[Link to www.uvic.ca](http://www.uvic.ca/)

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| **CSC 106: The Practice of Computer Science** | |
| **Term** | Fall 2012 |
| **Course Website** | <http://www.csc.uvic.ca/courses/csc106> |
| **Instructor** | Gautam Srivastava  Email: gsrivast at uvic.ca  Office: ECS 516  Phone Number: 250-472-5752  Office Hours: M 10:30 - 12:00 p.m., and W 10:30 - 11:30a.m. |
| **Lecture Schedule** | (A01) MR 1:00 - 2:20 p.m. ECS 125 |
| **Laboratory Schedule** | Lab tutorials begin the week of ***September 10, 2012***. Please attend the lab you have registered for. Lab times and locations are available from the [timetable.](http://www.uvic.ca/webtt) To access, you may need to sign in with your Netlink ID. |
| **Course Overview** | A general introduction to the field of computer science, its basic areas and its connections to interdisciplinary topics. |
| **Topics** | The list of topics may include some of the following:   * Algorithms * What is and what is not computable? * Graphs * Programming and Problem Solving Concepts * Programming Basics * Programming Languages * Human Computer Interaction * Databases * Networks * Hardware * Security * Social Computing * Applications in Music and Arts * Artificial Intelligence * Data Mining * Health Informatics * Bioinformatics * Computers in Society * Information Visualization * Geomatics * Software Engineering |
| **Course Objectives And Learning Outcomes** | A student who successfully completed the course can/is able to:   * describe what computer science is and what jobs computer scientists typically do * understand the interdisciplinary role of computer science * explain what an algorithm is * has some knowledge of the limitations of computing * interpret a basic description of a problem in an application and formulate it as an computational problem description * explain some basic algorithmic and problem solving concepts * understands the basic concept of a graph * be able to use basic computer tools * be able to write a short program in a supported programming environment, implementing an algorithm * has a basic understanding of the role of computer science in areas such as Bioinformatics and CS & Music * can describe basic areas of computer science |
| **Textbooks** | There is no textbook required for this course but students are required to purchase an iClicker (available at the UVic bookstore). Course materials will be posted in class.  The iClicker can be new or old and 1st or 2nd generation. It must be registered at UVic. Instructions on how to do this can be found at <http://elearning.uvic.ca/iclicker/students> |
| **In-class Computer Policy** | The use of laptop computers and other mobile devices will be allowed in this course, but only after signed agreement as to what constitutes appropriate in-class use has been given. Appropriate in-class use will be discussed in the first lecture. |
| **Assignments** | In this course there will be **5** assignments. Each assignment is worth **5**% for a total of **25**%. Typically, you will have just under 2 weeks to solve an assignment. You may be required to work in pairs or groups of students for some assignments, unless instructed otherwise, you should work alone. |
| **In-class / In-lab Activities** | In this course there will be a number of in-class or in-lab activities. These activities may take the form of clicker questions, pop-quizzes, and/or written mini-assignments for a total of **10**%. Dates for these will not be announced in advance. As students are expected to attend all lectures and labs no make up activities, quizzes, or mini-assignments will be given. Students that miss one of these activities because of illness or grave family circumstances should see the professor with supporting documentation (e.g. a doctor's note) as soon as possible.   **3%** of the 10% will be given over to participation around iClicker questions. The use of the iClickers is to facilitate in-class participation, therefore, marks will be assigned based on participation, and not based strictly on getting the correct answer on the first click.   * A full 3% will be awarded for valid attempts on 85% or more of the iClicker questions asked over the entire course. * 2% will be awarded for valid attempts on 75 to 84% of the iClicker questions asked. * 1% will be awarded for valid attempts on 50 - 74% of the iClicker questions asked. * 0% will awarded for attempting less than 50% of the iClicker questions.   **7%** of the 10% will be given over to in-class and in-lab pop-quizzes and/or mini-assignments. |
| **Lecture Questions And Reflections** | This class features a number of guest speakers who will discuss current issues in computer science. All of them will integrate their own research interests and expertise into the broad themes we will be examining. In order to help everyone in the class get the most out of this information, groups of students will be required to create and answer (correctly) 3 questions based on the lectures given by the guest speakers.  **5% for developing lecture-based questions.**  Each group of students will be required to create questions and answers based on at least one guest lecture. The questions and answers will be worth **5%.** All group members must be present at the lecture they are creating questions for. Any group member not in attendance will not be able to share in the group grade. The schedule matching groups to lectures will be discussed in the first class.  **Lecture reflections** - no assigned marks, but used in determining final letter grade standing if between one letter grade and another.  At the end of every guest lecture everyone in the class will do a short in-class reflection noting the key point that she or he understood from the lecture, noting the main problematic/challenging point, and giving some rational for both. Groups creating questions should draw on what others in the class found challenging and, where possible, create at least one of their questions to address these problem areas. |
| **Exams** | There will be one midterm exam and a final exam in this course, worth **20%** and **40%** respectively. Tentative date for the midterm is: **Monday, October 29, 2012**. The final exam is scheduled by the university and you must ensure that you do not book travel during this time period (until after the final has been scheduled and confirmed). |
| **Term Schedule** | The following shows the tentative dates for the assignments, midterm and final exam This schedule is subject to change.  .   |  |  | | --- | --- | | **Assignment/Exam** | **Date** | | Assignment 1 | Sept 21 | | Assignment 2 | Oct 5 | | Assignment 3 | Oct 19 | | Midterm Exam | Oct 29 | | Assignment 4 | Nov 9 | | Assignment 5 | Nov 30 | | Final Exam | To be arranged by the university. | |
| **Grading** | |  |  | | --- | --- | | **Coursework** | **Weight (out of 100%)** | | Assignments | 25% | | In-class and in-lab activities | 10% | | Lecture Questions | 5% | | Midterm Exam | 20% | | Final Exam | 40% |  |  |  | | --- | --- | | **Grades** | **Description** | | **A+, A, A-** | **Exceptional**, **outstanding** or **excellent** performance. These grades indicate a student who is *self-initiating*, *exceeds expectation* and has an *insightful* grasp of the subject matter. | | **B+, B, B-** | **Very good**, **good** or **solid** performance. These grades indicate a *good* grasp of the subject matter or *excellent grasp in one area balanced with satisfactory grasp in the other areas*. | | **C+, C** | **Satisfactory**, or **minimally satisfactory**. These grades indicate a *satisfactory performance and knowledge* of the subject matter. | | **D** | **Marginal Performance**. A student receiving this grade demonstrated a *superficial grasp* of the subject matter. | | **F** | **Unsatisfactory performance**. Wrote final examination and completed course requirements; no supplemental. |   Final Grades are obtained by converting the numerical scores using the conversion table below.   |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | F | D | C | C+ | B- | B | B+ | A- | A | A+ | | 0-49 | 50-59 | 60-64 | 65-69 | 70-72 | 73-76 | 77-79 | 80-84 | 85-89 | 90-100 | |
| **Posting Of Grades** | Term marks, provisional final grades and final grades will be posted by student number. NO NAME WILL APPEAR. These postings are for your information and for your validation of the data entry. If you do not wish your term marks and grades to be publicly posted in this manner, please notify the course instructor by e-mail no later than **September 20th, 2012**. |
| **Csc Student Groups** | [The Computer Science Course Union (http://cscu.csc.uvic.ca/mediawiki/index.php/)](http://cscu.csc.uvic.ca/mediawiki/index.php/) serves all students who are either in a computer science program or taking a class in computer science. Please sign yourself up on their [mailing list](http://mailman.csc.uvic.ca/mailman/listinfo/cscu) if you would like to be informed about their social events and services.   The Engineering Students' Society (ESS) serves all students registered in an Engineering degree program, including Software Engineering (BSEng). For information on ESS activities, events and services navigate to <http://www.engr.uvic.ca/~ess> . |
| **Course Policies And Guidelines** | ***Late Assignments:*** No late assignments will be accepted unless prior arrangements have been made with the instructor **at least 48 hours before** the assignment due date.  ***Coursework Mark Appeals:*** All marks must be appealed **within 7 days** of the mark being posted in writing.  ***Attendance:*** We expect students attend all lectures and labs. It is entirely the students' responsibility to recover any information or announcements presented in lectures from which they were absent.  ***Electronic devices in labs and lectures:*** No unauthorized *audio* or *video* recording of lectures is permitted.  ***Electronic devices in midterms and exams:***Calculators are only permitted for examinations and tests if explicitly authorized and the type of calculator permitted may be restricted. No other electronic devices (e.g. cell phones, pagers, PDA, etc.) may be used during examinations or tests *unless explicitly authorized*.  ***Inclusive on-line environment:***We all share the on-line course environment provided by the Department of Computer Science and as such we must all work within some civil discourse guidelines. Swearing, rude language, and bullying behaviour will not be tolerated in the on-line environment provided for this course. Access to the Connex space will be revoked and a grade penalty could be imposed on anyone acting in such a manner.  ***Plagiarism:*** Submitted work may be checked using plagiarism detection software. Cheating, plagiarism and other forms of academic fraud are taken very seriously by both the University and the Department. You should consult<http://web.uvic.ca/calendar/FACS/UnIn/UARe/PoAcI.html> for the UVic policy on academic integrity. Note that the university policy includes the statement that "A largely or fully plagiarized assignment should result in a grade of F for the course".   The Faculty of Engineering Standards for Professional Behaviour are at[http://www.uvic.ca/shared/shared%5fengineering/docs/professional-behaviour.pdf](http://www.uvic.ca/shared/shared_engineering/docs/professional-behaviour.pdf)   The department guidelines concerning fraud are at <http://www.csc.uvic.ca/courseinfo/policies/fraud.html>   ***Department Policies:*** A list of department policies regarding all courses may be found at<http://www.csc.uvic.ca/courseinfo/policies/index.html> |
| This course aims to provide equal opportunities and access for all students to enjoy the benefits and privileges of the class and its curriculum and to meet the syllabus requirements. Reasonable and appropriate accommodation will be made available to students with documented disabilities (physical, mental, learning) in order to give them the opportunity to successfully meet the essential requirements of the course. The accommodation will not alter academic standards or learning outcomes, although the student may be allowed to demonstrate knowledge and skills in a different way. It is not necessary for you to reveal your disability and/or confidential medical information to the course instructor. If you believe that you may require accommodation, the course instructor can provide you with information about confidential resources on campus that can assist you in arranging for appropriate accommodation. Alternatively, you may want to contact the Resource Centre for Students with a Disability located in the Campus Services Building.  The University of Victoria is committed to promoting, providing, and protecting a positive, and supportive and safe learning and working environment for all its members. | |