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Appendix A: Categories for Breadth Requirement
1. MSC ADMISSION REQUIREMENTS

The requirements for admission to the MSc Program of the Department of Computer Science at the University of Victoria consist of:

| UVic Graduate Studies | • Must satisfy the admission requirements of the Faculty of Graduate Studies.  
|                       | • Minimum GPA is B. |
| Grades for the CSc Department | A minimum average of B+ is required for courses taken in the last two years of the previous BSc degree. |
| Previous Degrees | 1. Major or honours undergraduate degree in Computer Science/Computer Engineering/Software Engineering (or its equivalent);  
|                   | OR (2) a major or honors degree in Mathematics with an emphasis on Computer Science.  
|                   | Other degrees may be acceptable with some constraints (see below), especially for interdisciplinary research. International students should check also the web site for international degree conversions available from the Graduate Studies’ website:  
|                   | http://www.uvic.ca/graduatestudies/admissions/index.php |
| GRE | The GRE test is not required, but is highly recommended for international students. |
| Language | Applicants whose first language is not English should refer to the Language Proficiency requirement for the Faculty of Graduate Studies. |
| Mature Students | Mature applicants who do not meet the minimum GPA standard of B (see conversion table in the Appendix) may be allowed admission as a "Conditionally Admitted Mature Student" (C.A.M.S.) if they satisfy the following requirements:  
|                   | • at least 4 years have passed since the completion of a Bachelor's degree;  
|                   | • the applicant has at least 4 years of relevant professional experience;  
|                   | • a recommendation by the departmental Graduate Studies Committee based on support from a potential supervisor.  
|                   | Submission of a complete resume is required to determine eligibility as a mature student. The final recommendation must be approved by the Dean of Graduate Studies. |
| Exceptional Cases | A student who does not have a degree as stated above may be admitted to the program, but normally will be required to complete additional make-up courses. In doing so, the student must obtain a grade of at least B in each make-up course, and an average of B+ overall in the make-up courses.  
|                  | Evidence of ability to pursue graduate studies must also be provided. This evidence could be in the form of high grades, letters of recommendation or publications. Submission of a complete resume is required. |
| Decisions | Final decisions on admissions are made by potential supervisors. |

**NOTE:** A recommendation for admission by a faculty member who will serve as academic supervisor is required for applicants to gain entry into our graduate programs. Therefore, it is strongly recommended that applicants directly contact those CS faculty members who are in their anticipated research area. Areas of research can be found at: http://web.uvic.ca/calendar
1.1. Application for Admission

A complete application for admission to the MSc program in Computer Science consists of the following items:

- **Resume**: A brief and complete resume summarizing your activities and achievements (academic and professional) to date. List clearly the formal education you have received (similarly to the application form above) plus work experience.
- **Statement of Intent**: A one page description of your career goals and research interests. This should include a summary of any previous experience of research (honour thesis, graduation projects), plus a possible plan for future research. Be focused and precise, and highlight your strengths.
- **References**: At least two academic or professional references who are familiar with your work.
- **Documentation**: The documents required to start the evaluation of your application must be uploaded at the time of application. These include unofficial transcripts from all institutions you have attended (including UVic), a copy of your CV/Resume, Statement of Intent, TOEFL/IELTS score

**How to Submit Documents.** See: [http://web.uvic.ca/gradstudies/students/documents.php](http://web.uvic.ca/gradstudies/students/documents.php)

**Deadlines.** While applications may be submitted at any time and students may opt to commence in any of three terms, it should be noted that our programs are mostly geared toward those who start in September. The three terms start in September (Fall), January (Spring) and May (Summer). Note that, the major deadline to be considered for most of the University of Victoria Fellowships (one of the major scholarships) for all students is January 15 of each year, with preference for the September intake.

1.2. Special Cases

**Mature Students.** Mature applicants who do not meet the minimum requirements may be allowed admission as a "Conditionally Admitted Mature Student" (C.A.M.S.) if they satisfy the following requirements:

- at least 4 years have passed since the completion of a Bachelor’s degree;
- the applicant has at least 4 years of relevant professional experience;
- a recommendation by the departmental Graduate Studies Committee based on support from a potential supervisor.

Submission of a complete resume is required to determine eligibility as a mature student. The final recommendation must be approved by the Dean of Graduate Studies.
2. MSC COMMITTEES

The department maintains a Graduate Studies Committee composed of faculty members from the department, as well as one Graduate Student Representative. The responsibilities of this committee include such tasks as admission decisions, curriculum deliberations, administration of policies and procedures, and determinations of graduate awards. The Graduate Advisor is the Chair of this committee. The Graduate Advisor is the formal liaison officer between the department and the Faculty of Graduate Studies.

2.1. Student’s Supervisory Committee

The student’s program of study is under the direction of a Supervisory Committee, composed of a minimum of two members: An academic supervisor from the home academic unit plus at least one member who is normally from within the home academic unit. The chair of the committee is the academic supervisor who is from the department of Computer Science, under whose supervision the student is carrying out the major work of the MSc program. The other member of the Supervisory Committee is normally also from the Department of Computer Science, but can be from outside the department.

In the case of the project-based MSc or Industrial MSc, the Supervisory Committee consists of a minimum of two members: An academic supervisor from the home academic unit plus at least one member who is normally from within the home academic unit. The chair of the committee is the academic supervisor who is from the department of Computer Science, under whose supervision the student is carrying out the major work of the MSc program. The other member of the Supervisory Committee is normally also from the Department of Computer Science, but can be from outside the department.

2.2. Student’s Examining Committee

The final Oral Examining Committee in the case of a MSc program with a thesis shall consist of the Supervisory Committee and one other external examiner who has had no previous involvement with graduate supervision of the candidate. Such an examiner is recommended to graduate studies in consultation between the student and the supervisor. The final Oral Examining Committee must include at least one person from outside the department of Computer Science. Thus if the Supervisory Committee already includes a member from outside the department of Computer Science, the examiner can be a member of the department. A Chair of the Oral Examination Committee is appointed by the Faculty of Graduate Studies.

The final Oral Examining Committee in the case of a MSc program with a project shall consist of the Supervisory Committee plus a Chair who is normally a member of the department of Computer Science.
3. MSC PROGRAM REQUIREMENTS

Students admitted to the Master’s program are expected to write and defend successfully a thesis or a project, to fulfill the course requirements together with the breadth requirement, and to have yearly progress reports.

3.1. MSc Degree program – Thesis Option

The Master’s Program consists of a minimum of 15 units which include course work, a research skills’ course which was formerly called Graduate Seminar (CSC 595) and a Master’s thesis (CSC 599). All courses are valued at 1.5 units. At least 12 units of the program must be at the 500 level or higher. The remaining unit must be at the 400 level or higher.

A typical program includes:

- the research skills’ course (CSC 595) [1.5 units],
- 3 courses at the 500 level [4.5 units],
- 2 courses at the 400 or 500 level [3 units],
- the Master’s thesis (CSC 599) [6 units].

Each student must satisfy the MSc Breadth Requirements, defined as follows:

- No more than 3 courses in the MSc program should be in the same category of the thesis topic.
- Variations are acceptable if documented and approved by the supervisory committee.
- The Supervisory Committee is responsible for checking that the breadth requirement is satisfied correctly according to the expectations and to any variations. Explicit notes must be included about the breadth requirement at every progress report.
- The categories are the same as stated for the PhD Breadth Requirements (see Appendix B).

3.1.1. MSc Thesis and Oral Examination

The Faculty of Graduate Studies states the following guidelines regarding an acceptable thesis for a successful MSc program.¹

A master’s thesis is an original lengthy essay which demonstrates a student’s understanding of, and capacity to, employ research methods appropriate to their discipline(s). It should normally include a general overview of relevant literature in the field of study, be well organized and academically written. The work may be based on body of original data produced by the student or it may be an original research exercise conducted using scholarly literature or data produced and made available by others.

¹ See the subsection entitled “Master’s Theses” in the section entitled “Program Requirements – Master’s Degrees” of the UVic Graduate Calendar online: http://web.uvic.ca/calendar
In general, a master's candidate must demonstrate a command of the subject of the thesis. A thesis demonstrates that appropriate research methods have been used and appropriate methods of critical analysis supplied. It provides evidence of some new contribution to the field of existing knowledge or a new perspective on existing knowledge.

The student will give an oral examination of the thesis in accordance with the departmental and university regulations. Upon successful completion of the oral examination and all other departmental and university requirements, the student will be awarded the degree of Master of Science.

### 3.1.2. Program Length

The normal expectation is to complete the program in 5 terms (20 months). Students enrolled in a co-operative education program will have additional months added to the normal completion times equal to the time spent on co-op work terms. In all cases, the department expects students to complete their Master's degree within the maximum time limits set by the Faculty of Graduate Studies.

<table>
<thead>
<tr>
<th>Possible MSc Plan of Study (with Thesis)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Term 1</strong></td>
</tr>
<tr>
<td>2 courses + CSC 595</td>
</tr>
<tr>
<td>Initial background research</td>
</tr>
<tr>
<td>TA work (max 12 hours/week)</td>
</tr>
<tr>
<td>OR</td>
</tr>
<tr>
<td>3 courses</td>
</tr>
<tr>
<td>Initial background research</td>
</tr>
<tr>
<td>TA work (max 12 hours/week)</td>
</tr>
<tr>
<td><strong>Term 2</strong></td>
</tr>
<tr>
<td>3 courses</td>
</tr>
<tr>
<td>Initial background research</td>
</tr>
<tr>
<td>TA work (max 12 hours/week)</td>
</tr>
<tr>
<td>OR</td>
</tr>
<tr>
<td>2 courses + CSC 595</td>
</tr>
<tr>
<td>Initial background research</td>
</tr>
<tr>
<td>TA work (max 12 hours/week)</td>
</tr>
<tr>
<td><strong>Term 3</strong></td>
</tr>
<tr>
<td>Research on thesis and write plus TA work (max 12 hours/week)</td>
</tr>
<tr>
<td><strong>Term 4</strong></td>
</tr>
<tr>
<td>Research on thesis and write plus TA work (max 12 hours/week)</td>
</tr>
<tr>
<td><strong>Term 5</strong></td>
</tr>
<tr>
<td>Finish up plus TA work (max 12 hours/week)</td>
</tr>
</tbody>
</table>

### 3.2. MSc Degree program – Project Option

Students may register for a Master's project (CSC 598) instead of a thesis, valued at 3 units. The Master's Program still consists of a minimum of 15 units which include course work, a research skills’ course (CSC 595) and the Master's project (CSC 598). All courses are valued at 1.5 units. At least 12 units of the program must be at the 500 level or higher. The remaining units must be at the 400 level or higher.

A typical program would include:

- the research skills’ course (CSC 595) [1.5 units],
- 5 courses at the 500 level [7.5 units],
- 2 courses at the 400 or 500 level [3 units],
- the Master's thesis (CSC 598) [3 units].
Each student must satisfy the MSc Breadth Requirements, defined as follows:

- No more than 3 courses in the MSc program should be in the same category of the thesis topic.
- Variations are acceptable if documented and approved by the supervisory committee.
- The Supervisory Committee is responsible for checking that the breadth requirement is satisfied correctly according to the expectations and to any variations. Explicit notes must be included about the breadth requirement at every progress report.
- The categories are the same as stated for the PhD Breadth Requirements (see Appendix A).

3.2.1. MSc Project and Oral Examination

An MSc project is smaller than a thesis both in scope and implementation. The following points remain in common with the expectations for a thesis, albeit on a smaller scale.

- The project must demonstrate that a student understands and is capable to employ research methods and has command of the subject.
- The amount of work required to complete the project should be equivalent to two, 1.5 unit courses.
- The project should show evidence of perspective on the topic and show that appropriate methodology has been understood and applied.
- The project report should show that the student is capable of writing a professional technical document.

3.2.2. Program Length

The normal expectation is to complete the program in 5 terms (20 months). Students enrolled in a co-operative education program will have additional months added to the normal completion times equal to the time spent on co-op work terms. In all cases, the department expects students to complete their Master’s degree within the maximum time limits set by the Faculty of Graduate Studies.

<table>
<thead>
<tr>
<th>Possible MSc Plan of Study (with Project)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Term 1</strong></td>
</tr>
<tr>
<td>2 courses + <strong>CSC 595</strong></td>
</tr>
<tr>
<td>Initial background research</td>
</tr>
<tr>
<td>TA work (max 12 hours/week)</td>
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<tr>
<td>OR</td>
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<tr>
<td>3 courses</td>
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<tr>
<td>Initial background research</td>
</tr>
<tr>
<td>TA work (max 12 hours/week)</td>
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<tr>
<td></td>
</tr>
</tbody>
</table>
3.3. MSc Degree program – Industrial Option

Students may register for an Industrial Master's project (CSC 597) instead of a thesis, valued at 1.5 units. The Master's Program still consists of a minimum of 15 units which include course work, a research skills' course (CSC 595) and the Industrial Master's project (CSC 597). All courses are valued at 1.5 units. At least 12 units of the program must be at the 500 level or higher. The remaining units must be at the 400 level or higher.

A typical program would include:

- the research skills’ course (CSC 595) [1.5 units],
- 6 courses at the 500 level [9 units],
- 2 courses at the 400 or 500 level [3 units],
- the Master’s project (CSC 597) [1.5 units].

Each student must satisfy the MSc Breadth Requirements, defined as follows:

- No more than 3 courses in the MSc program should be in the same category of the thesis topic.
- Variations are acceptable if documented and approved by the supervisory committee.
- The Supervisory Committee is responsible for checking that the breadth requirement is satisfied correctly according to the expectations and to any variations. Explicit notes must be included about the breadth requirement at every progress report.
- The categories are the same as stated for the PhD Breadth Requirements (see Appendix B).

3.3.1. Industrial MSc Project and Oral Examination

An Industrial MSc project is smaller than a thesis or an MSc project both in scope and implementation. The following points remain in common with the expectations for a thesis, albeit on a smaller scale.

- The project must demonstrate that a student understands and is capable to employ research methods and has command of the subject.
- The amount of work required to complete the project should be equivalent to one, 1.5 unit course.
- The project should show evidence of perspective on the topic and show that appropriate methodology has been understood and applied.
- The project report should show that the student is capable of writing a professional technical document.

3.3.2. Program Length

The normal expectation is to complete the program in 5 terms (20 months). Students enrolled in a co-operative education program will have additional months added to the normal completion times equal to the time spent on co-op work terms. In all cases, the department expects students to complete their Master's degree within the maximum time limits set by the Faculty of Graduate Studies.
### Possible MSc Plan of Study (with Project)

| Term 1            | 2 courses + CSC 595  
|                  | TA work (max 12 hours/week) |
| Term 2           | 2 courses (and CSC 595 if not registered in Term 1)  
|                  | TA work (max 12 hours/week) |
| Term 3           | 2 courses  
|                  | TA work (max 12 hours/week) |
| Term 4           | 2 courses |
| Term 5           | Capstone project course |

### 3.4 MSc Progress Reports

The academic supervisor is responsible for providing regular reports to evaluate progress in the graduate program. The progress report is a requirement of the Faculty of Graduate Studies and cannot be waived by any department. However, its administration is determined by individual departments.

The purpose of the annual report is to support the successful progress of a student through a graduate program. The review of accomplishments and milestones achieved during a 12-month review period is a constructive tool to move forward successfully. Achievements need to be acknowledged and rewarded. Possible impediments need to be examined and actions for their removal agreed upon. The progress report must be compiled and submitted at least once in every 12 month period of a graduate program. The expected submission date is August 1 of each year. Failure to submit a progress report may result in students being unable to register for the following term and will be reported to the department’s Chair by the Graduate Advisor.

The expected procedures for the submission of the annual report are as follows:

1. Students should supply the information required to complete a report well in advance of the submission deadline. This information includes: name and student number, courses, TA work, financial support, co-op work-terms, etc.
2. Supervisors should present the information, together with their evaluation, to the other members of the Supervisory Committee and collect any pertinent feedback.
3. Supervisors should summarize the complete evaluation from the committee in writing.
4. Students and supervisors should meet and discuss the evaluation.
5. Any actions expected for the continuing time in the program should be articulated in writing and agreed upon.
6. Students have the opportunity to attach their own comments in writing.
7. Both students and supervisors must sign the final document.
NOTE 1: The signature of the supervisor acknowledges that the supervisory committee has been consulted and the report has been discussed with the student.
NOTE 2: The signature of the student acknowledges that the report has been discussed with the supervisor and an opportunity given to include comments.

A template form is available from the department as a guide and can be found as a posting on the Web pages http://www.csc.uvic.ca/index.htm. It is not necessary to use it, but it may be helpful. Any other format is acceptable as long as it includes the crucial elements, namely: the total work accomplished, the evaluation of the work by both the supervisor and by the supervisory committee, the comments by the students, any expectations for the future, and the relevant signatures and dates.

4. THE RELATIONSHIP BETWEEN STUDENTS AND THE SUPERVISORY COMMITTEE

In-depth explanations and detailed guidelines for the joint responsibilities towards a successful PhD program can be found in the document entitled “Responsibilities in the Supervisory Relationship Policy” from the Faculty of Graduate Studies website. It is important and expected that both students and members of the Supervisory Committee are knowledgeable and familiar with the document.

**Important Websites:**

Department of Computer Science (Graduate Program): http://www.csc.uvic.ca/
Faculty of Graduate Studies: http://www.uvic.ca/graduatestudies/
Graduate Academic Calendar: http://web.uvic.ca/calendar
Appendix A: Categories for Breadth Requirement

In order to define the breadth requirements, three major categories are identified within Computer Science. Each category is subdivided into areas that represent a range of the fields of computer science, as given in the table below.

<table>
<thead>
<tr>
<th>CATEGORIES</th>
<th>Systems</th>
<th>Theory</th>
<th>Applications</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Software Engineering</td>
<td>Design and Analysis of Algorithms</td>
<td>Databases</td>
</tr>
<tr>
<td>R</td>
<td>Programming Languages</td>
<td>Scientific Computing</td>
<td>Artificial Intelligence</td>
</tr>
<tr>
<td>E</td>
<td>Hardware and Software Systems</td>
<td>Complexity Theory</td>
<td>Bioinformatics</td>
</tr>
<tr>
<td>A</td>
<td>Networks and Distributed</td>
<td>Logic and Discrete Mathematics</td>
<td>Graphics and User Interfaces</td>
</tr>
<tr>
<td>S</td>
<td>Systems Other areas</td>
<td>Other areas</td>
<td>Other areas</td>
</tr>
</tbody>
</table>

Areas not listed explicitly can still be perfectly acceptable. However, it is up to the student to justify in which category they should be classified and their academic value to the doctoral program. As an example, the area of “Databases” might fit entirely within the “Applications” category, or it may be considered as an area in either the “Theory” or “Systems” category, depending on the academic content being evaluated.