

# Bachelor of Science in **Computer Information Systems** **Networking Track**

School of Mathematics, Science and Engineering

## PROGRAM OVERVIEW

The Bachelor of Science (B.S.) in Computer Information Systems (CIS) – Networking in the School of Math, Science and Engineering at the University of the Incarnate Word provides its students with a broad base of theoretical and experiential knowledge and skills that respond to the rapid changes in the field. Graduates of the UIW CIS Program can plan, design, assemble and operate computer systems and networks for a wide range of organizations. CIS students install, configure, program, protect, administer and apply hardware and software systems. They also gain the types of social skills required to be successful today, including team working, decision-making, visual modeling, project management, and effective technical and non-technical communications.

## QUICK FACTS

Our modern world is dependent on people using computer devices to communicate with others. Knowing how networking and telecommunications work and how to develop and create networks at all levels from devices within and on your body to interplanetary spacecraft is an indispensable skill for the future. The emerging Internet of Things (IoT) promises to open many more opportunities for people skilled in computer networking.

## PREREQUISITES AND COURSES

- CIS 2328 – Hardware & Systems Software
- CIS 3325 - Linux Networking
- CIS 3340 - Client-Server Networking
- CIS 3367 – Networks & Telecommunications
- CIS 3370 - Intrusion Detection Systems
- CIS 4355 - Cloud Computing
- CIS/MIS 3362 – Systems Analysis & Specification
- CSEC 3320 – Network Security Management

## CONTACT

**UIW Admissions**  
(210) 829-6005  
admission@uiwtx.edu

## B.S. in Computer Information Systems - Networking

### FRESHMAN YEAR

#### Fall

CIS 1100: Orientation to CIS (1 hour)  
 CIS 1301: Computer Information Systems (3 hours)  
 CIS 2328: Hardware and Systems Software (3 hours)  
 CIS 1333: Scripting Languages (3 hours)  
 FYES 1211: First Year Experience Seminar (2 hours)  
 ENGL 1311: Composition I (3 hours)

**Total Hours: 15**

#### Spring

CIS 2340: Intro to Operating Systems (3 hours)  
 CIS 2330: Programming Languages I (3 hours)  
 CIS 2335: Computer Networks (3 hours)  
 ENGL 1312: Composition II (3 hours)  
 MATH 1304/1308/1310 or Higher (3 hours)

**Total Hours: 15**

### SOPHOMORE YEAR

#### Fall

CIS 2350: UNIX/Linux Operating System (3 hours)  
 CIS 2368: Website Development I (3 hours)  
 CIS 3367: Networks and Telecommunications (3 hours)  
 PHIL 1381: Introduction to Philosophy (3 hours)  
 Modern Language I (3 hours)

**Total Hours: 15**

#### Spring

CIS 3340: Windows Client-Server Network (3 hours)  
 CIS 3362: Systems Analysis and Design (3 hours)  
 ENGL 2310: World Literature Studies (3 hours)  
 Modern Language II (3 hours)  
 ECON 2301: Macroeconomics (3 hours)  
 CIS 2190: Seminar in CIS (1 hour)

**Total Hours: 16**

### JUNIOR YEAR

#### Fall

CIS 3310: Database Management Systems (3 hours)  
 CIS 3353: Computer Systems Security (3 hours)  
 RELS Religious Studies (3 hours)  
 Science Course with Lab (4 hours)  
 Elective Course (3000+) (3 hours)

**Total Hours: 16**

#### Spring

CIS 3325: Linux Networking (3 hours)  
 CIS 4355: Cloud Computing (3 hours)  
 \*Additional CIS Specialization Course (3 hours)  
 CIS 3319: Internship in CIS (3 hours)  
 Advanced PHIL or RELS Course (3 hours)

**Total Hours: 15**

### SENIOR YEAR

#### Fall

CIS 3370: Intrusion Detection Systems (3 hours)  
 \*Additional CIS Specialization Course (3 hours)  
 Fine Arts (3 hours)  
 Elective Course (3000+) (3 hours)  
 Elective Course (3000+) (3 hours)

**Total Hours: 15**

#### Spring

CIS 4390: CIS Capstone (3 hours)  
 Elective Course (3000+) (3 hours)  
 HIST 1311, 1312, 1321 or 1322 (3 hours)  
 PEHP Physical Fitness Course (1 hour)  
 Elective Course (3000+) (3 hours)

**Total Hours: 13**

**\*Note 1: Specialization options include CIS 3330, CIS 3335, CIS 3345, CIS 3365, CIS 3380, CIS 4370 and CIS 4380**

120 hours needed to complete the B.S. in Computer Information Systems with a Networking track.