UNIVERSITY OF COLOMBO, SRI LANKA

UNIVERSITY OF COLOMBO SCHOOL OF COMPUTING

DEGREE OF MASTER OF COMPUTING TECHNOLOGY

BY-LAWS

of the

Degree of Master of Computing Technology

By-Laws made by the University of Colombo under section 135 of the Universities Act No.16 of 1978 as amended subsequently and under section 13 of the University of Colombo School of Computing Ordinance No. 01 of 2002 as amended subsequently.

BY-LAWS

The Council of the University of Colombo on the recommendation of the Senate and the Board of Management and Academic Syndicate of the University of Colombo School of Computing enacts the following By-Laws:

1. (1) These By-Laws may be cited as the Master of Computing Technology By-Laws No .14. of 2024.

   (2) These By-Laws shall come into operation on its receiving approval by the Council or on such other date as decided by the Council.

PART I- GENERAL

Award of Degree

2. Subject to these By-Laws, a student may be awarded the Degree of Master of Computing Technology (hereinafter sometimes referred to as "the Masters Degree") if he/she has -

   a) been a registered student of the University of Colombo School of Computing (hereinafter referred to as 'the School') for the period prescribed by these By-Laws;

   b) completed thereafter, to the satisfaction of the Senate, the Programme of Study, as prescribed by these By-Laws, and/or other Regulations and/or Rules of the University and/or School;

   c) satisfied the Board of Examiners in different forms of Examinations and Assessments including written examinations, practical examinations, oral examinations, assignments, seminars, group projects, independent studies, individual projects, portfolios, oral defense etc., as may be prescribed by these By-Laws and/or any other By-Laws, and/or Regulations and/or Rules of the University and/or the School;

   d) paid all prescribed fees including library fee, registration fee, course fee, supervision fee, examination fee and all other payable dues to the School;

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e) completed the relevant requirements for the award of the Masters Degree within a period of three (3) academic years including the first academic year of registration, subject to the provisions of these By-Laws; and,

f) fulfilled all other requirements prescribed by these By-Laws and/or other relevant Regulations and/or Rules of the University and/or School.

Administration of the Programme

3. The School shall be in charge of the administration and general direction of the Programme leading to the Masters Degree (hereinafter sometimes referred to as "the Programme").

Eligibility for Admission to the Programme

4. No person shall be eligible to be admitted to the Programme unless he/she satisfies the minimum requirements specified in the following paragraphs:

a) A Bachelors Degree in Computing from a University or Institution recognized by the University Grants Commission and/or the University of Colombo;

OR

Any other academic or professional qualification deemed equivalent to a Bachelors Degree by the Senate of the University of Colombo on the recommendation of the School. Each application under this category shall be considered on a case-by-case basis.

AND

b) A pass grade in a general qualifying test conducted by the University of Colombo School of Computing.

AND

c) Pass the selection interview conducted by the University of Colombo School of Computing.

Application for Admission to the Programme

5. (1) Applications for admission of students to the Programme shall be called by an open advertisement published, online or otherwise, by the Registrar under the authority of the School.

(2) Prospective applicants may be required to pay to the School the application fee, application processing fee, qualifying test fee, selection interview fee, and any other fees as shall be prescribed by Regulations and/or Rules of the University and/or School.

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Registration for the Programme

6. (1) A person whose application for admission to the Programme is accepted by the School shall take steps to register for the Programme not later than the nominated date and shall pay the prescribed fees including the library fee, registration fee, course fee, supervision fee, examination fee and any other fees to the School as prescribed by the Council on the recommendation of the Senate and the Board of Management and Academic Syndicate of the School.

(2) When a student is registered for the Programme, such registration shall be valid for one academic year from the first day of the commencement of the Semester.

(3) It shall be the duty and responsibility of the student to ensure that his/her registration continues to be valid.

(4) The registration shall be deemed to have lapsed at the end of its period of validity. A student whose registration has so lapsed may renew such registration for a further period by paying the prescribed renewal fees provided that he/she is eligible to be registered for the Programme in terms of sub-section (5) of this section.

(5) No registration shall remain in force beyond a maximum period of three (3) academic years including the first period of registration. However, this maximum period of three (3) academic years may, under exceptional circumstances, be extended by an academic year subject to the approval of the Senate on the recommendation of the Academic Syndicate and the Board of Management of the School. Each such application for renewal beyond the maximum period of three academic years under any exceptional circumstance shall be considered on a case-by-case basis.

(6) Subject to sub-section (5) of this section, a student whose three (3) academic year period has lapsed may make a written request to the School for a grace chance to complete his/her degree provided that he/she has shown a substantial progress in his/her studies in the previous Semesters. The School shall have the power to consider such requests on a case-by-case basis and recommend to the Senate for its approval.

(7) No person shall be entitled to a refund of any fee paid to the School on any ground whatsoever, except in the case that the number of students who have been so registered for the Programme is insufficient for the Programme to be financially viable. In such a case, the School shall refund to such student the fees which are already received by it on account of the completion of the registration procedure.

PART II- ACADEMIC PROGRAMME

7. (1) The Programme leading to the award of the Masters Degree shall span for one academic year consisting of two Semesters of learning activities and assessments.

(2) The duration of each Semester shall be a continuous period of 15 weeks from its beginning. However, the Senate shall have the authority, on the recommendation of the School, to shorten or extend the duration of a Semester, under exceptional circumstances.

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8. (1) The Programme shall include Course Work consisting of Theory and Practical components, Independent Study and a Report/Portfolio on it, its Oral Examination/Defense and all other examinations prescribed by these By-Laws and/or Regulations and/or Rules.

(2) The Course Work shall consist of lectures, tutorials, practical classes and other assignments conducted online/face-to-face, as shall be prescribed by the Senate on the recommendation of the School. The list of Courses, Compulsory (Core) and/or Optional (Elective), their syllabi and the number, structure and rubric of question papers in each Course shall be those set out under Regulations made by the Senate on the recommendation of the Academic Syndicate and the Board of Management of the School from time to time.

(3) Each Course shall carry a time-based Credit Value as specified under the Regulations and Rules.

(4) The School shall have the authority to offer Courses of different types, including Courses which are Compulsory as Core Courses and/or Courses which are Optional as Elective Courses.

(5) The Senate shall, on the recommendation of the Academic Syndicate and the Board of Management of the School, have the power to change, amend, add to or delete from the Courses, their status as compulsory or optional, their syllabi as well as the number, structure and rubric of question papers in such Courses.

(6) Every student who is admitted to the Degree Programme shall register in each academic Semester for such number of Courses as contributing to not less than such number of Credits as prescribed by Rules and Regulations.

Medium of Instruction

9. The medium of instruction as well as that of assessment/examinations shall be English, and the medium for correspondence shall also be English.

Registration for Academic Courses

10. (1) In each Semester, students shall register for the Core Courses of the Semester and such number of Elective Courses as aggregating to not less than the prescribed number of Credits required for that Semester, if and when Elective Courses are offered by the Programme. The procedure for registering in such Core and Elective Courses, as the case may be, shall be specified by the Board of Study.

(2) When the School decides to offer Elective Courses as part of the Programme, it shall notify the list of Elective Courses available for registration. After notification, if for whatever reason, an Elective Course cannot be conducted and if a student has applied for registration for any such Course/s, he/she shall be permitted by the School to withdraw such application and apply for registration for any other Course/s as the case may be provided that such Course/s is/are being conducted during such Semester.

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(3) A student shall not be permitted to voluntarily withdraw an application for registration for any such Elective Course/s in respect of any Semester unless such withdrawal is permitted by the Board of Study, and no student shall be permitted to apply for registration for any Elective Course/s after the prescribed date.

(4) No student who, without valid reasons acceptable to the Board of Study, fails to register for the required or needed number of Courses, shall be permitted to appear for any assessment or examination of any paper in that Semester.

PART III- ASSESSMENT & EXAMINATIONS

11. (1) The Examinations leading to the award of the Masters Degree shall consist of all two Semester Examinations and an Oral Examination for the defense of the Report/Portfolio on the relevant Independent Study.

(2) Each Semester examination shall consist of one or more than one written paper and such number of components of continuous assessments, assignments, reports, presentations, oral examinations or a combination of such methods of evaluation as prescribed by the Regulations and/or Rules.

(3) Each student who is registered for the Programme shall make an application in the form provided by the School for entry to the relevant Examination.

(4) No application for an Examination made by any student shall be entertained by the School unless the Director of the School has certified that the student took part in the different forms of instruction provided for each Course in the Semester.

(5) A student in a particular Semester of the Programme shall take the Examination for that Semester on the first occasion in which the Examination is held for the particular Course. If the student does not take the Examination for which he/she is registered, in the first available opportunity he/she shall be deemed to have exhausted an attempt at the Examination of the Course, unless the Senate on the recommendation of the Academic Syndicate and the Board of Management of the School decides otherwise due to any valid reason.

(6) It shall be lawful for the School, following due process, to terminate the registration of any student after one warning in writing, if the progress of study made by such student and/or his/her conduct and behavior are unsatisfactory. No refund of any fees shall be payable if and when the registration of such a student is terminated.

12. (1) A student who obtains less than a "C" grade for any Course shall be eligible to retake the assessment/examination in the next available opportunity as decided by the School provided that such Course is available and that he/she is otherwise eligible to retake the assessment/examination.

(2) Such a student shall pay to the School, the prescribed fees for retaking each such evaluation, and such student shall not be entitled to attend any lectures unless the Senate on the recommendation of the Academic Syndicate and the Board of Management of the School decides to permit him/her.

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(3) If such a student makes use of the opportunity to retake the evaluation of such a course, the highest mark scored shall be taken into consideration for the computation of results for the award of the Degree.

Provided, for the computation of results for the award of "Distinction" under sub-section (2) of section 14 of these By-Laws, a GPV of 2.00 only shall be taken into consideration when he/she secures a GPV of 2.00 or more at the re-evaluation.

(4) No Grade or a percentage score or the result of the evaluation of any Course shall receive official recognition for any purpose unless such Grade or percentage or the result of such evaluation, as the case may be, has been approved by the relevant Board of Examiners and the final results pertaining to the award of the Master Degree in the relevant year have been confirmed by the Senate.

Grading System and Calculation of Grade Point Average (GPA)

13. (1) The Range of Marks and the corresponding Grades and Grade Point Values (GPV) shall be those given in Table 1 below:

Table 1
Range of Marks, Grades & their Respective Grade Point Values

Range of Marks	Grades	Grade Point Values (GPV)
90 – 100	A+	4.00
80 – 89	A	4.00
75 – 79	A-	3.70
70 – 74	B+	3. 30
65 – 69	B	3.00
60 – 64	B-	2.70
55 – 59	C+	2.30
50 – 54	C	2.00
45 – 49	C-	1.70
40 – 44	D+	1.30
30 – 39	D	1.00
00 – 29	E	0.00

(Source: UGC Circular No. 901)

(2) If the Grade Point Average (GPA) of a student is required for any purpose, it shall be calculated using the following equation –

$$GPA = \frac{\sum_{1}^{n} GPV_i C_i}{\sum_{1}^{n} C_i}$$

Where and are the Grade Point Value earned and credit values allocated respectively for the nth courses. Any calculated GPA shall be rounded to the second decimal place.

(3) Any student who has not appeared for the evaluation of a Course may be assigned a GPV of 0.00 Value for such Course for the purpose of calculating his/her GPA.

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PART IV – AWARD OF DEGREE

14. (1) The minimum conditions that a student shall satisfy for the award of the Degree of Master of Computing Technology are that he/she has obtained -

(a) not less than a GPV of 2.00 in the Courses which make up a minimum of 25 Credits; and
(b) not less than a Cumulative GPA of 2.00 for all the Courses which total up to 30 Credits; and
(c) not less than a C Grade (Pass) for the Independent Study.

(2) Subject to sub section (1) of this section and sub section (3) of section 12, a student who has qualified for the award of the Masters Degree by completing all the relevant requirements may be awarded "Distinction" if he/she has obtained a GPA of not less than 3.50 provided he/she had completed the Masters Degree Examinations within two consecutive academic years from the first date of registration.

(3) No student shall be entitled to the award of the Degree of Master of Computing Technology unless he/she has satisfied all the prescribed requirements and he/she has supplicated for the award of the Masters Degree at the relevant Convocation of the University of Colombo.

PART VII - INTERPRETATION

15. In these By-Laws, unless the context requires otherwise:

"The Act" means the Universities Act No. 16 of 1978 as amended subsequently;

"Academic Syndicate" means the Academic Syndicate established under the provisions of the University of Colombo School of Computing Ordinance, No. 01 of 2002 as amended subsequently;

"Board of Management" means the Board of Management of the School;

"Council" means the Council of the University of Colombo;

"Director" means the Director, Deputy Director or any other Officer authorized to sign for and on behalf of the Director of the University of Colombo School of Computing;

"Prescribed" means prescribed by the University/School as the case may be either by these By-Laws, or Regulations or Rules or by decisions made by these authorities;

"Registrar" means the Registrar, Acting Registrar, Deputy Registrar, Senior Assistant Registrar, Assistant Registrar or any other Officer authorized to sign for and on behalf of the Registrar of the University of Colombo School of Computing;

"School" means the University of Colombo School of Computing established by Order made under Section 24A read with Section 18 of the Act;

"Senate" means the Senate of the University of Colombo;

"University" means the University of Colombo.

16. Any question regarding the interpretation of these By-Laws shall be referred to the Council whose decision thereon shall be final.

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DEGREE OF MASTER OF COMPUTING TECHNOLOGY
UNIVERSITY OF COLOMBO, SRI LANKA

UNIVERSITY OF COLOMBO SCHOOL OF COMPUTING

REGULATIONS

of the

Degree of Master of Computing Technology

Regulations made by the Senate of the University of Colombo under Section 136 of the Universities Act No.16 of 1978 as subsequently amended and read with Section 13 of the University of Colombo School of Computing Ordinance No. 1 of 2002 as subsequently amended.

Regulations

1. (1) These Regulations may be cited as the Degree of Master of Computing Technology Regulations No 15 of 2024.

(2) These Regulations shall be deemed to have come into operation with effect from ....13.08.2024..... and shall be read in conjunction with the Degree of Master of Computing Technology By-Laws No. ...14.... of 2024.

PART I – ACADEMIC PROGRAMME

2. (1) There shall be assigned, to each Course offered in the Programme leading to the Degree of Master of Computing Technology, a Course Code, Title (Name), Level & Semester, Number of Credits [or Credit Value] and whether it is Compulsory or Optional Academic Course.

(2) The Schedule to these Regulations shall provide the details mentioned in sub-section (1) of this section.

3. (1) Each Credit Value shall correspond to different quantum of hours depending on the type of learning activities, the guidelines of which are as specified in Table I below:

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Table 1. Guidelines for Volume of Learning

Course Description	Credit Value	Direct Staff-Student Contact Hours	Notional Hours (direct staff-student contact hours and independent learning)
Lecture Course	1	15	50
Laboratory Course	1	30	50
Independent Studies	5	Variable	500

(2) The minimum number of Credits per Course is one.

(3) One Credit is considered equivalent to 50 Notional Learning Hours for a Lecture (Taught) Course and Laboratory (Practical) Course. In the case of Independent Study, a minimum of 100 Notional Hours is equivalent to one Credit.

4. The Senate shall, on the recommendation of the Academic Syndicate, have the power to make changes to the list of Courses, Course Codes, Course Titles (Name), Level & Semester, and Number of Credits (Credit Values) and whether Compulsory or Optional.

5. The detailed syllabus applicable to the Courses shall be prescribed by the School from time-to-time as approved by the Academic Syndicate.

PART II- ASSESSMENT & EXAMINATIONS

6. The procedure for continuous assessment, forms of evaluation in respect of each Course and the mode of their evaluation shall be decided by the relevant Board of Study and approved by the Academic Syndicate. The Academic Syndicate shall also have power, on the recommendation of the relevant Board of Study, to determine the structure and rubric of question papers on each Course when and where relevant.

7. Each Course including Independent Study shall be marked out of 100.

8. Each student may be required to submit assignments within a prescribed period as part of continuous assessments of such Courses.

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Independent Study

9. Every student of the Programme shall engage in Independent Study and submit a Report/Portfolio in the Second Semester of the Programme.

10. (1) A student engage in Independent Study shall undertake a set of problems and submit a Report based on the solution proposed to those problems. Such student shall, through his/her Report, demonstrate his/her knowledge of the methods of problem solving, his/her competence to present material systematically and his/her ability to analyse and interpret results/data, and translate theoretical knowledge into practical applications by designing, implementing and providing solutions to real world problems.

(2) There shall be undertaken a minimum of five (5) such Studies and maximum of eight (8) such Studies.

(3) Each such student shall submit a Report/Portfolio based on the solutions to the problems at the end of the Second Semester. An oral examination on this Report/Portfolio shall be a part of the process of assessment.

(4) By the end of the Second Semester, each such student shall complete his/her Report/Portfolio on Independent Study and submit it to the School within the specified period. However, it shall not be submitted unless the Course Coordinator has certified that the student has solved all the given problems. The student shall also ensure that the Report/Portfolio fits in to the prescribed format.

(5) A student shall be deemed to have passed the Oral Examination for the Independent Study if he/she satisfies the Board of Examiners of the criteria/requirements specified in Sub-Section (1) of this Section of these Regulations and other requirements prescribed by the relevant By-Laws and/or those prescribed by these Regulations.

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THE SCHEDULE

A. The Course Codes, Titles, Credits and their Standing in each Semester are as follows:

First Semester Courses

Code	Title	Credits	Standing [Compulsory / Optional]
MCT1101	Advanced Software Engineering	3	C
MCT1102	Advanced Programming Paradigms	3	C
MCT1103	Advanced Algorithms	3	C
MCT1104	Artificial Intelligence	3	C
MCT1105	Cloud Computing and Virtualization	3	C

Each student shall submit Assignments as part of Continuous Assessment set by the School.

Second Semester Courses

Code	Title	Credits	Standing [Compulsory / Optional]
MCT2101	Independent Studies in Computing Technology	5	C
MCT2102	Data Analytics and Scalability	3	C
MCT2103	Cybersecurity and Emerging Challenges	3	C
MCT2104	DevOps Engineering	2	O
MCT2105	Internet of Things (IoT), Edge, and Fog Computing Paradigms	2	O
MCT2106	Affective Computing	2	O
MCT2107	Digital Image Processing	2	O

Each student shall submit Assignments as part of Continuous Assessment set by the School.

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