



COMPUTER SCIENCE MAJOR

The Computer Science major offers four concentrations: **Computer Engineering, Information Science, Internet Programming** and **Software**. The department also offers two certificates: **System Engineering, Website** and **Internet Applications Development** and three minors: **Information Science, Internet Programming** and **Software**. Students are required to complete a minimum of 48 hours of courses including the core requirements, at least one concentration, and a minimum of two elective courses. In addition, students must satisfy the supportive requirements.

COURSES

1. Core Classes:

CMPN 280: Computer Organization	CMPS 385: Data Structures
CMPS 367: Object Oriented Language C++	CMPS 471: Internship
CMPS 368: Principles of Computer Network	CMPS 499: Senior Project
CMPS 370: Seminar	Comprehensive Exam

2. Concentration:

A. Engineering	B. Information Science	C. Internet Programming	D. Software
CMPN 150: Prin. of Elect.	CMPS 375: Sys. An. & Design	CMPS 218: Pub. on the Web I	CMPS 371: Assembly Language
CMPN 202: Elect. Devices	CMPS 392: Project Mgmt.	CMPS 319: Pub. on the Web II	CMPS 400: Anal. of Algorithms
CMPN 330: Microproc. Sys.	CMPS 410: Mgmt. Info. Sys.	CMPS 320: Internet Apps Dev.	CMPS 455: Compiler Design
CMPS 420: Cyber Security	CMPS 420: Cyber Security	CMPS 378: C# Programming	CMPS 460: Operating System
CMPN 480: Adv.Cmp. Arch.	CMPS 490: DBMS	CMPS 480: Dist. Internet Comp	CMPS 490: DBMS

3. Electives: A minimum of two courses from any concentration outside the chosen concentration or from the following courses: CMPN 303: Integrated Electronics, CMPS 218: Publishing on the Web I, CMPS 260: Introduction to Linux, CMPS 362: Numerical Algorithms, CMPS 369: Local Area Networks, CMPS 372: Introduction to Python Programming, CMPS 377: Visual Basic .NET, CMPS 379: Java Programming, CMPS 388: Software Engineering, CMPS 390: Special Topics in Computer Science, CMPS 451: Artificial Intelligence, CMPS 463: Computer Graphics, CMPS 481: Mobile Applications Development, and CMPS 491: Systems Architecture.

4. Supportive Classes:

CMPS 301: Programming concepts	MATH 201: Calculus I	MATH 327: Discrete Mathematics
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A. Engineering	B. Information Science	C. Internet Programming	D. Software
CHEM103: Intro to Chem. or	ACCT 201: Fun. of Acc. or	MATH 202: Calculus II	MATH 202: Calculus II
CHEM 201: Gen. Chem.	ACCT 203: Fin. Mgmt. Acc.	PHYS 201, 202: General	PHYS 201, 202: General
MATH 202: Calculus II	ECON 221: Econ. Analysis or	Physics I and II or	Physics I and II or
PHYS 201, 202: General	ECON 228: Econ. Theories	PHYS 203, 204: Mechanics,	PHYS 203, 204: Mechanics,
Physics I and II or	MGMT 300: Prin. of Mgmt.	and Elect. & Magnet.	and Elect. & Magnet.
PHYS 203, 204: Mechanics,	PHYS 201: General Physics I or		
and Elect. & Magnet.	PHYS 203: Mechanics		

Certificates:

- System Engineering:** CMPS 370, 375, 392, 410, 491.
- Website and Internet Applications Development:** CMPS 318, 319, 320, 378, 480, 481.

Computer Science Minors:

- Information Science:** CMPS 375, 392, 410, 490, and one elective course.
- Internet Programming:** CMPS 218, 319, 320, 378, 480, 481.
- Software:** CMPS 362 or 400, 367, 378 or 379, 385, 460.

FACULTY

- Ahmad Abu Shanab**, Assistant Professor. Ph.D. Florida Atlantic University, M.S. Academy for Banking and Financial Sciences, Amman, Jordan, B.S. Al-Balqa'a Applied Univ. Al-Salt, Jordan.
- Ray Ahmadnia**, Associate Professor. Ed.D. University of La Verne, M.S., University of Nebraska, M.A. University of New Mexico.
- Jozef Goetz**, Professor. Ph.D., M.S., and ENG., University of Science and Technology, Wroclaw, Poland.
- Seta Whitby**, Professor and Chairperson. Ed.D., M.S., and B.S. University of La Verne, and M.S. Claremont Graduate University.

ALUMNI

- Graduate Schools:** Arizona State, Azusa Pacific, Claremont Graduate University, CSU Long Beach, CSU Northridge, CSU Fullerton, UC Irvine, USC, ULV, Carnegie Mellon, University of Manchester - School of Computer Science and Webster University.
- Industries:** ATK, Boeing, Department of Water and Power, Education K-12, Cal-Poly, Industrial Light and Magic (ILM), JPL, Lockheed, Microsoft, Northrop, EP Systems/ Fiserv, Unisys.