DEPARTMENT OF COMPUTER INFORMATION SYSTEMS

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biz.colostate.edu/cis (http://biz.colostate.edu/cis)
Professor Dan Turk, Chair

Undergraduate
Major in Business Administration
- Information Systems Concentration

Certificates
- Information Technology for Business Professionals

Graduate
Certificates
- Business Analytics and Accounting Systems
- Business Information Systems
- Business Intelligence
- Information Technology Project Management

Master Programs
- Master of Computer Information Systems, Plan C (M.C.I.S.)
- Master of Science in Business Administration, Plan A, Computer Information Systems Specialization (No new students are being accepted into this specialization.)
- Master of Science in Business Administration, Plan B, Computer Information Systems Specialization (No new students are being accepted into this specialization.)

Courses

Computer Information Systems (CIS)

CIS 120 Business Programming Fundamentals Credits: 3 (3-0-0)
Course Description: File and operating systems for business application development. Business program development using a high-level programming language.
Prerequisite: None.
Registration Information: Credit not allowed for both CIS 120 and CIS 210.
Terms Offered: Fall, Spring.
Grade Mode: Traditional.
Special Course Fee: No.

CIS 200 Business Information Systems Credits: 3 (3-0-0)
Course Description: Use of information technology (IT) to enable knowledge workers, support business processes, and grow the business.
Prerequisite: None.
Registration Information: Passing score on Excel competency exam.
Terms Offered: Fall, Spring, Summer.
Grade Mode: Traditional.
Special Course Fee: No.

CIS 210 Information Technology in Business Credits: 3 (3-0-0)
Course Description: Introduction to information systems: the IS profession; hardware, software, and programming; web and database applications; data analysis tools.
Prerequisite: CIS 200, may be taken concurrently.
Registration Information: Credit not allowed for both CIS 210 and CIS 120.
Terms Offered: Fall, Spring, Summer.
Grade Mode: Traditional.
Special Course Fee: No.

CIS 240 Application Design and Development Credits: 3 (3-0-0)
Course Description: Software engineering methods including design, implementation, and testing using structured and event-driven techniques, logic, and data structures.
Prerequisite: CIS 210.
Registration Information: Sections may be offered: Online.
Terms Offered: Fall, Spring, Summer.
Grade Modes: S/U within Student Option, Trad within Student Option.
Special Course Fee: No.

CIS 301 End User Computing Credits: 3 (3-0-0)
Course Description: End user applications in a Graphical User Interface environment including spreadsheet, word processing, and presentation graphics; Internet concepts.
Prerequisite: None.
Registration Information: Sections may be offered: Online.
Terms Offered: Fall, Spring, Summer.
Grade Modes: S/U within Student Option, Trad within Student Option.
Special Course Fee: No.

CIS 320 Project Management for Information Systems Credits: 3 (3-0-0)
Course Description: Project management concepts including work breakdown structure, estimating, scheduling, tools, and reports.
Prerequisite: CIS 210.
Terms Offered: Fall, Spring.
Grade Mode: Traditional.
Special Course Fee: No.

CIS 340 Advanced Application Design and Development Credits: 3 (3-0-0)
Course Description: Design and construction of business applications using object-orientation and advanced data structures.
Prerequisite: CIS 240.
Registration Information: Credit not allowed for both CIS 340 and CIS 220.
Terms Offered: Fall, Spring.
Grade Mode: Traditional.
Special Course Fee: No.
CIS 350  Operating Systems and Networks  Credits: 3 (3-0-0)
Course Description: Multiuser and network operating systems; basic networking concepts including security, transmission, performance, and topologies.
Prerequisite: CIS 210.
Terms Offered: Fall, Spring.
Grade Mode: Traditional.
Special Course Fee: No.

CIS 355  Business Database Systems  Credits: 3 (3-0-0)
Course Description: Physical and logical design, implementation, and administration of databases.
Prerequisite: CIS 210.
Registration Information: Sections may be offered: Online.
Terms Offered: Fall, Spring.
Grade Mode: Traditional.
Special Course Fee: No.

CIS 360  Systems Analysis and Design  Credits: 3 (3-0-0)
Course Description: Traditional and cutting-edge systems analysis and design techniques, with emphasis on object-oriented approaches.
Prerequisite: CIS 240.
Terms Offered: Fall, Spring.
Grade Mode: Traditional.
Special Course Fee: No.

CIS 370  Business Intelligence  Credits: 3 (3-0-0)
Course Description: Techniques and technologies for deriving business value from the integration, mining, and transformation of data.
Prerequisite: CIS 200 and MKT 300.
Term Offered: Summer.
Grade Mode: Traditional.
Special Course Fee: No.

CIS 410  Web Application Development  Credits: 3 (3-0-0)
Course Description: Web development techniques and strategies including Active Server Pages using VBScript, JavaScript, ColdFusion; security, web design.
Prerequisite: CIS 355 and CIS 240.
Term Offered: Fall.
Grade Mode: Traditional.
Special Course Fee: No.

CIS 411  Enterprise Resource Planning Systems  Credits: 3 (3-0-0)
Course Description: Introduction to enterprise resource planning (ERP) systems concepts, business processes impacted by ERP, systems and software integration.
Prerequisite: (ACT 220) and (FIN 300 or FIN 305) and (MGT 305 or MGT 320) and (MKT 300 or MKT 305).
Term Offered: Spring.
Grade Mode: Traditional.
Special Course Fee: No.

CIS 413  Advanced Networking and Security  Credits: 3 (3-0-0)
Course Description: Modern communication standards, protocol systems; network security, security policies, attack and protection mechanisms, legal and ethical issues.
Prerequisite: CIS 240 and CIS 350.
Registration Information: Sections may be offered: Online.
Term Offered: Fall.
Grade Modes: S/U within Student Option, Trad within Student Option.
Special Course Fee: No.

CIS 445  Advanced Database Management  Credits: 3 (3-0-0)
Course Description: Advanced data management topics including performance tuning, concurrency control, security, object-oriented databases, and data warehousing.
Prerequisite: CIS 355.
Term Offered: Spring.
Grade Mode: Instructor Option.
Special Course Fee: No.

CIS 487  Internship  Credits: 3 (0-9-0)
Course Description: Supervised and planned work experience paralleling concentration in industry.
Prerequisite: CIS 355 and CIS 360.
Terms Offered: Fall, Spring, Summer.
Grade Mode: Instructor Option.
Special Course Fee: No.

CIS 492  Seminar  Credits: 3 (3-0-0)
Course Description: Current topics in computer-based information systems.
Prerequisite: None.
Term Offered: Spring.
Grade Mode: Instructor Option.
Special Course Fee: No.

CIS 495  Independent Study  Credits: Var[1-18] (0-0-0)
Course Description: Prerequisite: None.
Terms Offered: Fall, Spring, Summer.
Grade Mode: Instructor Option.
Special Course Fee: No.

CIS 496B  Group Study: Small Business Information Systems  Credits: Var[1-18] (0-0-0)
Course Description: Prerequisite: None.
Terms Offered: Fall, Spring, Summer.
Grade Mode: Instructor Option.
Special Course Fee: No.

CIS 496C  Group Study: Communications and Distributed Systems  Credits: Var[1-18] (0-0-0)
Course Description: Prerequisite: None.
Terms Offered: Fall, Spring, Summer.
Grade Mode: Instructor Option.
Special Course Fee: No.

CIS 496D  Group Study: Information Systems Performance Measurement  Credits: Var[1-18] (0-0-0)
Course Description: Prerequisite: None.
Terms Offered: Fall, Spring, Summer.
Grade Mode: Instructor Option.
Special Course Fee: No.

CIS 496E  Group Study: Current Issues in Business Computing Systems  Credits: Var[1-18] (0-0-0)
Course Description: Prerequisite: None.
Terms Offered: Fall, Spring, Summer.
Grade Mode: Instructor Option.
Special Course Fee: No.
CIS 498  Research  Credits: Var[1-3] (0-0-0)

Course Description:

Prerequisite: None.

Terms Offered: Fall, Spring, Summer.

Grade Mode: Instructor Option.

Special Course Fee: No.

CIS 570  Business Intelligence  Credits: 3 (3-0-0)

Course Description: Harnessing vast data stores to solve problems, enhance decision-making, discover new business opportunities, and to derive additional benefits.

Prerequisite: None.

Registration Information: Admission to the M.B.A., M.C.I.S., M.S.B.A., or M.E. program. Sections may be offered: Online.

Terms Offered: Fall, Spring, Summer.

Grade Mode: Traditional.

Special Course Fee: No.

CIS 575  Applied Data Mining and Analytics in Business  Credits: 3 (3-0-0)

Course Description: Data mining is a process of selecting, exploring and modeling large amounts of data to identify patterns and relationships among key variables.

Prerequisite: STAT 204.

Registration Information: Sections may be offered: Online.

Terms Offered: Fall, Spring, Summer.

Grade Mode: Traditional.

Special Course Fee: No.

CIS 576  Business Data Visualization  Credits: 3 (3-0-0)

Course Description: Methods to solve data visualization problems; critique and evaluate current systems; develop skills in the construction of data visualization.

Prerequisite: CIS 575 or CIS 605.

Registration Information: Sections may be offered: Online.

Term Offered: Spring.

Grade Mode: Traditional.

Special Course Fee: No.

CIS 600  Information Technology and Project Management  Credits: 3 (3-0-0)

Course Description: Strategic role in and management of information technology and software development projects.

Prerequisite: None.

Restriction: Must be a: Graduate, Professional.

Registration Information: Admission to the M.B.A., M.C.I.S., M.S.B.A., or M.E. program. Sections may be offered: Online.

Terms Offered: Fall, Spring, Summer.

Grade Mode: Traditional.

Special Course Fee: No.

CIS 605  Business Visual Application Development  Credits: 3 (3-0-0)

Course Description: Design, construction, and testing of business application systems including leading-edge visual, E-commerce languages, and tools.

Prerequisite: None.

Restriction: Must be a: Graduate, Professional.

Registration Information: Admission to the M.B.A., M.C.I.S., M.S.B.A., or M.E. program. Sections may be offered: Online.

Term Offered: Fall.

Grade Mode: Traditional.

Special Course Fee: No.

CIS 606  Application Software Infrastructure  Credits: 3 (3-0-0)

Course Description: Design, construction, and testing of business application software infrastructure including hardware, operating software, and communications network.

Prerequisite: None.

Restriction: Must be a: Graduate, Professional.

Registration Information: Admission to the M.B.A., M.C.I.S., M.S.B.A., or M.E. program. Sections may be offered: Online.

Term Offered: Fall.

Grade Mode: Traditional.

Special Course Fee: No.

CIS 610  Software Development Methodology  Credits: 3 (3-0-0)

Course Description: Methods for all phases of software development focusing upon the establishment of economical software that is reliable and cross platform.

Prerequisite: None.

Restriction: Must be a: Graduate, Professional.

Registration Information: Admission to the M.B.A., M.C.I.S., M.S.B.A., or M.E. program. Sections may be offered: Online.

Term Offered: Fall, Spring, Summer.

Grade Mode: Traditional.

Special Course Fee: No.

CIS 611  Object-Oriented Systems  Credits: 3 (3-0-0)

Course Description: Object-oriented and web-based software; object model describing classes; relationships to other objects, attributes, and operations.

Prerequisite: CIS 610.

Restriction: Must be a: Graduate, Professional.

Registration Information: Admission to the M.B.A., M.C.I.S., M.S.B.A., or M.E. program. Sections may be offered: Online.

Term Offered: Spring.

Grade Mode: Traditional.

Special Course Fee: No.

CIS 620  IT Communications Infrastructure  Credits: 3 (3-0-0)

Course Description: Technical aspects of information communications, business considerations; wireless technology, architecture, and applications.

Prerequisite: CIS 606.

Restriction: Must be a: Graduate, Professional.

Registration Information: Admission to the M.B.A., M.C.I.S., M.S.B.A., or M.E. program. Sections may be offered: Online.

Term Offered: Spring.

Grade Mode: Traditional.

Special Course Fee: No.
CIS 623  Cybersecurity Credits: 3 (3-0-0)
Course Description: Detailed examination of modern security topics, blending coverage of many of the domains of the CISSP with those of the CEH: Access Control, Network Security, Risk Management, Software Development Security, Cryptography, Architecture, Operations, Business Continuity, Legal/Ethical issues, as well as attack, defense and countermeasure mechanisms.
Prerequisite: CIS 620.
Restriction: Must be a: Graduate, Professional.
Registration Information: Graduate standing. Sections may be offered: Online.
Terms Offered: Fall, Spring, Summer.
Grade Mode: Traditional.
Special Course Fee: No.

CIS 655  Business Database Systems Credits: 3 (3-0-0)
Course Description: Database analysis, design, administration; data modeling; data sublanguages, query facilities; distributed database systems.
Prerequisite: CIS 605.
Restriction: Must be a: Graduate, Professional.
Registration Information: Admission to the M.B.A., M.C.I.S., M.S.B.A., or M.E. program. Sections may be offered: Online.
Term Offered: Spring.
Grade Mode: Traditional.
Special Course Fee: No.

CIS 665  E-Business Application Technologies Credits: 3 (3-0-0)
Course Description: Developing E-business (B2B and B2C) through construction and deployment.
Prerequisite: CIS 605 and CIS 606 and CIS 610.
Restriction: Must be a: Graduate, Professional.
Registration Information: Admission to the M.B.A., M.C.I.S., M.S.B.A., or M.E. program. Sections may be offered: Online.
Term Offered: Spring.
Grade Mode: Traditional.
Special Course Fee: No.

CIS 670  Advanced IT Project Management Credits: 3 (3-0-0)
Course Description: Advanced tools, techniques and skills for advanced risk management, change movement, and performance/control measures in cross-functional projects.
Prerequisite: CIS 600.
Restriction: Must be a: Graduate, Professional.
Registration Information: Sections may be offered: Online.
Terms Offered: Fall, Spring, Summer.
Grade Mode: Instructor Option.
Special Course Fee: No.

CIS 675  Agile Management and Product Development Credits: 3 (3-0-0)
Course Description: Business model process optimization; managing rapid product development; incorporating constituent feedback throughout the product life cycle.
Prerequisite: CIS 600.
Restriction: Must be a: Graduate, Professional.
Registration Information: Sections may be offered: Online.
Term Offered: Fall.
Grade Mode: Traditional.
Special Course Fee: No.

CIS 676  Information Technology Management Credits: 3 (3-0-0)
Course Description: Strategic information technology management of business, technical, system and information services.
Prerequisite: None.
Restriction: Must be a: Graduate, Professional.
Registration Information: Admission to graduate program in business. Sections may be offered: Online.
Term Offered: Spring.
Grade Mode: Traditional.
Special Course Fee: No.

CIS 695  Independent Study Credits: Var[1-18] (0-0-0)
Course Description:
Prerequisite: None.
Restriction: Must be a: Graduate, Professional.
Terms Offered: Fall, Spring.
Grade Mode: Instructor Option.
Special Course Fee: No.

CIS 696  Group Study Credits: Var[1-18] (0-0-0)
Course Description:
Prerequisite: None.
Restriction: Must be a: Graduate, Professional.
Terms Offered: Fall, Spring.
Grade Mode: Instructor Option.
Special Course Fee: No.

CIS 699  Thesis Credits: Var[1-18] (0-0-0)
Course Description:
Prerequisite: None.
Restriction: Must be a: Graduate, Professional.
Terms Offered: Fall, Spring, Summer.
Grade Mode: Instructor Option.
Special Course Fee: No.