

INFORMATION SYSTEMS

Schneider Social Science 404
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www.uwec.edu/is (<https://www.uwec.edu/academics/college-business/departments-programs/information-systems/>)

Information Systems (IS) is the study of the development, management and application of computer information systems by businesses.

IS graduates have a wide variety of excellent career prospects. Systems/business/data analyst, web services developer, application software developer, project manager, digital network manager, risk assurance professional, and database administrator are just a few of the prestigious and well-paid positions available.

The IS program is housed in the College of Business, allowing IS graduates to obtain a broad background in business concepts. This allows them to develop expertise in bridging the gap between business professionals and computer technologists. IS graduates develop important business knowledge and skills such as communication, teamwork, and problem solving, as well as technical knowledge and skills such as systems analysis and design, computer programming, database management, network management, and Web development.

The IS department offers a comprehensive major (62 credits, no minor required). The department also offers a minor (25 credits) and a certificate (12 credits).

Student Organizations

The IS department sponsors a student chapter of the Association of Information Technology Professionals (AITP) (<https://www.facebook.com/AITPatUWEC/>). Membership is open to all students interested in the study of information systems.

Department of Information Systems Scholarships

Refer to the College of Business website for an up-to-date listing of Department of Information Systems scholarships (<http://www.uwec.edu/academics/college-business/academic-resources/scholarships/>), or contact the department at is@uwec.edu or 715-836-4320.

Faculty

Anthony Keys, Chair
Ali Ahmed
Ezgi Akar
Liqiang Chen
Jean Pratt
Mark Staloch
Ruidong Zhang

Majors

- Comprehensive Major: Information Systems - B.B.A. (<http://catalog.uwec.edu/undergraduate/business/information-systems/information-systems-comprehensive-major-bba/>)

Minors

- Minor: Information Systems (<http://catalog.uwec.edu/undergraduate/business/information-systems/information-systems-minor/>)

Certificates

- Certificate: Information Systems (<http://catalog.uwec.edu/undergraduate/business/information-systems/information-systems-certificate/>)

IS 220 Service-Learning in Information Systems (1 cr)

Consent: Instructor Consent Required

- *No credit toward IS major.*

Provides opportunity to obtain practical experience in analysis, design, and implementation of information systems. All assignments must be completed within one calendar year (preferably one semester). Assignments outstanding longer than one year will be graded unsatisfactory.

Attributes: Service-Learning, Full 30 Hours

Grading Basis: S/U Only Grade Basis

Lecture/Discussion Hours: 0

Lab/Studio Hours: 2

IS 240 Information Systems in Business (3 crs)

Prerequisite: Minimum sophomore standing, or consent of instructor.

- *This course requires access to a laptop computer which can be brought to class when required. Please see the COB laptop requirement: <https://www.uwec.edu/academics/college-business/laptop-requirement/>.*

A study of information systems in business to include management decision support systems, concepts of systems analysis and design, and information processing. Students will learn to use and apply various software programs as productivity tools.

Lecture/Discussion Hours: 3

Lab/Studio Hours: 0

IS 290 Introduction to Database Applications (3 crs)

Prerequisite: No credit if taken after IS 344.

- *This course requires access to a laptop computer which can be brought to class when required. Please see the COB laptop requirement: <https://www.uwec.edu/academics/college-business/laptop-requirement/>.*

An introduction to database applications created by end users. Students will learn to construct a database, user interface, and reports to summarize data.

Lecture/Discussion Hours: 3

Lab/Studio Hours: 0

IS 304 Fundamentals of Business Programming (3 crs)

Prerequisite: IS 240 or consent of instructor.

- *This course requires access to a laptop computer which can be brought to class when required. Please see the COB laptop requirement: <https://www.uwec.edu/academics/college-business/laptop-requirement/>.*

Fundamental skills and knowledge for programming business applications including interface design, writing documentation, and using debugging tools. Procedural programming structures and design considerations and interface object use are presented in a state-of-the-art integrated development environment.

Lecture/Discussion Hours: 3

Lab/Studio Hours: 0

IS 310 Systems Analysis and Design (3 crs)

Prerequisite: IS 240

- *This course requires access to a laptop computer which can be brought to class when required. Please see the COB laptop requirement: <https://www.uwec.edu/academics/college-business/laptop-requirement/>.*

Introduces theory and practice of systems analysis and design. Topics include determining business requirements, documenting organizational processes, analyzing information flows, reengineering/designing information systems, and managing projects. Team project required.

Lecture/Discussion Hours: 3

Lab/Studio Hours: 0

IS 314 Business Software Engineering (3 crs)

Prerequisite: IS 304, 310 or concurrent enrollment; or consent of instructor.

- *This course requires access to a laptop computer which can be brought to class when required. Please see the COB laptop requirement: <https://www.uwec.edu/academics/college-business/laptop-requirement/>.*

Develops object-oriented programming skills at the intermediate level. Develops techniques of data access, input, output, and processing in a business environment using programming tools. Utilizes beginning SQL programming techniques and a state-of-the-art integrated development environment.

Lecture/Discussion Hours: 3

Lab/Studio Hours: 0

IS 320 Internship in Information Systems I (1-3 crs)

Prerequisite: IS 240. No credit if taken after IS 420. Limited to IS Majors.

Minimum sophomore standing.

Consent: Department Consent Required

- *Internship enrollment form available in IS department office.*

Initial coordinated on-the-job business experience in information systems. Gives students an opportunity to participate actively in daily business activities related to the IS major.

Attributes: LE-11 Integration, Internship, Special Course Fee Required

Repeat: Course may be repeated for a maximum of 6 credits

Lecture/Discussion Hours: 1-3

Lab/Studio Hours: 0

IS 324 Object-Oriented Systems (3 crs)

Prerequisite: IS 304, IS 310

- *This course requires access to a laptop computer which can be brought to class when required. Please see the COB laptop requirement: <https://www.uwec.edu/academics/college-business/laptop-requirement/>.*

An introduction to Object-Oriented Analysis, Design and Implementation language and concepts. Iterative methodologies are described. Design patterns and tiered architectures are investigated. An object-oriented system is used to illustrate the concepts.

Lecture/Discussion Hours: 3

Lab/Studio Hours: 0

IS 344 Database Management Systems (3 crs)

Prerequisite: IS 304, 310

- *This course requires access to a laptop computer which can be brought to class when required. Please see the COB laptop requirement: <https://www.uwec.edu/academics/college-business/laptop-requirement/>.*

Study of physical and logical design and structure of relational databases; overview of SQL; hands-on experience with client/server database management software. Group project required.

Lecture/Discussion Hours: 3

Lab/Studio Hours: 0

IS 345 Networking with Client Operating Systems (3 crs)

Prerequisite: IS 240.

- *This course requires access to a laptop computer which can be brought to class when required. Please see the COB laptop requirement: <https://www.uwec.edu/academics/college-business/laptop-requirement/>.*

Study of enterprise networking from a client operating system perspective. Theory and practice of topics such as networking models, domains, Active Directory, domain client, desktop/user profiles, resource sharing, authentication, and network security.

Lecture/Discussion Hours: 3

Lab/Studio Hours: 0

IS 365 Information Assurance (3 crs)

Prerequisite: IS 310. Minimum junior standing.

- *This course requires access to a laptop computer which can be brought to class when required. Please see the COB laptop requirement: <https://www.uwec.edu/academics/college-business/laptop-requirement/>.*

Conceptual frameworks for information assurance: asset valuation, security threats, risk assessment, policy development, policy implementation, controls, business continuity planning, and disaster recovery. Communication and analytical skills are enhanced through a case-based approach.

Attributes: Undergraduate/Graduate Offering

Lecture/Discussion Hours: 3

Lab/Studio Hours: 0

IS 375 Server-based Networking & Security (3 crs)

Prerequisite: IS 345

- *This course requires access to a laptop computer which can be brought to class when required. Please see the COB laptop requirement: <https://www.uwec.edu/academics/college-business/laptop-requirement/>.*

Study of theory and practice of enterprise networking from a server operating system perspective. Topics include domain creation, Active Directory management and delegation, scripting, security policies, roaming profiles, access permissions, and security auditing.

Lecture/Discussion Hours: 3

Lab/Studio Hours: 0

IS 384 Advanced Design and Development (3 crs)

Prerequisite: IS 344

- *This course requires access to a laptop computer which can be brought to class when required. Please see the COB laptop requirement: <https://www.uwec.edu/academics/college-business/laptop-requirement/>.*

Real-world information systems design and development cases. Includes project management in real organizational contexts. Requires understanding of design and development but not expertise. Leadership development via participation in multi-skilled teams.

Lecture/Discussion Hours: 3

Lab/Studio Hours: 0

IS 391 Selected Topics in Information Systems (1-3 crs)

- *Admission to College of Business not required. Available to non-business students.*

Selected topics in information systems. Small groups will study topics selected because of a special interest in them on the part of students or faculty.

Repeat: Course may be repeated for a maximum of 6 credits

Lecture/Discussion Hours: 1-3

Lab/Studio Hours: 0

IS 399 Independent Study - Juniors (1-3 crs)

Consent: Department Consent Required

- Enrollment form available in IS department office.

Repeat: Course may be repeated

IS 410 Network and Data Security (3 crs)

Prerequisite: IS 304, 345

- *This course requires access to a laptop computer which can be brought to class when required. Please see the COB laptop requirement: <https://www.uwec.edu/academics/college-business/laptop-requirement/>.*

Addresses hardware and software fundamentals of network security including access control security, information security, and security planning and development. Develops students' working knowledge of available methods and tools for enhancing enterprise data and network security.

Lecture/Discussion Hours: 3

Lab/Studio Hours: 0

IS 420 Internship in Information Systems (1-3 crs)

Prerequisite: Limited to IS majors.

Consent: Department Consent Required

- *IS 310, IS 344, and IS 345 are recommended prior to enrollment in this course. Internship enrollment form available in IS department office.*

Coordinated on-the-job business experience in information systems. Gives students an opportunity to participate actively in daily business activities related to the IS major.

Attributes: LE-11 Integration, Internship, Special Course Fee Required

Repeat: Course may be repeated for a maximum of 6 credits

IS 450 Distributed Systems Development (3 crs)

Prerequisite: IS 314 or equivalent; IS 344 and IS 345 or concurrent; or consent of instructor.

- *This course requires access to a laptop computer which can be brought to class when required. Please see the COB laptop requirement: <https://www.uwec.edu/academics/college-business/laptop-requirement/>.*

A study of the content, theory, and methodology of distributed systems application development. Specifically, the course covers n-tier and web-based development.

Lecture/Discussion Hours: 3

Lab/Studio Hours: 0

IS 455 Project Management (3 crs)

Prerequisite: IS 304 and IS 310. Minimum junior standing.

- *This course requires access to a laptop computer which can be brought to class when required. Please see the COB laptop requirement: <https://www.uwec.edu/academics/college-business/laptop-requirement/>.*

Focus on information systems projects: methodology selection, initiating, planning, executing, control and closing. Issues of time, scope, cost, quality and risk are investigated. Writing and software development skills are enhanced.

Attributes: Special Course Fee Required

Lecture/Discussion Hours: 3

Lab/Studio Hours: 0

IS 460 Seminar in Information Systems (3 crs)

Prerequisite: IS 344 and IS 345. Limited to IS majors.

- *This course requires access to a laptop computer which can be brought to class when required. Please see the COB laptop requirement: <https://www.uwec.edu/academics/college-business/laptop-requirement/>. Limited to graduating seniors.*

In-depth study of current IS topics and discussion of current IS issues and trends. Includes integrated communication component and team-based information systems development project.

Attributes: Capstone Course, Special Course Fee Required

Lecture/Discussion Hours: 3

Lab/Studio Hours: 0

IS 475 Electronic Business (3 crs)

Prerequisite: IS 310

- *This course requires access to a laptop computer which can be brought to class when required. Please see the COB laptop requirement: <https://www.uwec.edu/academics/college-business/laptop-requirement/>.*

Basics of electronic commerce, on the Internet, electronic data interchange, electronic funds transfer, etc. Students will address current applications for a wide range of businesses.

Lecture/Discussion Hours: 3

Lab/Studio Hours: 0

IS 491 Selected Topics (1-3 crs)

Prerequisite: Minimum junior standing.

Selected topics in information systems. Small groups will study topics selected because of a special interest in them on the part of students or faculty.

Repeat: Course may be repeated for a maximum of 6 credits

Lecture/Discussion Hours: 1-3

Lab/Studio Hours: 0

IS 495 Directed Studies (1-3 crs)

Prerequisite: Limited to IS majors. Minimum junior standing.

Consent: Department Consent Required

Internship-type experiences in business situations relevant to the student's major field of study, under supervision of a faculty member.

IS 499 Independent Study - Seniors (1-3 crs)

Consent: Department Consent Required

- Enrollment form available in IS department office.

Repeat: Course may be repeated

IS 740 Managing Information Technology Foundation (2 crs)

Prerequisite: Limited to MBA students.

- *No credit if taken after IS 240. Not for MBA degree credit.*

Study of the managerial process used when working with information and information systems. Specific attention is given to the principles of systems development and underlying concepts.

Attributes: Higher Cost Per Credit

Grading Basis: No S/U Grade Option

Lecture/Discussion Hours: 2

Lab/Studio Hours: 0

IS 797 Independent Study (1-3 crs)

Consent: Department Consent Required

Individual project under the direction of a faculty member.

Repeat: Course may be repeated

Grading Basis: No S/U Grade Option
