

## **Fall 2021 BSCS Undergraduate Electives**

- **CSCI 3515 IoT Sensing, Communication & Control**, He
  - Pre-requisite: CSCI 2312 & 2421
- **CSCI 3920 Adv. Programming w/Java & Python**, Pastorino
  - Pre-requisite: CSCI 2312 & 2421
- **CSCI 4202 Artificial Intelligence**, Williams
  - Pre-requisites: CSCI 3412
- **CSCI 4220 Social Networks & Informatics**, Debnath
  - Pre-requisite: CSCI 3412
- **CSCI 4570 VR and AR**, Choi
  - Pre-requisite: CSCI 3412
- **CSCI 4771 Intro to Mobile Computing**, Li
  - Pre-requisite: CSCI 3761 & 3453
- **CSCI 4920 Computer Game Design & Programming**, Choi
  - Pre-requisite: CSCI 3412

## **Fall 2021 Breadth Courses**

**Secure Computing:** **CSCI 4743 Cyber & Infrastructure Defense**, Jafarian  
Pre-requisite: CSCI 3761  
Required for the Cybersecurity and Secure Computing (CSCC) Certificate

**Data Science:** **CSCI 4455 Data Mining**, Banaei-Kashani  
Pre-requisites: CSCI 3287 & 3412, MATH 3195  
**CSCI 4930 Machine Learning**, Biswas  
Pre-requisites: CSCI 3412 & MATH 3195  
**CSCI 4951 Big Data Systems**, Banaei-Kashani  
Pre-requisites: CSCI 3287 & 3412, MATH 3195

**Scientific Computing:** **CSCI 3560, Probability & Computing**, Lakhani  
Pre-requisites: CSCI 2511 & MATH 2411  
**CSCI 4650, Numerical Analysis**  
Pre-requisites: MATH 2411 & 3195

**System Software:** **CSCI 3511, Hardware/Software Interface**, He  
Pre-requisites: CSCI 2525