

Course Outline for Math 2151A FW2020

Course Information

Math 2151A, Discrete Math for Engineers, FW 2020

This course is offered only to software engineering students enrolled in the Faculty of Engineering.

Prerequisites:

Computer Science 1026A/B or ES 1036A/B.

Corequisites:

Computer Science 1027A/B or Computer Science 1037A/B.

Antirequisites:

Mathematics 2155F/G, the former Mathematics 2155A/B, the former Software Engineering 2251A/B.

Unless you have either the requisites for this course or written special permission from your Dean to enroll in it, you may be removed from this course and it will be deleted from your record. This decision may not be appealed. You will receive no adjustment to your fees in the event that you are dropped from a course for failing to have the necessary prerequisites.

Textbook information

We'll be using the Discrete Math textbook available on [zybooks](#). You can access the website through the tools menu on OWL.

1. Sign in or create an account on zybooks using your @uwo.ca email.
2. Enter zyBook code: UWOMath2151ANakadeFall2020
3. Subscribe.

A subscription is USD 58. Subscriptions will last until Jan 01, 2021. **Every student must own an individual subscription of the textbook** as there will be assignments on zybooks that will count toward your final grade.

Course Website

We will be using several websites throughout this course. All of these websites will be posted on the course website on OWL (<http://owl.uwo.ca/>).

The primary website for this course is Piazza: <https://piazza.com/uwo.ca/fall2020/math2151a/>. Students should check Piazza on a regular basis for news and updates. This is the primary method by which information and course materials will be disseminated to all students in the class.

Topics

Here is a brief outline of the topics covered in this course:

- Logic (2 weeks)
- Proofs (1 week)
- Sets (1 week)
- Relations and functions (1.5 weeks)
- Mathematical Induction (1.5 weeks)
- Modular arithmetic (1.5 weeks)
- Counting (2.5 weeks)
- Introductory graph theory (1.5 weeks)

Note that this outline is tentative and is likely to change as the semester progresses. Learning objectives for each chapter will be provided separately throughout the course.

Delivery Mode

The mode of delivery for this course will be entirely asynchronous. The instructor will make videos and upload them on the course website. You'll be expected to watch the videos, read the corresponding chapter, and do the reading assignments.

Instructor Information

Name:

Apurva Nakade (he/him)

Email:

anakade@uwo.ca

The preferred method of contacting the instructor is through Piazza. Create a note on the [Piazza course website](#) and in the "Post to" field select "Instructors". If you do need to send an email to the instructor, please use your UWO email address when sending an email.

Office hours:

Information about the office hours will be posted on the course website once the course starts based on student preferences.

Methods of Evaluation

The overall course grade will be calculated as listed below:

Bi-weekly participation activities on zyBook	5%
Weekly challenge activities on zyBook	5%
Written homework assignments (x 2)	10% each
Midterm exams (x 2)	20% each
Final exam	30%

Exams:

The dates for the two midterms and the final are still being decided by the registrar and will be posted on the course website as soon as they become available. The two midterms will probably be in mid-October and mid-November and the final will be during the final examination period.

Excused absences:

If a student has permission to miss a midterm, **no makeup exam** will be given. Instead, this component will be reweighted to the other midterm and the final exam. **To be eligible to pass this course, you must take at least one midterm exam and the final exam.**

Homeworks:

There will be three types of homework for this course:

Bi-weekly zyBook participation activities:

A participation activity on zyBook is an activity used in the initial learning of a topic. Anyone can get all PA points just by participating (hence the name).

Weekly zyBook challenge activities:

A challenge activity is the zyBook version of a homework problem. A CA allows students to apply and practice what they've learned. Students must eventually get a CA right on their own to get points.

Written homework assignments

There will be two essay type homework assignments in this course to test proof writing.

Homework deadlines will be posted well in advance on the course website. There will be **no deadline extensions** for zyBook activities or written homework assignments.

To allow for some flexibility with zyBook activities, grades for these components will be curved up by 5% (each) at the end of the semester. For example, if you successfully complete 90% of all zyBook participation activities then your grade for this component will get curved up to 95%. If you successfully complete $\geq 95\%$ activities then your grade for this component will get curved up to 100%.

Scholastic offenses are taken seriously and students are directed to read the appropriate policy, specifically, the definition of what constitutes a Scholastic Offence, at the following Web site:

http://www.uwo.ca/univsec/pdf/academic_policies/appeals/scholastic_discipline_undergrad.pdf.

Copying solutions from other students, online sources, textbooks, etc., or showing your work to other students constitutes a scholastic offense and will result in a grade of negative 100% for the component and in some cases expulsion from the program. All academic offenses are added to your student record.

Remote Proctoring

Tests and examinations in this course will be conducted using a remote proctoring service, such as Proctortrack. Proctortrack will require you to provide personal information (including some biometric data). The session will be recorded. **By taking this course, you are consenting to the use of this software.**

More information about remote proctoring is available in the Online Proctoring Guidelines at the following link: <https://www.uwo.ca/univsec/pdf/onlineproctorguidelines.pdf>

Completion of this course will require you to have a reliable internet connection and a device that meets the system and technical requirements for both Zoom and Proctortrack. Information about the system and technical requirements are available at the following links:

<https://www.proctortrack.com/tech-requirements/>

<https://support.zoom.us/hc/en-us>

Accommodated Evaluations

Students with disabilities work with Accessible Education (formerly SSD) which provides recommendations for accommodation based on medical documentation or psychological and cognitive testing. The Academic Accommodation for Students with Disabilities policy can be found at: https://www.uwo.ca/univsec/pdf/academic_policies/appeals/Academic_Accommodation_disabilities.pdf

Academic Consideration for Student Absence

Students will have up to two (2) opportunities during the regular academic year to use an on-line portal to self-report an absence during the semester, provided the following conditions are met: the absence is no more than 48 hours in duration, and the assessment for which consideration is being sought is worth 30% or less of the student's final grade. Students are expected to contact their instructors within 24 hours of the end of the period of the self-reported absence, unless noted on the syllabus. Students are not able to use the self-reporting option in the following circumstances:

- for exams scheduled by the Office of the Registrar (e.g., December and April exams)
- absence of a duration greater than 48 hours,
- assessments worth more than 30% of the student's final grade,
- if a student has already used the self-reporting portal twice during the academic year

If the conditions for a Self-Reported Absence are *not* met, students will need to provide a Student Medical Certificate if the absence is medical, or provide appropriate documentation if there are compassionate grounds for the absence in question. Students are encouraged to contact their Faculty academic counselling office to obtain more information about the relevant documentation.

Students should also note that individual instructors are not permitted to receive documentation directly from a student, whether in support of an application for consideration on medical grounds, or for other reasons. **All documentation required for absences that are not covered by the Self-Reported Absence Policy must be submitted to the Academic Counselling office of a student's Home Faculty.**

For policy on Academic Consideration for Student Absences - Undergraduate Students in First Entry Programs, see:

https://www.uwo.ca/univsec/pdf/academic_policies/appeals/Academic_Consideration_for_absences.pdf

and for the Student Medical Certificate (SMC), see:

http://www.uwo.ca/univsec/pdf/academic_policies/appeals/medicalform.pdf

Religious Accommodation

Students should consult the University's list of recognized religious holidays, and should give reasonable notice in writing, prior to the holiday, to the Instructor and an Academic Counsellor if their course requirements will be affected by a religious observance. Additional information is given in the Western Multicultural Calendar:

<https://multiculturalcalendar.com/ecal/index.php?s=c-univwo>

You may also be eligible to write the Special Exam if you are in a "Multiple Exam Situation" (see http://www.registrar.uwo.ca/examinations/exam_schedule.html).

If a student fails to write a scheduled Special Examination, the date of the next Special Examination (if granted) normally will be the scheduled date for the final exam the next time this course is offered. The maximum course load for that term will be reduced by the credit of the course(s) for which the final examination has been deferred. See Academic Calendar for details (under [Special Examinations](#)).

Support Services

Please visit the Science & Basic Medical Sciences Academic Counselling webpage for information on add/drop courses, academic considerations for absences, appeals, exam conflicts, and many other academic related matters: <https://www.uwo.ca/sci/counselling/>

Western University is committed to a thriving campus as we deliver our courses in the mixed model of both virtual and face-to-face formats. We encourage you to check out the Digital Student Experience website to manage your academics and well-being: <https://www.uwo.ca/se/digital/>.

Learning-skills counsellors at the Student Development Centre (<http://www.sdc.uwo.ca>) are ready to help you improve your learning skills. They offer presentations on strategies for improving time management, multiple-choice exam preparation/writing, textbook reading, and more. Individual support is offered throughout the Fall/Winter terms in the drop-in Learning Help Centre, and year-round through individual counselling.

Students who are in emotional/mental distress should refer to Mental Health@Western (http://www.health.uwo.ca/mental_health) for a complete list of options about how to obtain help.

Additional student-run support services are offered by the USC, <http://westernusc.ca/services>.

Key Sessional Dates

Sept. 9	Classes begin
Sept. 17	Last day to add a full course or first-term half course
Oct. 12	Thanksgiving
Nov. 2-8	Fall Reading Week
Nov. 9	Date by which students in a first-term half course must receive assessment for work totaling 15% of their final grade
Nov. 12	Last day to withdraw from a first-term half course without academic penalty
Nov. 27	Date by which students in a full course must receive assessment for work totaling 15% of their final grade
Nov. 30	Last day to withdraw from a full course without academic penalty
Dec. 9	Last day of classes in Fall Term
Dec. 10	Study Days
Dec. 11-22	December examination period

See <https://www.westerncalendar.uwo.ca/SessionalDates.cfm> for a complete list of sessional dates.