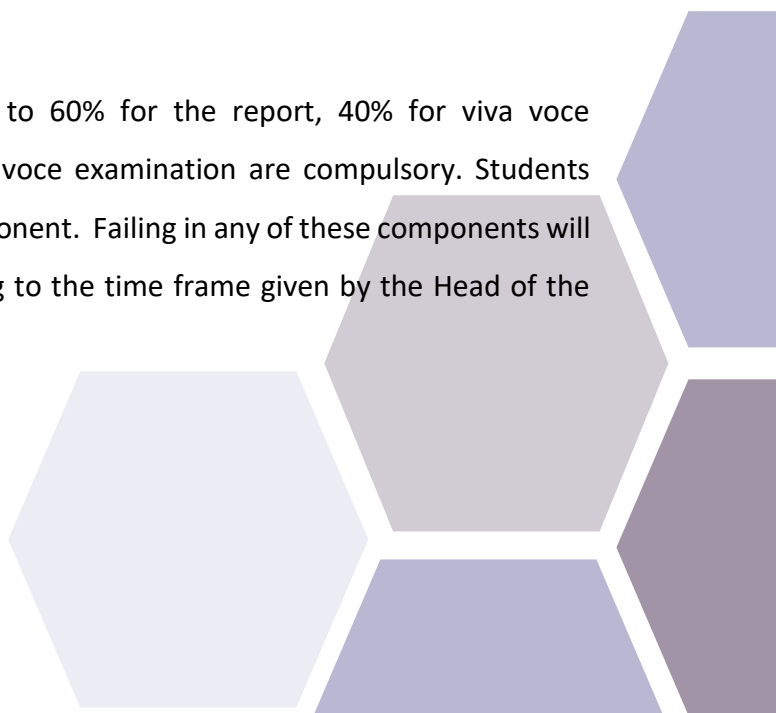
EVALUATION SYSTEM

Theory and practical examinations will be based on the following composition individually.

End semester examination	= 65%
Continuous assessment	= 35%

Industrial Training

Industrial training/ Project will be subject to 60% for the report, 40% for viva voce examination. Both the report and the viva voce examination are compulsory. Students should obtain minimum of 50% in each component. Failing in any of these components will be considered to repeat the work, according to the time frame given by the Head of the Department.



RESEARCH WORK

Research work will be subjected to 60% for dissertation, 20% for Presentation and 20% for viva voce examination. Students should obtain minimum of 50% in each components. Failing in any of this component will be considered to repeat the work, according to the time frame given by the Head of the Department.

GRADING SYSTEM AND GRADE POINT AVERAGE

Based on the scheme of evaluation mention above, marks obtained in respect of a course unit will be graded as follows,

Marks	Grade	Grade Point
75- 100	A ⁺	4.00
70-74	A	4.00
65-69	A ⁻	3.70
60-64	B ⁺	3.30
55-59	B	3.00
50-54	B ⁻	2.70
45-49	C ⁺	2.30
40-44	C	2.00
35-39	C ⁻	1.70
30-34	D ⁺	1.30
25-29	D	1.00
00-24	E	0.00

Grades obtained for courses be then will be converted into “Grade Points” according to the above given table.

The Grade Point (g_i) allotted to a grade should be multiplied by the credit rating (c_i) of the course for which it is given.

The number of points obtained for all the courses taken by a student will be divided by the number of credits due for the programme as a whole to get the Grade Point Average” (GPA)

$$GPA = \frac{\sum c_i \cdot g_i}{G_j}$$

Where:

c_i : - number of credits for the i^{th} course

g_i : - grade point for i^{th} course

G_j : - GPA for an year of study

Weighted average for the General Degree Programme will be equivalent to

$$G_g = (G_1 + G_2 + 2G_3) / 4$$

where G_1 , G_2 , and G_3 are the GPA for the first, second and third year of study respectively.

REPEATING COURSES

- * Those who fail to obtain the required number of credit passes or fail in an examination are required to sit again for such an examination when it is held next.
- * A course unit mark with a grade less than "C" must be repeated.
- * Final mark for a repeating course unit will be the marks obtained in the repeat examination only. (Continuous Assessment mark will not be considered)
- * Raw marks scored for the theory/practical examination except when considering the award of classes for which maximum marks of Grade C will be taken for computation.
- * Candidates, who have failed to obtain the requisite number of credit (C) passes, may proceed to the following year of study and repeat the failed courses at a subsequent examination.
- * The special repeat examination for the final year students may be conducted within 45 days from the release of year III Semester II results.
- * Examination can be repeated not more than three times. A grace chance may be permitted with the approval of the senate.
- * Candidates will not be permitted to re-sit any passed course units but will be given



chances to repeat a course unit with less than C grade, to improve it.

- * In the event, a candidate obtains a lower grade while attempting to improve the grade, she/he will be only entitled to the previous highest grade obtained.

AWARD OF CERTIFICATE

A candidate who wishes to leave the course after completing the first year of study will be awarded 'Certificate' if she/he has,

1. Obtained grades of C or better in course units aggregating to 24 credits and obtained C⁻ grades or better in the remaining 6 credits
2. Obtained a **minimum GPA of 2.0** in the 30 credits taken together.

AWARD OF DIPLOMA

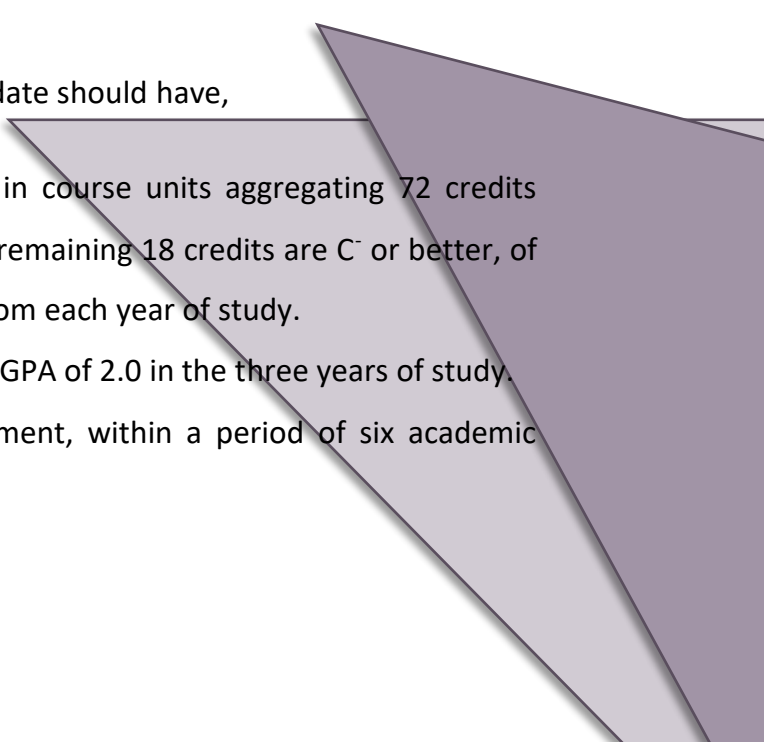
A candidate may be awarded a Diploma after completing first and second years of study, if she/he has,

1. Obtained grades of C or better in course units aggregating to 48 credits and obtained C⁻ grades or better in the remaining 12 credits of which not more than 6 from each year of study.
2. Obtained a minimum cumulative GPA of 2.0 in the two years of study.

AWARD OF DEGREE

General Degree

To be eligible for the BCS (General), a candidate should have,

- a. Obtained grades of C or better in course units aggregating 72 credits provided that the grades for the remaining 18 credits are C⁻ or better, of which, not more than 6 credits from each year of study.
 - b. Obtained a minimum cumulative GPA of 2.0 in the three years of study.
 - c. Completed the relevant requirement, within a period of six academic years.
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AWARD OF CLASSES

A candidate may be awarded a class, if 90 credits are completed in three years of study. If a course is repeated, the maximum grade given to this course will be C.

First Class

A candidate can be awarded First class if she/he,

- a. is eligible for general degree,
- b. obtains minimum weighted GPA of 3.7,
- c. obtains 'A' or better grades in 36 credit units, of which at least 12 credits from the third year of study.

Second Class

A candidate can be awarded **Second (Upper)** if she/ he,

- a. is eligible for general degree,
- b. obtains minimum weighted GPA of 3.3,
- c. obtain grades of B or better in 36 credit units, of which at least 12 credits from the third year of study.

OR

Can be award Second (Lower) if she/he,

- a. is eligible for general degree,
- b. obtains minimum weighted GPA of 3.0,
- c. obtains grades of B or better in 36 credit units, of which at least 12 credits from the third year of study.

EFFECTIVE DATE OF THE DEGREE

The effective date of degree shall be the last date of final year written paper examination or viva voce examination of the industrial project whichever comes last.

COURSE CODE

Every course is assigned a course code. The code will be of the pattern XYSCN,

Where,

- * First two characters (XX) refer to

If,

CO then Common Core course

CS then Computer Science degree course

EC then Elective Course

- * Third character (Y) refers to Year
- * Fourth character (S) refers to Semester
- * Fifth character (C) refers to Credit rating
- * Last character (N) refers to Subject number

BACHELOR OF COMPUTER SCIENCE DEGREE PROGRAMME

YEAR I: SEMESTER I

Course code	Course Title	Hours	Credit
CO1121	Basic Mathematics for Computing	30	2
CO1122	Basic Computer Programming	30	2
CO1112	Practical Work on CO1122	30	1
CO1123	Formal Methods for Problem Solving	30	2
CO1124	Computer Systems & PC Applications	30	2
CO1114	Practical Work on CO1124	30	1
CO1125	Statistics for Science and Technology	30	2
CO1115	Practical Work on CO1125	30	1
CO1126	Management Information System	30	2
GEP-1	General English Proficiency	30	0
		30	15

YEAR I: SEMESTER II

Course code	Course Title	Hours	Credit
CO1221	Systems Analysis & Design	30	2
CO1222	Data Structures & Algorithm	30	2
CO1212	Practical Work on CO1222	30	1
CO1223	Database Management Systems	30	2
CO1213	Practical Work on CO1223	30	1
CO1224	Multimedia & Hyper Media Development	30	2
CO1214	Practical Work on CO1224	30	1
CO1225	Computer Architecture	30	2
CO1226	Social Harmony	30	2
GEP-2	General Proficiency	30	0
		30	15

YEAR II: SEMESTER I

Course code	Course Title	Hours	Credit
CO2121	Advanced Mathematics for Computing	30	2
CO2122	Operating Systems	30	2
CO2112	Practical Work on CO2122	30	1
CO2123	Software Engineering	30	2
CO2124	Internet & Web Design	30	2
CO2114	Practical Work on CO2124	30	1
CO2125	Object Oriented Programming	30	2
CO2115	Practical Work on CO2125	30	1
CO2126	Sri Lankan Studies	30	2
GEP-3	General English Proficiency	30	0
		30	15

YEAR II: SEMESTER II

Course code	Course Title	Hours	Credit
CO2221	Data Communication Systems	30	2
CO2222	Visual Systems Development Tools	30	2
CO2212	Practical Work on CO2222	30	1
CO2223	Computer Graphics	30	2
CO2213	Practical Work on CO2223	30	1
CO2224	Human Computer Interaction	30	2
CO2214	Practical Work on CO2224	30	1
CO2225	Software Management Techniques	30	2
CO2226	Automata Theory	30	2
		30	15

YEAR III: SEMESTER I

Course code	Course Title	Hours	Credit
CS3121	Logic Programming and Expert Systems	30	2
CS3111	Practical Work on CS3121	30	1
CS3122	Advanced Database Management Systems	30	2
CS3112	Practical Work on CS3122	30	1
CS3123	Systems & Network Administration	30	2
CS3113	Practical Work on Cs3123	30	1
CS3124	Data Security	30	2
CS3114	Practical Work on CS3124	30	1
CS3135	Theory of Computing	45	3
	<u>Elective Course * (1 of 3) – Non-Credit</u>		
EC3101	Foundations of Management	45	
EC3102	Organizational Behavior	45	
EC3103	Financial Accounting	45	
			15

- For an **elective** course to be offered, at least five students must be enrolled.

YEAR III: SEMESTER II

Course code	Course Title	Hours	Credit
CS3221	Assembly Language Programming	30	2
CS3211	Practical Work on CS3221	30	1
CS3222	Software Quality Assurance	30	2
CS3212	Practical Work on CS3222	30	1
CS3233	Professional Issues in IT	45	3
CS3224	Computer Networks	30	2
CS3214	Practical Work on CS3224	30	1
CS3235	Industrial Project	-	3
			15

Note: -

- The students, who want to obtain general degree, should complete a research work.
- Industrial Project is mandatory course for all the students and the training will take place at the software industries for 6 months.
- Therefore, as soon as the semester examinations are over, they will be placed at the software industries to fulfill the Industrial Training requirements.

RESULTS

The final determination of results shall be made by a board of examiners consisting of Rector, Dean of the Faculty and Head of the relevant Department.