

Computer Science Department

Registration Newsletter for Fall 2024

Advising Window: March 18 – April 1

Registration Window: April 2 – 12

All Computer Science majors must meet with their advisors before registering for classes. Your advisor will share information and instructions for making advising appointments via email.

Please note that a registration hold has been placed on your PAWS account and will be removed **only after** the advising meeting.

It is your responsibility to set up a meeting with your advisor in a timely manner so that your hold is removed and you are able to register when your advising window opens.

Other PAWS Holds

During advising, review your PAWS account for any financial, health, and/or housing requirement holds that you may have. Until these holds are removed, you will not be able to enroll in Fall 2024 classes.

The CS Department cannot remove these holds and you will need to follow instructions to meet the requirements by clicking the Ø “hold” icon on PAWS and contacting the appropriate office.

Fall 2024 Advanced Core Option

CSC 360-01: Computer Networking, M/TH, 2:00 – 3:20 PM, Dr. Li

CSC 360-02: Computer Networking, M/TH, 3:30 – 4:50 PM, Dr. Li

(Prerequisites: CSC 230, CSC 270, and MAT 127, each with a grade of C or higher.)

This course introduces basic elements of modern computer and telecommunication networks. A hybrid five-layer reference model resembling the popular TCP/IP model is discussed. In each layer, the state-of-the-art hardware and software technologies are introduced. These include: fiber-optic and mobile/cellular communications; HTTP/WEB; wavelength/time division multiple access protocols; TCP/UDP and ATM adaptation layer protocols; network security.

Fall 2024 Options Courses

CSC 355-01: Human Computer Interaction, M/TH, 2:00 – 3:20 PM, Dr. Salgian

(Prerequisites: CSC 230, CSC 270, and MAT 127, each with a grade of C or higher.)

This course will cover various aspects of the interaction between computer systems and human operators. Topics covered will include the underlying principles for human computer interaction, from aspects of human perception and memory, to user interface design. The course will culminate in a final project in which students will design and implement their own HCI applications.

Fall 2024 Options Courses (Continued)

CSC 380-01: Artificial Intelligence, T/F, 3:30 – 4:50 PM, Dr. Yoon

(Prerequisites: CSC 230, CSC 270, and MAT 127, each with a grade of C or higher.)

The study of how to make the computer behave intelligently. Topics: state-space methods of problem solving, heuristic search techniques, representation and use of knowledge, applications and design of expert systems, natural language processing, vision and image understanding. Design of specifications for intelligent agents is discussed at length and a high level implementation is developed.

CSC 470-01: Special Topics, Computer Science III, M/TH, 9:30 – 10:50 AM, Prof. DeGood

(Prerequisites: CSC 230, CSC 270 and MAT 127, each with a grade of C or higher.)

This course expands on the principles and techniques of software development covered in CS I and CS II: how to write software that is reliable, secure, modular, and reusable. Topics include abstraction, secure programming, the software development lifecycle, version control, scripting, and parallel processing.

**** This course cannot be taken by students who have already taken CSC 415 ****

CSC 470-02: Special Topics, Cryptography and Cybersecurity, M/TH, 3:30 – 4:50 PM, Dr. Datta

(Prerequisites: CSC 230, CSC 270 and MAT 127, each with a grade of C or higher.)

This course will provide students with a broad introduction to the principles and applications of cryptography and its role in cybersecurity. Students will learn about the application of these cryptographic techniques in various aspects of cybersecurity, such as securing communication channels, data integrity, authentication processes, and protecting against common cyber threats. Additionally, the course delves into real-world applications and case studies to explore the role of cryptography in network security, internet privacy, and digital identity verification. Throughout the course, students will have the opportunity to apply their knowledge through practical exercises and case studies, fostering a deep understanding of how cryptography and cybersecurity principles are applied in real-world scenarios. Topics covered include cryptographic algorithms, protocols, cryptographic systems, security models, threats, and countermeasures.

CSC 471-A/A01: (cross-listed as BIO 471-A/A01): Genomics and Bioinformatics, M/TH, 8:00 – 9:20 AM & T, 9:30 AM – 12:20 PM, Dr. Nayak

(Prerequisites: CSC 230, CSC 270, and MAT 127, each with a grade of C or higher, and BIO 201.)

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://tcnj.co1.qualtrics.com/jfe/form/SV_8Bust8sVdudpmgm

Computer Science Department Advising Notes

Fall 2024 Computer Science Core Courses

199-01	M	11:00 AM – 12:20 PM	Dr. Das
199-02	M	5:30 – 6:50 PM	Dr. Li
199-03	TH	5:30 – 6:50 PM	Dr. Li
220-01	T/F F	9:30 – 10:50 AM 11:00 AM – 12:20 PM	Dr. Russo
220-02	T/F T	2:00 – 3:20 PM 11:00 AM – 12:20 PM	Dr. Russo
220-03	M/TH TH	12:30 – 1:50 PM 2:00 – 3:20 PM	Dr. Datta
220-04	T/TH	5:30 – 7:30 PM	Dr. Papamichail
220-05	T/F F	9:30 – 10:50 AM 11:00 AM – 12:20 PM	Dr. Turka
220-06	T/F T	2:00 – 3:20 PM 11:00 AM – 12:20 PM	Dr. Turka
230-01	M/TH TH	11:00 AM – 12:20 PM 2:00 – 3:20 PM	Dr. Ferdous
230-02	M/TH M	3:30 – 4:50 PM 2:00 – 3:20 PM	Dr. Ferdous
230-03	M/TH TH	9:30 – 10:50 AM 11:00 AM – 12:20 PM	Dr. Das
270-01	T/F F	11:00 AM – 12:20 PM 2:00 – 3:20 PM	Dr. Bloodgood
270-02	T/F T	3:30 – 4:50 PM 2:00 – 3:20 PM	Dr. Bloodgood
325-01	M/TH M	11:00 AM – 12:20 PM 12:30 – 1:50 PM	Prof. DeGood
325-02	M/TH TH	3:30 – 4:50 PM 12:30 – 1:50 PM	Prof. DeGood
335-01	T/F	2:00 – 3:20 PM	Dr. Papamichail
335-02	T/F	3:30 – 4:50 PM	Dr. Papamichail
345-01	T/F F	9:30 – 10:50 AM 11:00 AM – 12:20 PM	Dr. Yoon
415-01	M/TH M	9:30 – 10:50 AM 11:00 AM – 12:20 PM	Dr. Pulimood
415-02	M/TH TH	12:30 – 1:50 PM 11:00 AM – 12:20 PM	Dr. Pulimood
435-01	M/TH	12:30 – 1:50 PM	Dr. Das

Advising Resources

Visit the [CS Department's advising webpage](#) for more information on course planning, including suggested sequence documents, advising forms, and requirements for internships and mentored research projects.

Reminder: all rising CS sophomores must take CSC 199 in Fall 2024.

If you need to retake CSC 099, please contact Ms. Zsilavetz at cs@tcnj.edu

Research Forms

Completed mentored research forms must be submitted via the School of Science [Qualtrics form](#) by the end of the registration window, 4:30 P.M. on April 12, 2024.

Questions?

Please contact the CS Office (cs@tcnj.edu), Dr. Salgian (salgian@tcnj.edu), or your CS academic advisor (check PAWS for this information).