

University of the Incarnate Word<sup>®</sup>

# 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 provide its students with a broad base of theoretical and experiential knowledge and skills that responds 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**  
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**CIS - 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)  
 MATH 1304/1308/1310 or Higher (3 hours)  
 ENGL 1311: Composition I (3 hours)  
 Modern Language I (3 hours)

**Total Hours: 16**

#### 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)  
 Modern Language II (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)  
 ECON 2301: Macroeconomics (3 hours)

**Total Hours: 15**

#### Spring

CIS 2333: Scripting Languages (3 hours)  
 CIS 3340: Windows Client-Server Network (3 hours)  
 CIS 3310: Database Management Systems (3 hours)  
 ENGL 2310: World Literature Studies (3 hours)  
 HIST 1311, 1312, 1321 or 1322 (3 hours)

**Total Hours: 15**

### JUNIOR YEAR

#### Fall

CIS 4190: Seminar in CIS (1 hour)  
 CIS 3362: Systems Analysis and Design (3 hours)  
 CIS 3353: Computer Systems Security (3 hours)  
 RELS Religious Studies (3 hours)  
 Science Course with Lab (4 hours)

**Total Hours: 14**

#### Spring

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

**Total Hours: 15**

### SENIOR YEAR

#### Fall

CIS 3370: Intrusion Detection Systems (3 hours)  
 CIS 3319: Internship in CIS (3 hours)  
 \*Additional CIS Specialization Course (3 hours)  
 Elective Course (3 hours)  
 Elective Course (3 hours)

**Total Hours: 15**

#### Spring

CIS 4390: CIS Capstone (3 hours)  
 Any Advanced Course (3000+) (3 hours)  
 DWHP 1200: Dimensions of Wellness (2 hours)  
 PEHP Physical Fitness Course (1 hour)  
 Elective Course (3 hours)  
 Elective Course (3 hours)

**Total Hours: 15**

**\*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.