

Computer Science Department

Registration Newsletter for Spring 2021

Registration is around the corner! Start thinking about your courses for next semester.

Advising Window: October 19 – November 2

Note: some faculty advisors may offer advising appointments before the advising window opens, so check your email.

Registration Window: November 3 - 13

Computer Science majors must meet with their academic advisors before registering for classes.

A registration hold has been placed on your PAWS account and will be removed after the advising meeting.

You will not be able to register for Spring 2021 courses until you've met with your academic advisor, who will remove your hold after the advising meeting.

Please watch for an email from your academic advisor with instructions for making advising appointments. Check PAWS to find your academic advisor, registration date, and appointment time.

**** Visit the CS Department's webpage for a list of advising resources ****

Spring 2021 Options Courses

CSC 315-01: Database Systems, M/TH, 12:30 – 1:50 PM, Prof. DeGood

(Prerequisites: CSC 230, 270, and MAT 127, each with a grade of C or higher. Non-majors may use CSC 250 in lieu of CSC 230.)

This course introduces students to the fundamental concepts necessary for designing, using, and implementing database systems. It stresses the fundamentals of database modeling and design, the language and facilities provided by database management systems, and system implementation techniques. A database management system like Oracle or PostgreSQL is utilized to underscore concepts learned in class.

CSC 425-01: Compilers and Interpreters, M/TH, 2:00 – 3:20 PM, Prof. DeGood

(Prerequisites: CSC 230, 270, and MAT 127, each with a grade of C or higher. Non-majors may use CSC 250 in lieu of CSC 230.)

This course balances the theory and practice by applying theoretical principles within a software project. Topics: formal language theory, regular expressions, finite state automata, Backus-Naur form grammars, formal and informal specification of semantics. Lexical analysis, parsing, scope analysis, type checking, and code generation. Issues of programming language design. Following an attribute grammar specification, students implement a compiler for an object-oriented language.

CSC 470-01: Smart Grid Communication Networks, T/F, 11:00 AM – 12:20 PM, Prof. Das

(Prerequisites: CSC 230, 270, and MAT 127, each with a grade of C or higher. Non-majors may use CSC 250 in lieu of CSC 230.)

This course will introduce various aspects of information-sharing and communication networks in smart grids. This course will cover what defines smart grids, introduction to power systems (transmission, generation, and distribution), the role of information and communication technologies (ICT) in smart grids, and topics of current research and application in the area of smart grid communication networks. Students will be introduced to the NS-3 simulator, a discrete event network simulator, in this course. This simulator will allow students to design and implement communication models, applicable for smart grids, using C++.

CSC 470-02: Machine Learning, T/F, 3:30 – 4:50 PM, Prof. Bloodgood

(Prerequisites: CSC 230, 270, and MAT 127, each with a grade of C or higher. Non-majors may use CSC 250 in lieu of CSC 230.)

Machine learning is when computers learn from patterns in previously observed data how to make useful predictions about new data. This course will provide an introduction to machine learning. The course will cover mathematical and computational foundations of machine learning algorithms. Supervised machine learning algorithms such as support vector machines and neural networks will be covered, as well as applications.

CSC 471-01: Genomics and Bioinformatics, M/TH, 9:30 – 10:50 AM & M, 11:00 AM – 1:50 PM, Prof. Nayak

(Prerequisites: BIO 201, CSC 230, CSC 270, and MAT 127, each with a grade of C or higher. Non-majors may use CSC 250 in lieu of CSC 230.)

This course will cover theoretical and practical components of genomics and bioinformatics. The major topics will include mapping and sequencing genomes, sequence alignment of nucleic acids and proteins, haplotype maps, analysis of complex traits, parallel profiling of gene expression, proteomics, phylogenetic analysis, and data mining. The laboratory will begin with the in silico analysis of gene families, continue to the formulation of a testable hypothesis about gene function, writing a mini-grant for peer review, testing of the hypothesis in a model organism, and conclude with a formal presentation of the data generated during the semester. This course is best suited for undergraduates who wish to continue with a career in basic science or biomedical research.

Couldn't get into the CS courses you wanted?

Complete the CS Department's Qualtrics Form in order to get on the wait-list (*after your registration window has opened*):

<https://bit.ly/34fqkgL>

Computer Science Department Registration Newsletter for Spring 2021

Spring 2021 Computer Science Courses

220-01	M/W	5:30 – 7:30 PM	Prof. Niroomand
220-02	T/TH	5:30 – 7:30 PM	Prof. Russo
230-01	M/TH TH	11:00 AM – 12:20 PM 12:30 – 1:50 PM	Prof. Ferdous
230-02	M/TH M	3:30 – 4:50 PM 2:00 – 3:20 PM	Prof. Ferdous
230-03	T/F F	3:30 – 4:50 PM 2:00 – 3:20 PM	Prof. Das
270-01	M/TH M	9:30 – 10:50 AM 11:00 AM – 12:20 PM	Prof. Salgian
270-02	M/TH M	2:00 – 3:20 PM 12:30 – 1:50 PM	Prof. Salgian
270-03	T/F F	9:30 – 10:50 AM 11:00 AM – 12:20 PM	Prof. Li
270-04	T/F T	2:00 – 3:20 PM 11:00 AM – 12:30 PM	Prof. Li
270-05	T/F T	9:30 – 10:50 AM 11:00 AM – 12:20 PM	Prof. Turka
299-01	M	11:00 AM – 12:20 PM	Prof. Knox
299-02	M	2:00 – 3:20 PM	Prof. Knox
299-03	M	3:30 – 4:50 PM	Prof. Knox
315-01	M/TH	12:30 – 1:50 PM	Prof. DeGood
325-01	M/TH TH	9:30 – 10:50 AM 11:00 AM – 12:20 PM	Prof. Knox
335-01	T/F	9:30 – 10:50 AM	Prof. Papamichail
345-01	M/TH TH	9:30 – 10:50 AM 11:00 AM – 12:20PM	Prof. Yoon
345-02	M/TH TH	2:00 – 3:20 PM 3:30 – 4:50PM	Prof. Yoon
415-01	M/TH TH	9:30 – 10:50 AM 11:00 AM – 12:20 PM	Prof. Pulimood
415-02	M/TH M	12:30 – 1:50 PM 11:00 AM – 12:20 PM	Prof. Pulimood
425-01	M/TH	2:00 – 3:20 PM	Prof. DeGood
445-01	T/F	2:00 – 3:20 PM	Prof. Papamichail
470-01	T/F	11:00 AM – 12:20 PM	Prof. Das
470-02	T/F	3:30 – 4:50 PM	Prof. Bloodgood
471-01	M/TH M	9:30 – 10:50 AM 11:00 AM – 1:50 PM	Prof. Nayak

Need help choosing your courses for the next few semesters?

Visit the department's advising webpage for more information on course planning, the suggested sequence, and requirements for internships and mentored research projects.

Reminder: all rising CS juniors *must* take CSC 299 in Spring 2021.

Advising Notes:

Fully completed and signed mentored research forms for CSC 298, 498, and 499 must be submitted to cs@tcnj.edu by the end of the registration window, 4:30 P.M. on November 13, 2020.

Registration Questions?

Please contact the CS office (cs@tcnj.edu), Dr. Salgian (salgian@tcnj.edu), or your CS advisor for more information on Spring 2021 courses. More information is also available on computerscience.tcnj.edu