

IT ELECTIVES LIST—by Department

BS in Business Information Technology

Students may choose any content combination of the courses below to fulfill their IT elective requirements. IT-related courses other than those listed below may be approved through consultation with the student's academic advisor and permission of the Department Chairperson. Students are responsible to meet any prerequisites. Prerequisites are listed in parentheses next to each class, but please check the current course catalog to ensure that they have not changed.

BIOENGINEERING (BIOE)

- 216 Geographic Information Systems

BUSINESS EDUCATION (BUED)

- 239 Computer-Mediated Comm (C ENGL 100/101)
- 424 E-Commerce Design & Implementation

COMPUTER SCIENCE (COMP)

- 170 Intro to Web Engineering
- 267 Data Base Design (COMP 280)
- 280 Data Structures (GEEN 163)
- 320 Fundamentals of Info Assurance (COMP 280)
- 321 Computer System Security (COMP 285)
- 322 Internet Systems (COMP 280)
- 323 Intro to Health Care Info Systems (JR status)
- 340 Game Intelligence (COMP 280)
- 356 Comp Hip-Hop & Object-Oriented Design (GEEN163)
- 360 Programming Languages (COMP 285)
- 363 Object-Oriented Programming (COMP 280)
- 365 Program Methodologies & Concepts (COMP 285)
- 368 Object-Oriented Software Development (COMP 280)
- 390 Social Implications of Computing*
- 420 Applied Network Security (COMP 285)
- 421 Security Mgmt for Info Systems (COMP 285)
- 440 Game Design (COMP 340)
- 445 Intro to Artificial Intelligence
- 468 Intro to Data Mining (COMP 280)
- 469 Intro to Parallel Programming (COMP 350)
- 476 Networked Computer Systems (COMP 280)

HISTORY (HIST)

- 220 History of Science & Technology
- 350 Historical Research & Computer Tech (HIST 250)

JOURNALISM & MASS COMMUNICATION (JOMC)

- 102 Inter Com in the Digital World
- 203 Social Media (offered online in the summer)

COMPUTER SYSTEMS TECHNOLOGY (CST)

- 120 Fundamentals of Technology
- 130 Intro to Unix Linux
- CST 140 (150 lab optional, but recommended)
- 225 Computer Database Mgmt I (CST 140/150)
- 231 Web Systems (Soph status)
- 240 Applied Java Programming (CST 201)
- 285 Economic & Social Impact of Info Technology*
- 300 Intro to Project Mgmt for IT Professionals
- 305 Foundations of Storage Technology
- 306 Big Data Analytics (CST 140)
- 315 Network Security Apps for IT Professionals
- 316 Info Security (CST 315)
- 317 Human Computer Interaction (JR or SR status)
- 325 Computer Database Mgmt (CST 225)
- 326 Database Security (CST 325)
- 329 Computer Networking I & CST 339 Lab
- 330 Computer Networking II
- 340 Intro to Mainframe Operations (CST 140)
- 346 Intermed Enterprise Systems Operations (CST 340)
- 347 Advanced Enterprise Systems Operations (CST 346)
- 357 Network Servers (CST 340)
- 405 Cloud Infrastructure & Service Models
- 406 Backup Recovery Systems & Architecture (CST 405)
- 425 Data Warehousing (CST 325)
- 426 Actionable Knowledge Mining (CST 325)
- 430 Linux Systems Administration (CST 130)
- 433 Intro to High Performance Computing
- 434 High Performance Comp Architect Sys Admn
- 435 Intro to Parallel Processing (CST 433)
- 448 Advanced Networking Security Applications (CST 315)
- 460 System Integration & Architecture (SR status)
- 465 Wireless Geo-Location Systems

ENGLISH (ENGL)

- 331 Writing for Science & Technology (ENGL 101)
- 413 Feature Writing & Editing for Technical Journals Magazines & Trade Publications (ENGL 101)
- 414 Designing & Testing User Documents for Scientific & Technical (ENGL 101)

GRAPHIC COMMUNICATION SYSTEMS (GCS)

- 211 Evolution & Social Implications of Tech*
- 281 Graphic Comm Design Foundations (TECH 103)
- 285 Digital Image Editing (GCS 281)
- 380 Game Technology & Design (GCS 281)
- 381 Web Design (GCS 281)
- 382 Multimedia & Videography (GCS 281)
- 386 Web Design II (GCS 281)
- 387 Multimedia & Videography II GCS 382)
- 421 Graphic Comm Design & Mgmt (GCS 343)
- 423 Graphic Comm Design & Mgmt II (GCS 421/481 or 422)
- 424 Intro to Geographic Info Systems
- 425 Intermedia Geographic Info Systems (GCS 424)
- 426 Graphic Animation (GCS 281)
- 480 Web Design III (GCS 386)
- 481 Game Technology & Design II (GCS 380)

LIBERAL STUDIES (LIBS)

- 306 Gender & Technology
- 308 Historical Social & Cultural Perspectives of Tech*

MGMT INFO SYSTEMS (MGMT)

- 232 Bus Analysis for Bus Decision Making (MGMT132)
- 234 Informatics Programming & Apps (MGMT 132)
- 310 Business Analytics (ECON 206)
- 333 Object-Oriented Analysis & Design (MGMT 234)
- 337 Bus Process & Systems Analysis (MGMT132/234)
- 432 Business Intelligence Apps (MGMT132/ECON 206)
- 434 Database & Knowledge Mgmt (MGMT 132)
- 436 Strategic IT Service Mgmt (MGMT 337 & 434)

POLITICAL SCIENCE (POLI)

- 362 Public Policy & Technology

PSYCHOLOGY (PSYC)

- 447 Special & Contemporary Topics in Behavioral Data Analytics (PSYC 250 & 251 or 252)

APPLICATIONS

GEOGRAPHIC INFO SYSTEMS:

- BIOE 216 Geographic Info Systems
- CST 465 Wireless Geo-Location Systems
- GCS 424 Intro to Geographic Info Systems
- GCS 425 Intermedia Geographic Info Systems (GCS 424)

GAMING:

- COMP 340 Game Intelligence (COMP 280)
- COMP 440 Game Design (COMP 340)
- GCS 380 Game Technology & Design (GCS 281)
- GCS 481 Game Technology & Design II (GCS 380)

MULTIMEDIA:

- GCS 281 Graphic Comm Design Foundations (TECH 103)
- GCS 285 Digital Image Editing (GCS 281)
- GCS 382 Multimedia & Videography (GCS 281)
- GCS 387 Multimedia & Videography II (GCS 382)
- GCS 421 Graphic Comm Design & Mgmt (GCS 343)
- GCS 423 Graphic Comm Design & Mgmt II (GCS 421/481 or 422)
- GCS 426 Graphic Animation (GCS 281)

OTHER:

- COMP 323 Intro to Health Care Info Systems (JR status)
- MGMT 432 Bus Intelligence Appl (MGMT 132, ECON 206)

COMMUNICATION

- BUED 239 Computer-Mediated Comm (C in ENGL 100/101)
- ENGL 331 Writing for Science & Technology (ENGL 101)
- ENGL 413 Feature Writing & Editing for Technical Journals Magazines & Trade Publications (ENGL 101)
- ENGL 414 Designing & Testing User Documents for Scientific & Technical (ENGL 101)
- ENGL 415 Practicum for Technical & Scientific Communicators (ENGL 101)
- JOMC 203 Social Media (offered online in summer)

DATABASES & ANALYTICS

- COMP 267 Data Base Design (COMP 280)
- COMP 468 Intro to Data Mining (COMP 280)
- CST 225 Computer Database Mgmt I (CST 140/150)
- CST 306 Big Data Analytics (CST 140)
- CST 325 Computer Database Mgmt (CST 225)

- CST 326 Database Security (CST 325)
- CST 425 Data Warehousing (CST 325)
- CST 426 Actionable Knowledge Mining (CST 325)
- MGMT 310 Business Analytics (ECON 206)
- MGMT 434 Database & Knowledge Mgmt (MGMT 132)
- PSYC 447 Special & Contemporary Topics in Behavioral Data Analytics (PSYC 250 & 251 or 252)

NETWORKING & SECURITY

- COMP 476 Networked Computer Systems (COMP 280)
- CST 329 Computer Networking I & CST 339 Lab
- CST 330 Computer Networking II
- CST 357 Network Servers (CST 340)
- CST 405 Cloud Infrastructure & Service Models
- CST 448 Advanced Networking Security Appl (CST 315)
- COMP 320 Fundamentals of Info Assurance (COMP 280)
- COMP 321 Computer System Security (COMP 285)
- COMP 420 Applied Network Security (COMP 285)
- COMP 421 Security Mgmt for Info Systems (COMP 285)
- CST 315 Network Security Apps for IT Professionals
- CST 316 Info Security (CST 315)

POLICY & IMPLICATIONS

- HIST 220 History of Science & Technology
- JOMC 102 Inter Com in the Digital World
- LIBS 306 Gender & Technology
- POLI 362 Public Policy & Technology
- COMP 390 Social Implications of Computing*
- CST 285 Economic & Social Impact of Info Technology*
- GCS 211 Evolution & Social Implications of Tech*
- LIBS 308 Hist, Social & Cultural Perspectives of Tech*

PROGRAMMING

- CST 140 (150 lab optional, but recommended)
- COMP 360 Programming Languages (COMP 285)
- COMP 363 Object-Oriented Programming (COMP 280)
- COMP 365 Program Methods & Concepts (COMP 285)
- COMP 368 Object-Oriented Software Dev (COMP 280)
- CST 240 Applied Java Programming (CST 201)
- MGMT 234 Informatics Progr & Appl (MGMT 132)

SYSTEMS ANALYSIS & MGMT

- COMP 356 Comp Hip-Hop & Object-Oriented Design (GEEN 163)
- CST 300 Intro to Project Mgmt for IT Professionals
- MGMT 232 Bus Analysis for Decision Making (MGMT 132)
- MGMT 333 Object-Oriented Analysis & Design (MGMT 234)
- MGMT 337 Bus Process & Systems Analysis (MGMT 132/234)
- MGMT 436 Strategic IT Service Mgmt (MGMT 337/434)

SYSTEMS

- COMP 170 Intro to Web Engineering
- COMP 280 Data Structures
- COMP 445 Intro to Artificial Intelligence
- COMP 469 Intro to Parallel Programming (COMP 350)
- CST 130 Intro to Unix Linux
- CST 305 Foundations of Storage Technology
- CST 340 Intro to Mainframe Operations (CST 140)
- CST 346 Intermediate Enterprise Systems Ops (CST 340)
- CST 347 Advanced Enterprise Systems Ops (CST 346)
- CST 406 Backup Recovery Syst & Architecture (CST 405)
- CST 430 Linux Systems Administration (CST 130)
- CST 433 Intro to High Performance Computing
- CST 434 High Performance Comp Architect Sys Admn
- CST 435 Intro to Parallel Processing (CST 433)
- CST 460 System Integration & Architecture (SR status)

WEB SYSTEMS & DESIGN

- BUED 424 E-Commerce Design & Implementation
- COMP 322 Internet Systems (COMP 280)
- CST 231 Web Systems (Soph status)
- GCS 381 Web Design (GCS 281)
- GCS 386 Web Design II (GCS 281)
- GCS 480 Web Design III (GCS 386)

OTHER

- CST 120 Fundamentals of Technology
- CST 317 Human Computer Interaction (JR or SR status)
- HIST 350 Historical Research & Computer Tech (HIST 250)