

CSI-2101      Summer 2020  
Discrete Structures  
(3,0,0) 3 cr.

**Course Description:** Discrete structures as they apply to computer science, algorithm analysis and design. Predicate logic. Review of proof techniques; application of induction to computing problems. Graph theory applications in information technology. Program correctness, preconditions, postconditions and invariants. Analysis of recursive programs using recurrence relations. Properties of integers and basic cryptographical applications.

**Prerequisites:** MAT 1348.

**Course Web Page:** <http://cglab.ca/~jdecарuf/CSI2101.html>

**Time & Location:** This is an asynchronous online course.

**Professor:**

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**Teaching Assistants:**

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**Textbook:**

Suggested reading.

- Kenneth Rosen. Discrete Mathematics and Its Applications, 7th Edition. McGraw Hill, 2012.

### Course Evaluation:

Cheating will not be tolerated. For a full description of the current academic fraud regulations, please follow: <https://www.uottawa.ca/administration-and-governance/academic-regulation>

No mini-test or exam marks will be reviewed more than 10 working days from the time it is marked. It is your responsibility to check the web site frequently and make sure that your marks are correctly recorded.

Mini-Tests: There will be four mini-tests during the semester. These mini-tests will take place on BrightSpace. Make sure you are equipped to quickly scan, or take a picture of, 2 ~ 3 pages and create a pdf. You will have to answer each mini-test on a piece of paper and upload your answers to BrightSpace. No mini-tests will be accepted by email.

- Mini-Test 1: May 21, 2020 from 11h30 to 12h00 (on BrightSpace)
- Mini-Test 2: May 28, 2020 from 11h30 to 12h00 (on BrightSpace)
- Mini-Test 3: June 25, 2020 from 11h30 to 12h00 (on BrightSpace)
- Mini-Test 4: July 16, 2020 from 11h30 to 12h00 (on BrightSpace)

Exams: There will be two exams during the semester. These exams will take place on BrightSpace. Make sure you are equipped to quickly scan, or take a picture of, 5 ~ 6 pages and create a pdf. You will have to answer each exam on a piece of paper and upload your answers to BrightSpace. No exam will be accepted by email.

- Exam 1: June 4, 2020 from 11h30 to 12h50 (on BrightSpace)
- Exam 2: July 2, 2020 from 11h30 to 12h50 (on BrightSpace)

There will be a 3 hour final exam. This exam will take place on BrightSpace. Make sure you are equipped to quickly scan, or take a picture of, 9 ~ 10 pages and create a pdf. You will have to answer the final exam on a piece of paper and upload your answers to BrightSpace. No exam will be accepted by email.

### Marking Scheme:

Mini-Test 1:	3.75%
Mini-Test 2:	3.75%
Mini-Test 3:	3.75%
Mini-Test 4:	3.75%
Exam 1:	17.5%
Exam 2:	17.5%
Final exam:	50%
Total:	100%