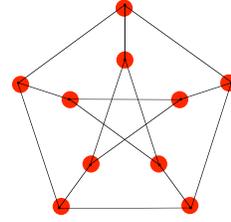


# SYLLABUS

## MAT 645

### Spring 2019



**Class Meetings:** The class meets 10:35am to 11:30am, Monday, Wednesday and Thursday in room 100 Carnegie.

**Description:** Graph Theory is a very large branch of mathematics and it has many applications in the “real world.” In this course, we will try to cover the basics and still include several real-world applications.

**Text:** *Applied Combinatorics 6th Ed.* by Alan Tucker. We will cover the first 4 chapters supplemented by extensive lecture notes.

**Instructor:** Jack Graver

**Office:** 300C Carnegie

**Office hours:** 2:00pm to 3:00pm Tuesday & Wednesday.

However, I am generally in Tuesday through Friday from 9:30am to 3:00pm; you are welcome to stop by any of those times and, if I’m free, I’ll be glad to talk with you.

**Extension:** 1576.

**Email:** [jgraver@syr.edu](mailto:jgraver@syr.edu).

**The grades in the course:** will be based on the assignments (70%) and 3 in-class tests (30%). The final exam is optional and can only improve on the grade as computed above.

**The Final Exam:** Friday, May 3 from 5:15pm to 7:15pm.

**Note to the Class:** Most of the most important theorems are included in this text, but some of the more difficult proofs are not included. I will be filling in the proofs, often in a more general theoretical setting, and including a good bit of additional material. We will use the same text for MAT 646 in Spring 2020. This text is a good general reference for the graph theory and combinatorial results that are used in other areas of mathematics and computer science.

**Expected Learning Outcomes:** Students successfully completing this course should be able to construct graphs to help in visualizing relationships and structures in a wide variety of applications and then use the theorems and properties of graphs to draw conclusions about the application. They also should have improved their proof writing and problem solving skills.

**Students with Disabilities:** If you believe that you need academic adjustments (accommodations) for a disability, please contact the Office of Disability Services (ODS), located in Room 309 of 804 University Avenue, visit the ODS website (<http://disabilityservices.syr.edu>) or call (315) 443-4498 or TDD: (315) 443-1371 for an appointment to discuss your needs and the process for requesting academic adjustments. ODS is responsible for coordinating disability-related academic adjustments and will issue students with documented Disabilities Accommodation Authorization Letters, as appropriate. Since academic adjustments may require early planning and generally are not provided retroactively, please contact ODS as soon as possible.

**Religious observances policy.:** SU religious observances policy recognizes the diversity of faiths represented among the campus community and protects the rights of students, faculty, and staff to observe religious holidays according to their tradition. Under the policy, students are provided an opportunity to make up any examination, study, or work requirements that may be missed due to are religious observance provided they notify their instructors before the end of the second week of classes. For fall and spring semesters, an online notification process is available through MySlice

(Student Services – >Enrollment – >My Religious Observances)  
from the first day of class until the end of the second week of class.

**Academic Integrity:** Syracuse University’s Academic Integrity Policy reflects the high value that we, as a university community, place on honesty in academic work. The policy defines our expectations for academic honesty and holds students accountable for the integrity of all work they submit. Students should understand that it is their responsibility to learn about course-specific expectations, as well as about university-wide academic integrity expectations. The policy governs appropriate citation and use of sources, the integrity of work submitted in exams and assignments, and the veracity of signatures on attendance sheets and other verification of participation in class activities. The policy also prohibits students from submitting the same work in more than one class without receiving written authorization in advance from both instructors. Under the policy, students found in violation are subject to grade sanctions determined by the course instructor and non-grade sanctions determined by the School or College where the course is offered as described in the Violation and Sanction Classification Rubric. SU students are required to read an online summary of the University’s academic integrity expectations and provide an electronic signature agreeing to abide by them twice a year during pre-term check-in on MySlice. The Violation and Sanction Classification Rubric establishes recommended guidelines for the determination of grade penalties by faculty and instructors, while also giving them discretion to select the grade penalty they believe most suitable, including course failure, regardless of violation level. Any established violation in this course may result in course failure regardless of violation level. For more information and the complete policy, see <http://class.syr.edu/academic-integrity/>