

# CSC 1300 - Discrete Structures - Syllabus

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**Course:** CSC 1300 - Discrete Structures  
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## Office hours:

- **Dr. Gruppi**
  - Mon 3pm-5pm, [via Zoom](#)
  - Tue/Thu 4:15pm-5:15pm, Mendel Hall 292A
- **Beka Rukhaia (TA)**
  - Thu/Fri: 1pm-3pm [via Zoom](#)

\* Office hours subject to change. Updates will be posted.

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## 🕒 Meeting times and locations

**Section 003:** Tue/Thu 2:30-3:45 PM, Mendel Hall 115

**Section 100:** Mon 6:15-8:55 PM, Mendel Hall 290

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## Main references

- The textbook for this course is available for free in digital format and available for purchase in print [Discrete Mathematics: An Open Introduction, 3rd edition, Oscar Levin](#).
  - Alternative textbook: **Discrete Mathematics and Its Applications, 7th edition, Kenneth H. Rosen, McGraw-Hill Education**.
  - Lecture notes and assignments will be available on the course Blackboard page.
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## Course structure

- Classes will take place in person at the designated time and location.
  - Evaluation will be based on homework assignments, exams, quizzes and participation. Details in [Grading policy](#).
  - Office hours will be held to provide additional guidance to students. See [office hours schedule](#) for details.
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## Course objectives

The objective of this course is to equip the students with the fundamental mathematical knowledge required to develop meaningful computing applications, such as logic, mathematical proofs, set theory, graphs, etc.

Upon successful completion of the course, the student will be able to:

- Understand and formulate mathematical proof using logic and other formal techniques.
  - Employ mathematical induction and recursion.
  - Develop combinatorial and probabilistic arguments and solutions.
  - Understand definitions, properties and operations of set theory.
  - Use graphs to model real world problems and identify solutions to them.
  - Identify how to use discrete mathematical structures to draw up solutions in computing.
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## Accreditation/Certification requirements

This course addresses required capabilities from the ABET Accreditation expectations. Specifically, it addresses the following component of Criterion 3. Student Outcomes:

- An ability to apply knowledge of computing and mathematics appropriate to the program's student outcomes and to the discipline.
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## 100 Grading policy

Grades will be distributed with the following activities:

Activity	Points
Homework	25%
Participation	5%
Midterm exam	25%
Final exam	35%
Quizzes	10%
<b>Total</b>	<b>100%</b>

- **Homework:** Each assignment consists of a set of problems to be solved individually and submitted by a specified deadline. The lowest homework grade will be left out of the overall grade.
- **Participation:** These points will be given based on active participation in class by asking and/or answering to questions.
- **Midterm exam:** An exam containing the first part of the course material.
- **Final exam:** A comprehensive final exam containing all of the course material.
- **Quizzes:** Quizzes will be given during class and will consist of a short problem set to be solved and turned in before the end of that class. Student can check their notes on paper or laptop.

Each assignment will be graded out of 100 points. The final grade will be the average of all assignment grades, scaled to the percentages above. For instance, if a student receives 90, 100, 80 for homeworks, the final homework grade will be  $\frac{(90+100+80)}{3} = 90$ , which corresponds to 22.5% in the final scale.

### Grading scale

Grade	Cutoff
A	93
A-	90
B+	87
B	83
B-	80
C+	77
C	73
C-	70

Grade	Cutoff
D+	67
D	63
D-	60
F	< 60

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## Technology

- Students are allowed to make use of technology to assist them in the process of learning. Laptops, tablets and similar devices are permitted for uses related to the class and **should not cause distractions to anyone present**.
- Homework and assignments **must be typeset**, students should make use of a computer and a text editor to write reports and homework solutions and export them in PDF format.
- **Poll Everywhere** is an online polling platform that we will use throughout the semester to engage you in the course and with your peers. Participation points can be obtained through responding to polls in class.  
Please bring a web-enabled device (phone, tablet, laptop) to every class so you can participate
- Use of **Artificial Intelligence**: all submissions made by a student should be a result of their own work or, in the case of group work, their peers. The use of AI or Large Language Models such as ChatGPT, Llama 2 and Google Bard should be made with caution to ensure it will be beneficial to the student's learning outcomes. Answers generated by such models will **not be accepted**.

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## Late work

Late work will not be accepted unless there is an excused absence. Make sure to notify the instructor as soon as possible to discuss the submission.

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## Student conduct

As it is every member's responsibility to contribute to the creation of a healthy and safe community, students are required to comply with University health and safety directives, guidelines, rules, regulations and protocols in times of emergency and/or public health concern. Violations may be referred for action under the Code of Student Conduct.

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## Copyright notice

The materials on this course Website are only for the use of the course instructor and the students enrolled in this course for purposes associated with this course. Some of these Website materials may be subject to copyrights held by third parties. None of these materials may be (i) retained after the course term expires, (ii) further disseminated, or (iii) accessed by or made available to others. Students

with questions about the permissibility of use of materials on this Website are advised to consult the course instructor.

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## **Lecture recording**

This course, including your participation, will be recorded on video and may be made available to students in the course for viewing remotely. Course videos and materials belong to your instructor, the University, and/or other sources depending on the specific facts of each situation, and are protected by copyright. Do not download, copy, or share any course or student materials or videos without the explicit permission of the instructor. For questions about recording and use of videos in which you appear please contact your instructor.

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## **Office of Disabilities (ODS) and Learning Support Services (LSS)**

It is the policy of Villanova to make reasonable academic accommodations for qualified individuals with disabilities. All students who need accommodations should go to [Clockwork for Students](#) via myNOVA to complete the Online Intake or to send accommodation letters to professors. Go to the LSS website <http://learningsupportservices.villanova.edu> or the ODS website <https://www1.villanova.edu/university/student-life/ods.html> for registration guidelines and instructions. If you have any questions please contact LSS at 610-519-5176 or [learning.support.services@villanova.edu](mailto:learning.support.services@villanova.edu), or ODS at 610-519-3209 or [ods@villanova.edu](mailto:ods@villanova.edu).

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## **Academic Integrity**

All students are expected to uphold Villanova's Academic Integrity Policy and Code. Any incident of academic dishonesty will be reported to the Dean of the College of Liberal Arts and Sciences for disciplinary action. You may view the [University's Academic Integrity Policy and Code](#) for a detailed description.

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## **Absence for Religious Holidays**

Villanova University makes every reasonable effort to allow members of the community to observe their religious holidays, consistent with the University's obligations, responsibilities, and policies. Students who expect to miss a class or assignment due to the observance of a religious holiday should discuss the matter with their professors as soon as possible, normally at least two weeks in advance. Absence from classes or examinations for religious reasons does not relieve students from responsibility for any part of the course work required during the absence. For more information, see <https://www1.villanova.edu/villanova/provost/resources/student/policies/religiousholidays.html>