Class meeting time and place: Tuesdays and Thursdays, 2:30 – 3:45 pm in Mendel 290

Course website: http://www.csc.villanova.edu/~map/1300/s19

Instructor: Dr. M A Papalaskari. 162C Mendel Science Center, (610) 519-7333, map@villanova.edu

Office Hours: Tuesdays: 11:30am-1pm; Wednesdays: 10:30-11:30am & 1:30-3pm; or by appointment

Course description. Mathematical concepts that support computer science: sets, functions, relations, combinatorics, recurrences, Boolean logic, mathematical proofs, matrices, graphs and trees.

Course objectives:
• Establish an understanding of mathematical concepts that support computing, including sets, functions and relations, sequences, summations, Boolean logic, recurrences, elementary combinatorics, matrices, trees, and graphs.
• Establish an understanding of logic, proofs, and mathematical induction.
• Develop mathematical maturity, with emphasis on the ability to read and write valid mathematical arguments.

Accreditation/Certification requirements
This course addresses required capabilities from the ABET Accreditation expectations. Specifically, it addresses the following component of Criterion 3. Student Outcomes
  o (a) An ability to apply knowledge of computing and mathematics appropriate to the program’s student outcomes and to the discipline


Additional (optional) references:
• Mathematics for Computer Science, by Eric Lehman, Thomas Leighton & Albert Meyer. Creative Commons license - (see link in course website, under “Resources”)
**Grade computation**
- Quizzes 15% (lowest two scores are dropped)
- Problem sets 20%
- Participation 5% (in class and on Piazza)
- Exams 30%
- Final Exam 30%

**Final Exam scheduled time:** Friday, May 11, 11:30 am – 2:00 pm

**Grading scale**

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<tr>
<th>Grade</th>
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<td>A</td>
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<td>A-</td>
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<td>B+</td>
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**Academic integrity statement with link to Academic Integrity Gateway**
- All students are expected to uphold Villanova’s Academic Integrity Policy and Code. Any incident of academic dishonesty will result in an “F” for the assignment and will be reported to the appropriate university officials. You can view the Academic Integrity Policy and Code, as well as other useful information related to writing papers, at the Academic Integrity Gateway web site: [http://library.villanova.edu/Help/AcademicIntegrity](http://library.villanova.edu/Help/AcademicIntegrity)
- See also the CSC Department page at [http://csc.villanova.edu/academics/academicIntegrity](http://csc.villanova.edu/academics/academicIntegrity) which includes links to the ACM and Software Engineering Codes of Ethics
- Working on homework problems with a study group is allowed, but each student

**Office of Disabilities and Learning Support Services:**

Students with disabilities who require reasonable academic accommodations should schedule an appointment to discuss specifics with me. It is the policy of Villanova to make reasonable academic accommodations for qualified individuals with disabilities. You must present verification and register with the Learning Support Office by contacting 610-519-5176 or at learning.support.services@villanova.edu or for physical access or temporary disabling conditions, please contact the Office of Disability Services at 610-519-4095 or email Stephen.mcwilliams@villanova.edu Registration is needed in order to receive accommodations.

**Attendance and class participation policies**
- This course requires active involvement of each student during preparation for class, in online discussions, and during class. There will be no makeup quizzes and unexcused absence from class will detract from the participation grade.

**Late assignment submissions:**
- There will be online quizzes due before most classes, which cannot be made up or handed in late. Late problem sets will be accepted. Each student is allowed a total of four late days for the whole semester. After these late days are used up, additional late days carry a penalty of 5%.