MAT 312 / AMS 351 – Applied Algebra
Summer Session II, 2020

Instructor: Alexandra Viktorova.

Contact information: You can contact me by email: alexandra.viktorova@stonybrook.edu. Office hours will be conducted via Zoom, a schedule for office hours will appear later.

Lectures: Lectures will be delivered via Zoom (synchronous online) on Tuesdays and Thursdays 9:30am-12:55pm, beginning on Tuesday, July 7 and ending on Thursday, August 13.

Textbook: Numbers, Groups and Codes (2nd Edition), Humphreys and Prest.

Exams: There will be one midterm and a final exam. Both of them will be take-home exams. They will be uploaded on blackboard and you will have several days to do them (the exact dates will appear later). No make-up exams will be given.

Grading: Homework – 20%, Midterm – 30%, Final – 40%, Quizzes – 10%.

Homework: I will post assignments on the course blackboard page. No late homework will be accepted.

Quizzes: I will post quizzes on the course blackboard page.

Tentative schedule:

Week 1: Euclid's Algorithm, Unique Factorization Theorem, Modular Arithmetic (sections 1.1, 1.3-1.5 in the book)
Week 2: Modular Arithmetic, Euler's Theorem, Public key cryptography (sections 1.5-1.6)
Week 3: Permutations, Intro to groups, Group Theory (sections 4.1-4.3, 5.1-5.2)
Week 4: Groups of small order, Groups and codes (sections 5.3-5.4)
Week 5: Polynomials, Division and Factorization of polynomials (sections 6.1-6.3)
Week 6: Polynomial congruence classes, Cyclic Codes (sections 6.4-6.5)

Americans with Disabilities Act: If you have a physical, psychological, medical or learning disability that may impact your course work, please contact Disability Support Services, ECC (Educational Communications Center) Building, Room 128, (631)632-6748. They will determine with you what accommodations, if any, are necessary and appropriate. All information and documentation is confidential. http://studentaffairs.stonybrook.edu/dss/index.html

Academic Integrity: Each student must pursue his or her academic goals honestly and be personally accountable for all submitted work. Representing another person's work as your own is always wrong. Faculty is required to report any suspected instances of academic dishonesty to the Academic Judiciary. Faculty in the Health Sciences Center (School of Health Technology Management, Nursing, Social Welfare, Dental Medicine) and School of Medicine are required to follow their school-specific procedures. For more comprehensive information on academic integrity, including categories of academic dishonesty please refer to the academic judiciary website at
http://www.stonybrook.edu/commcms/academic_integrity/

Critical Incident Management: Stony Brook University expects students to respect the rights, privileges, and property of other people. Faculty are required to report to the Office of University Community Standards any disruptive behavior that interrupts their ability to teach, compromises the safety of the learning environment, or inhibits students' ability to learn. Faculty in the HSC Schools and the School of Medicine are required to follow their school-specific procedures. Further information about most academic matters can be found in the Undergraduate Bulletin, the Undergraduate Class Schedule, and the Faculty-Employee Handbook.