

# Academics

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Courses

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# Course Index

# W SCHOOL OF ENGINEERING

CIVIL ENGINEERING

- <u>C E 101: Introduction to Civil Engineering I</u>
- <u>C E 102</u>: Introduction to Civil Engineering II
- <u>C E 205: Civil Engineering Laboratory I</u>
- <u>C E 207: Surveying</u>
- <u>C E 208: Civil Engineering Graphics I</u>
- <u>C E 305: Civil Engineering Laboratory II</u>
- <u>C E 310: Introduction to Structural Mechanics</u>
- <u>C E 311: Structural Analysis</u>
- <u>C E 315: Civil Engineering Materials</u>
- <u>C E 325: Intermediate Mechanics</u>
- <u>C E 401: Civil Engineering Fundamentals</u>
- <u>C E 405: Civil Engineering Laboratory III</u>
- <u>C E 412: Design of Concrete Structures</u>





- <u>C E 413: Steel Design</u>
- <u>C E 414: Advanced Concrete Design</u>
- <u>C E 416: Bridge Engineering</u>
- <u>C E 417: Construction Engineering and Management</u>
- <u>C E 421: Matrix Analysis of Structures</u>
- <u>C E 431: Soil Mechanics I</u>
- <u>C E 433: Foundation Engineering</u>
- <u>C E 435: Advanced Geotechnical Engineering</u>
- <u>C E 452: Civil Engineering Analysis</u>
- <u>C E 455: Civil Engineering Design I</u>
- C E 456: Civil Engineering Design II
- <u>C E 471: Environmental Engineering I</u>
- C E 472: Water Resources Engineering
- <u>C E 481: Transportation Engineering I</u>
- C E 495: Geospatial Analysis for Engr & Vis Apps
- <u>C E 497: Civil Engineering Projects</u>
- <u>C E 511: Structural Dynamics</u>
- <u>C E 513: Advanced Steel Design</u>
- <u>C E 514: Pre-Stressed Concrete Design</u>
- <u>C E 521: Advanced Mechanics of Materials</u>
- C E 531: Soil Mechanics II
- C E 541: Flow in Open Channels
- <u>C E 542: Flow in Porous Media</u>
- C E 543: Sediment Transport
- <u>C E 561: Civil Engineering Systems</u>
- C E 570: Infrastructure Management
- <u>C E 572: Stormwater Engineering and Management</u>
- C E 581: Transportation Engineering II
- C E 585: Highway Pavements
- <u>C E 590: Airport Planning and Design</u>

## SCHOOL OF ENGINEERING

- <u>C OP 201: CO-OP Work Experience</u>
- <u>C OP 202: CO-OP Work Experience</u>
- <u>C OP 300: Cooperative Education</u>
- <u>C OP 301: CO-OP Work Experience</u>
- <u>C OP 302: CO-OP Work Experience</u>
- <u>C OP 401: CO-OP Work Experience</u>
- <u>C OP 402: CO-OP Work Experience</u>
- <u>C OP 501: CO-OP Work Experience</u>
- C OP 502: CO-OP Work Experience
- <u>C OP 503: CO-OP Work Experience</u>

#### **GRADUATE SCHOOL**

<u>C&H Thesis: UM Croft and Honors Thesis</u>

#### SCHOOL OF PHARMACY PHARMACY PRACTICE

<u>Card 591: Cardiology Clerkship</u>

#### SCHOOL OF ENGINEERING CHEMICAL ENGINEERING

- <u>Ch E 101: Introduction to Chemical Engineering</u>
- <u>Ch E 103: Introduction to Chemical Engineering I</u>
- <u>Ch E 104: Introduction to Chemical Engineering II</u>
- Ch E 251: Programming for Chemical Engineering
- Ch E 307: Chemical Process Principles I
- Ch E 308: Chemical Process Principles II
- Ch E 309: Intro to Chemical Engineering Design
- <u>Ch E 313: Modeling and Simulation I</u>





- <u>Ch E 314: Modeling and Simulation II</u>
- <u>Ch E 317: Process Fluid Dynamics and Heat Transfer</u>
- Ch E 330: Chemical Eng. R & D Experience
- <u>Ch E 345: Engineering Economy</u>
- Ch E 407: Chemical Engineering Projects I
- Ch E 408: Chemical Engineering Projects II
- Ch E 411: Chemical Engineering Seminar
- Ch E 412: Process Control and Safety
- Ch E 413: Chemical Process Safety
- Ch E 417: Separation Processes
- <u>Ch E 421: Chemical Engineering Thermodynamics</u>
- Ch E 423: Chemical Reactor Analysis and Design
- Ch E 431: ChE Mass and Energy Balance Lab
- Ch E 432: ChE Unit Operations Lab
- Ch E 433: ChE Design Lab
- <u>Ch E 445: Chemical Engineering Lab I</u>
- Ch E 446: Chemical Engineering Lab II
- Ch E 449: Process Design
- <u>Ch E 450: Process Optimization</u>
- Ch E 451: Plant Design I
- Ch E 452: Plant Design II
- <u>Ch E 460: Product Design I:Development, Evaluation</u>
- <u>Ch E 461: Product Design II: Product Realization</u>
- <u>Ch E 470: Principles of Lean Six Sigma</u>
- Ch E 511: Process Dynamics and Control
- Ch E 513: Special Topics in Chemical Engineering
- <u>Ch E 515: Research Seminar</u>
- <u>Ch E 520: Biochemical Engineering</u>
- <u>Ch E 521: Drug and Gene Delivery</u>
- <u>Ch E 522: Immunoengineering</u>
- Ch E 523: Molecular and Cellular Biophysics
- <u>Ch E 524: Microscopy for Engineers</u>
- <u>Ch E 528: Polymer Processing</u>
- Ch E 530: Coal Utilization and Pollutants Control
- Ch E 535: Experimental Methods in Engineering
- Ch E 540: Coating Materials Process & Applications
- Ch E 541: Appl of Chemical Instrumentation I
- Ch E 542: Appl of Chemical Instrumentation II
- Ch E 543: Introduction to Polymer Science
- Ch E 545: Colloid and Surface Science
- Ch E 547: Sufactant Science and Applications
- Ch E 550: Membrane Science and Engineering
- Ch E 560: Advanced Transport Phenomena I
- CHE 500. Advanced transport Prienomena 1
- <u>Ch E 561: Advanced Transport Phenomena II</u>
- <u>Ch E 593: Graduate Projects in Chemical Engr</u>

#### COLLEGE OF LIBERAL ARTS CHEMISTRY & BIOCHEMISTRY

- <u>Chem 101: Chemical Concepts</u>
- Chem 103: Survey of Chemistry I
- <u>Chem 104: Survey of Chemistry II</u>
- Chem 105: General Chemistry I
- Chem 106: General Chemistry II
- <u>Chem 107: Honors Recitation I</u>
- Chem 107: Honors Recitation II
- <u>Chem 108: Honors Recitation II</u>
- <u>Chem 113: Survey of Chemistry Laboratory I</u>
- <u>Chem 114: Survey of Chemistry Laboratory II</u>
- <u>Chem 115: General Chemistry Laboratory I</u>
- <u>Chem 116: General Chemistry Laboratory II</u>
- <u>Chem 121: Fundamentals of Organic Chemistry</u>





- <u>Chem 201: Environmental Chemistry I</u>
- <u>Chem 202: Environmental Chemistry II</u>
- <u>Chem 221: Elementary Organic Chemistry I</u>
- <u>Chem 222: Elementary Organic Chemistry II</u>
- <u>Chem 225: Elementary Organic Chem. Laboratory I</u>
- Chem 226: Elementary Organic Chem. Laboratory II
- Chem 251: Introduction to Individual Research
- <u>Chem 271: Biochemical Concepts</u>
- <u>Chem 293: Special Topics in Chemistry</u>
- Chem 314: Quantitative Analysis
- Chem 319: Chem & Phys Methods of Forensic Chem
- <u>Chem 331: Physical Chemistry I</u>
- <u>Chem 332: Physical Chemistry II</u>
- <u>Chem 334: Biophysical Chemistry</u>
- <u>Chem 337: Physical Chemistry Laboratory I</u>
- <u>Chem 351: Individual Research</u>
- <u>Chem 373: Intermediate Biochemistry</u>
- <u>Chem 381: Chemistry for Teachers I</u>
- <u>Chem 382: Chemistry for Teachers II</u>
- <u>Chem 383: Chemistry for Teachers III</u>
- <u>Chem 393: Advanced Special Topics in Chemistry</u>
- <u>Chem 401: Inorganic Chemistry</u>
- <u>Chem 402: Inorganic Chemistry Laboratory</u>
- <u>Chem 415: Computer Methods in Chemistry</u>
- <u>Chem 421: Recitation in Organic Chemistry I</u>
- <u>Chem 422: Recitation in Organic Chemistry II</u>
- <u>Chem 423: Organic Analysis</u>
- <u>Chem 441: Forensic Chemistry Senior Research</u>
- <u>Chem 459: Forensic Science Internship</u>
- <u>Chem 463: Senior Research and Discovery</u>
- <u>Chem 469: Introduction to Instrumental Analysis</u>
- <u>Chem 470: Forensic DNA Analysis</u>
- <u>Chem 471: Biochemistry I</u>
- <u>Chem 472: Biochemistry Laboratory</u>
- <u>Chem 473: Biochemistry II</u>
- <u>Chem 512: Advanced Instrumental Analysis</u>
- <u>Chem 513: Principles of Analytical Chemistry</u>
- <u>Chem 514: Fundamentals of Electrochemistry</u>
- <u>Chem 519: Chemical Separations</u>
- <u>Chem 524: Principles of Organic Chemistry</u>
- Chem 525: Organic Spectroscopy and Spectrometry
- <u>Chem 527: Adv. Organic Chem., Structure Mechanism</u>
- Chem 528: Adv. Organic Chem., Structure Synthesis
- Chem 529: Stereochemistry
- <u>Chem 530: Advanced Organic Synthesis</u>
- Chem 531: Advanced Physical Chem., Quantum Chem.
- <u>Chem 532: Chemical Thermodynamics</u>
- Chem 534: Physical Biochemistry
- <u>Chem 535: Principles of Physical Chemistry I</u>
- <u>Chem 536: Advanced Phys. Chem., Reaction Dynamics</u>
- <u>Chem 538: Principles of Physical Chemistry II</u>
- Chem 544: Chemical Applications of Group Theory
- <u>Chem 545: Chemical Literature</u>
- <u>Chem 546: Chem for High School Science Teacher I</u>
- Chem 547: Chem. for High School Science Teacher II
- Chem 548: Workshop-Middle School Science Teachers
- <u>Chem 550: Safety in the Chemical Laboratory</u>
- <u>Chem 554: Analytical Environmental Chemistry</u>
- <u>Chem 563: Applied Spectroscopy</u>





- <u>Chem 580: Molecular Biochemistry I</u>
- <u>Chem 581: Molecular Biochemistry II</u>
- <u>Chem 593: Advanced Special Topics in Chemistry</u>
- <u>Chem 617: Research Methodology in Chemistry I</u>
- <u>Chem 659: Masters Seminar</u>
- <u>Chem 697: Thesis</u>
- <u>Chem 700: Introduction to Graduate Research</u>
- <u>Chem 701: Advanced Inorganic Chemistry I</u>
- <u>Chem 702: Advanced Inorganic Chemistry II</u>
- <u>Chem 703: Inorganic Techniques</u>
- <u>Chem 705: Seminar in Chemistry</u>
- <u>Chem 715: Selected Topics in Analytical Chemistry</u>
- <u>Chem 717: Internship Seminar in College Chemistry</u>
- <u>Chem 718: Research Methodology in Chemistry II</u>
- <u>Chem 722: Organic Techniques</u>
- <u>Chem 725: Selected Topics in Organic Chemistry</u>
- <u>Chem 733: Selected Topics in Physical Chemistry</u>
- <u>Chem 741: Selected Topics in Inorganic Chemistry</u>
- <u>Chem 750: Area Seminars</u>
- <u>Chem 759: Doctoral Seminar</u>
- <u>Chem 761: Quantum Chemistry</u>
- <u>Chem 762: Theory of Molecular Structure</u>
- <u>Chem 765: Bioinorganic Chemistry</u>
- <u>Chem 771: Biochemistry I</u>
- <u>Chem 772: Biochemical Techniques</u>
- <u>Chem 773: Biochemistry II</u>
- <u>Chem 774: Selected Topics in Biochemistry</u>
- <u>Chem 776: Nucleic Acid Chemistry</u>
- <u>Chem 777: Protein Structure</u>
- <u>Chem 796: Doctoral Thesis</u>
- <u>Chem 797: Dissertation</u>

#### **MODERN LANGUAGES**

- Chin 101: Elementary Chinese I
- Chin 102: Elementary Chinese II
- Chin 111: Intensive Chinese I
- Chin 112: Intensive Chinese II
- <u>Chin 198: Elementary Chinese Study Abroad</u>
- <u>Chin 199: Special Topics in Chinese</u>
- Chin 201: Intermediate Chinese I
- Chin 202: Intermediate Chinese II
- Chin 211: Intensive Chinese III
- Chin 212: Intensive Chinese IV
- Chin 215: Chinese Practicum I
- Chin 298: Intermediate Chinese Study Abroad
- Chin 299: Special Topics in Chinese
- Chin 301: Conversation and Composition I
- Chin 302: Conversation and Composition II
- Chin 313: Media Chinese I: Newspapers and Internet
- Chin 314: Media Chinese II: Broadcast News
- Chin 315: Chinese Practicum II
- Chin 321: Chinese Culture and Civilization
- Chin 330: Introduction to Chinese Linguistics
- Chin 331: Intro to Chinese Lit & Literary Analysis
- Chin 361: China through Film and Literature
- Chin 398: Advanced Chinese Study Abroad
- <u>Chin 399: Special Topics in Chinese</u>
- <u>Chin 401: Advanced Chinese I</u>
- Chin 402: Advanced Chinese II
- Chin 410: Modern Chinese Literature





- <u>Chin 414: Selected Topics in Academic Chinese</u>
- <u>Chin 415: Chinese Practicum III</u>
- <u>Chin 417: Intro to Modern Chinese Literature</u>
- <u>Chin 418: Introduction to Classical Chinese</u>
- <u>Chin 450: Domain Knowledge</u>
- <u>Chin 511: Chinese Philology</u>
- <u>Chin 512: 21st Century China</u>
- <u>Chin 513: China and the World</u>
- <u>Chin 514: Classical Chinese Literature</u>
- <u>Chin 550: Advanced Domain Knowledge</u>
- <u>Chin 596: Chinese Capstone Academic Program</u>
- <u>Chin 598: Chinese Capstone Internship</u>

## **COLLEGE OF LIBERAL ARTS**

- <u>Cine 201: Cinema Survey I</u>
- <u>Cine 202: Cinema Survey II</u>
- <u>Cine 301: Special Topics in Cinema Production</u>
- <u>Cine 302: Special Topics in Cinema Post-Production</u>
- <u>Cine 396: Festival Programming</u>
- Cine 397: Internship in Cinema
- <u>Cine 398: Study Abroad in Cinema</u>
- <u>Cine 399: Special Topics in Cinema</u>

#### SCHOOL OF APPLIED SCIENCES LEGAL STUDIES

- <u>CJ 100: Introduction to Criminal Justice</u>
- <u>CJ 110: Introduction to Law Enforcement</u>
- CJ 115: Introduction to Homeland Security
- <u>CJ 120: Introduction to Corrections</u>
- <u>CJ 155: Law Enforcement Tactical Operations</u>
- <u>CJ 160: Law Enforcement Patrol Procedures</u>
- CJ 202: Statistics in Criminal Justice
- <u>CJ 210: Criminal Law</u>
- <u>CJ 230: Principles of Investigation</u>
- CJ 270: Juvenile Justice
- CJ 285: Foundations of Terrorism
- CJ 300: Ethics in Legal Studies
- CJ 310: Law Enforcement Process and Policy
- CJ 315: Drug Abuse Enforcement and Criminality
- CJ 320: Correctional Treatment Strategies
- CJ 322: Criminal Justice Communications
- CJ 324: Theories of Criminal Behavior
- CJ 325: Emergency Management and CJ
- CJ 330: Hate Crimes and Enforcement
- CJ 335: Military Justice and Law
- CJ 340: Homicide and Death Investigations
- <u>CJ 345: Cold Case Investigations</u>
- CJ 360: Independent Study
- CJ 370: Domestic Crimes and Family Law
- CJ 376: Elite Forces and Special Operations
- <u>CJ 390: Special Topics</u>
- CJ 399: Social Justice and Community Service
- <u>CJ 400: Homeland Security Operations</u>
- CJ 410: Criminal Procedure
- CJ 415: Forensic Science & Crime Scene Analysis
- CJ 420: Homeland Security Law
- CJ 421: Selected Topics in Criminal Justice II
- CJ 422: Probation, Parole & Community Correction
- CJ 425: Sex Crimes and Investigations
- CJ 435: Terrorism in the Twenty-First Century





- CJ 444: Law of Corrections
- <u>CJ 445: Comparative Criminal Justice Systems</u>
- <u>CJ 450: Criminal Justice Research</u>
- <u>CJ 460: The Correctional Experience</u>
- <u>CJ 465: Criminal Profiling and Serial Offenders</u>
- <u>CJ 470: Border Security</u>
- <u>CJ 490: Criminal Justice Internship</u>
- CJ 499: Colloquium in Criminal Justice
- <u>CJ 510: Emergency Management</u>
- CJ 585: Current Topics in Criminal Justice
- <u>CJ 600: Criminal Justice Administration</u>
- CJ 606: Ethics and Human Subjects Research
- <u>CJ 610: Homeland Security Operations</u>
- CJ 615: Transnational Organized Crime
- CJ 620: Criminal Justice in American Society
- CJ 621: Seminar in Law Enforcement
- CJ 622: Seminar in Courts & Sentencing
- <u>CJ 623: Seminar in Corrections</u>
- <u>CJ 624: Theories of Criminal Behavior</u>
- <u>CJ 625: Criminal Justice Theory</u>
- CJ 634: Emergency Response Mgmt Policy & Plannin
- <u>CJ 635: Criminal Justice Research Methods</u>
- CJ 640: Legal Issues in Criminal Justice
- CJ 642: Cybercrime and Cyber Security
- CJ 645: Criminal and Intelligence Analysis
- CJ 650: Terrorism and Homeland Security
- <u>CJ 651: Special Topics</u>
- <u>CJ 655: Criminal Justice Statistical Analysis</u>
- CJ 660: Operational and Staff Planning
- CJ 661: CJ Policy and Program Evaluation
- CJ 662: Emer Mgmt and Homeland Sec Policy Eval
- CJ 663: ST in CJ Stats & Research: Qualitative
- CJ 664: GIS and Crime Mapping Analysis
- CJ 665: Transportation and Border Security
- CJ 670: Intelligence and Homeland Security
- CJ 671: Communications for Criminal Justice Lead
- CJ 672: Conflict Resolution and Decision Making
- CJ 673: Criminal Justice Evidence-Based Decision
- CJ 674: Budgeting & Finance
- CJ 675: Topics in Judicial Administration
- CJ 676: Principles of Leadership
- CJ 678: Diversity and Inclusion
- CJ 679: Special Topics in Criminal Justice
- CJ 680: Personnel Management
- CJ 681: Law & Public Policy
- <u>CJ 685: Special Topics in Justice Studies</u>
- <u>CJ 690: Criminal Justice Practicum</u>
- CJ 693: Criminal Justice Capstone
- <u>CJ 695: Independent Study</u>
- <u>CJ 697: Thesis</u>
- CJ 701: Proseminar in CJ Policy Studies
- CJ 702: Advanced Criminal Justice Statistics
- CJ 703: Advanced Criminological Theory & Policy
- CJ 704: Advanced Criminal Justice Policy Studies

# COLLEGE OF LIBERAL ARTS

- <u>Clar 100: Preparatory Clarinet</u>
- <u>Clar 121: Freshman Clarinet I</u>
- <u>Clar 122: Freshman Clarinet II</u>





- Clar 221: Sophomore Clarinet I
- <u>Clar 222: Sophomore Clarinet II</u>
- Clar 241: Sophomore Clarinet Performance I
- Clar 242: Sophomore Clarinet Performance II
- <u>Clar 321: Junior Clarinet I</u>
- <u>Clar 322</u>: Junior Clarinet II
- <u>Clar 341: Junior Clarinet Performance I</u>
- Clar 342: Junior Clarinet Performance II
- <u>Clar 421: Senior Clarinet I</u>
- <u>Clar 422: Senior Clarinet II</u>
- <u>Clar 441: Senior Clarinet Performance I</u>
- <u>Clar 442: Senior Clarinet Performance II</u>
- <u>Clar 521: Advanced Clarinet I</u>
- <u>Clar 522: Advanced Clarinet II</u>
- <u>Clar 541: Advanced Clarinet Performance I</u>
- <u>Clar 542: Advanced Clarinet Performance II</u>
- <u>Clar 621: Graduate Clarinet I</u>
- <u>Clar 622: Graduate Clarinet II</u>
- <u>Clar 641: Graduate Clarinet Performance I</u>
- Clar 642: Graduate Clarinet Performance II

#### **CLASSICS**

- <u>Clc 100: Honors Introduction to Classics</u>
- <u>Clc 101: Introduction to Greek Civilization</u>
- <u>Clc 102: Introduction to Roman Civilization</u>
- <u>Clc 103: Women in Antiquity</u>
- <u>Clc 104: Sports in the Ancient World</u>
- <u>Clc 105: From Myth to Film</u>
- <u>Clc 106: Classical Mythology</u>
- <u>Clc 107: Ancient Cities</u>
- <u>Clc 201: Medical Terminology in Greek and Latin</u>
- Clc 283: History of Art: Ancient through Medieval
- <u>Clc 299: Service Learning in Classics</u>
- <u>Clc 303: Greek and Roman Tragedy</u>
- <u>Clc 304: Greek and Roman Comedy</u>
- Clc 305: Topics in Classical Mythology
- Clc 307: Greek Literature in English Translation
- <u>Clc 308: Survey of Roman Literature</u>
- <u>Clc 309: Greek and Roman Epic</u>
- <u>Clc 310: Socrates and Sophistry</u>
- <u>Clc 311: Greek History</u>
- <u>Clc 313: The Roman Republic</u>
- <u>Clc 314: The Roman Empire</u>
- Clc 315: Egyptian Art and Archaeology
- Cle 210: Droppe And Andrean Art 8 Arch
- <u>Clc 316: Bronze Age Aegean Art & Archaeology</u>
- <u>Clc 317: Etruscan Art and Archaeology</u>
- <u>Clc 318: Greek Vase Painting</u>
- <u>Clc 319: Greek Sculpture</u>
- <u>Clc 320: Greek Architecture</u>
- <u>Clc 321: Greek Art and Archaeology</u>
- <u>Clc 322: Roman Art and Archaeology</u>
- <u>Clc 323: Art & Archaeology of Pompeii</u>
- <u>Clc 325: Topics in Classical Civilization</u>
- <u>Clc 326: Topics in Classics Abroad</u>
- <u>Clc 327: Greek and Roman Religions</u>
- Clc 328: Ancient Art on Location
- <u>Clc 331: Science & Tech. in the Ancient World</u>
- <u>Clc 332: Ancient Warfare</u>
- Clc 333: Poetry and Politics at Rome
- Clc 340: The Golden Age of Athens





- Clc 341: Alexander the Great
- <u>Clc 342: Law and Life in Ancient Athens</u>
- <u>Clc 349: Archaeological Ethics Bowl Practicum</u>
- <u>Clc 350: Ancient Archaeological Field Session</u>
- <u>Clc 352: From Republic to Empire</u>
- <u>Clc 360: Ethics in Archaeology</u>
- <u>Clc 373: Cultures of the Bronze Age</u>
- <u>Clc 375: Digital Archaeology</u>
- <u>Clc 401: Internship in Classics</u>
- <u>Clc 415: Studying Ancient Artifacts</u>
- <u>Clc 490: Classics Capstone Seminar</u>
- <u>Clc 491: Classics Capstone Experience</u>
- <u>Clc 499: Classics Assessment Exam</u>
- <u>Clc 501: Topics in Greek History</u>
- <u>Clc 502: Topics in Roman History</u>
- Clc 503: Directed Research in Ancient Literature
- <u>Clc 504: Directed Research in Ancient Culture</u>
- <u>Clc 511: Introduction to Classical Scholarship</u>
- <u>Clc 523: Ancient Art</u>
- <u>Clc 601: Classical Athens</u>
- <u>Clc 602: The Age of Alexander</u>
- <u>Clc 606: Problems in Greek Vase Painting</u>
- <u>Clc 607: Problems in Greek Sculpture</u>
- Clc 608: Problems in Greek Architecture
- <u>Clc 611: Studies in Greek History</u>
- <u>Clc 612: Studies in Roman History</u>
- Clc 621: Greek Art and Archaeology
- <u>Clc 622: Roman Art and Archaeology</u>
- <u>Clc 691: Individual Study</u>
- <u>Clc 697: Thesis</u>

#### SCHOOL OF PHARMACY PHARMACY PRACTICE

<u>Comm 591: Community Pharmacy Clerkship</u>

### SCHOOL OF EDUCATION LEADERSHIP & COUNSELOR EDUCATION

- <u>Coun 307: Educational Psychology</u>
- <u>Coun 309: Psychology of Adolescence</u>
- Coun 333: Psychology of Human Growth and Developme
- <u>Coun 605: Research in Counseling</u>
- <u>Coun 610: Addictions</u>
- Coun 612: Foun. of Clin. Mental Health Counseling
- <u>Coun 621: Assessment in Counseling I</u>
- Coun 622: Assessment in Counseling II
- Coun 623: Individual Assessment I
- Coun 624: Individual Assessment II
- <u>Coun 625: Practicum in School Psychometry</u>
- Coun 626: Foundations of College Counseling
- Coun 627: College Stud. Deve. & College Counseling
- Coun 628: Issues & Interventions in College Couns.
- Coun 630: Foundations of School Counseling
- Coun 639: Intro to Professional Couns & Ethics
- Coun 643: Group Procedures
- <u>Coun 651: Individual Study</u>
- <u>Coun 660: Crisis Intervention</u>
- <u>Coun 661: School Counseling Practicum</u>
- Coun 663: Internship in School Counseling
- Coun 670: Psychological Consultation
- Coun 670: Multicultural Issues in Counseling





- Coun 672: Seminar: Issues and Ethics in Counseling
- <u>Coun 674: Diagnostic Systems in Counseling</u>
- <u>Coun 675: Advanced School Counseling</u>
- <u>Coun 676: Ldrshp, Advocacy, & Acctbility in SC</u>
- <u>Coun 680: Career Counseling</u>
- <u>Coun 682: Family Counseling</u>
- <u>Coun 683: Counseling Theory I</u>
- Coun 685: Org/Adm & Consultation: Comm. Counseling
- <u>Coun 686: Counsel/Child and Adolescents</u>
- Coun 688: Org/Adm & Consultation: School Counselin
- <u>Coun 690: Counseling Skills</u>
- <u>Coun 691: Pre-Practicum and Advanced Skills</u>
- <u>Coun 692: Topics in Counseling I</u>
- <u>Coun 693: Practicum in Counseling</u>
- <u>Coun 694: Topics in Counseling II</u>
- <u>Coun 695: Internship</u>
- Coun 696: Topics in Counseling III
- <u>Coun 697: Thesis</u>
- Coun 700: Advanced Topics in Counselor Education
- <u>Coun 712: Play Diagnosis and Assessment</u>
- Coun 730: Adv. Multicultural Counseling & Advocacy
- Coun 733: College Teaching in Counselor Education
- <u>Coun 740: Advanced Career Theory and Practice</u>
- Coun 750: Research & Publication in Counselor Ed
- <u>Coun 753: Supervision of Counseling Services</u>
- <u>Coun 754: Advanced Clinical Supervision</u>
- <u>Coun 760: Leadership, Program Eval & Accreditation</u>
- <u>Coun 764: Adv Assessment, Diagnosis and Treatment</u>
- <u>Coun 770: Introduction to Play Therapy</u>
- Coun 771: Expressive Arts w/ Children & Adolescent
- <u>Coun 772: Current Theories in Play Therapy</u>
- Coun 773: Application of Play Therapy in Schools
- Coun 774: Application of Play Therapy in MH
- <u>Coun 775: Psychopharmacology in Play Therapy</u>
- <u>Coun 776: Play Therapy Supervision</u>
- <u>Coun 777: Play Therapy in the Courtroom</u>
- <u>Coun 778: Play Therapy with Older Adults</u>
- <u>Coun 779: Child-parent Relationship Therapy</u>
- Coun 780: Play Therapy Practicum
- <u>Coun 784: Advanced Counseling Theory</u>
- Coun 785: Supervision Internship
- <u>Coun 787: Seminar in Special Problems</u>
- Coun 790: Doctoral Teaching Internship in Coun. Ed
- <u>Coun 793: Advanced Practicum</u>
- <u>Coun 794: Advanced Group Counseling</u>
- <u>Coun 795: Internship</u>
- <u>Coun 796: Graded Dissertation</u>
- <u>Coun 797: Dissertation</u>
- <u>Coun 798: Transitioning into the Professoriate</u>

## SCHOOL OF ENGINEERING ELECTRICAL ENGINEERING

- <u>Cp E 421: Embedded Systems Design</u>
- <u>Cp E 431: Computer Architecture</u>
- <u>Cp E 432: Testing of Computing Systems</u>
- Cp E 461: Senior Design in Computer Engineering I
- Cp E 462: Senior Design in Computer Engineering II

# SCHOOL OF APPLIED SCIENCES





#### **LEGAL STUDIES**

<u>CR 412: Judicial Reporting Procedures</u>

#### SCHOOL OF PHARMACY PHARMACY PRACTICE

Crit 591: Critical Care Clerkship

# **COLLEGE OF LIBERAL ARTS**

INTERNATIONAL STUDIES

## <u>Croft Thesis: UM Croft Thesis</u>

#### SCHOOL OF ENGINEERING COMPUTER & INFORMATION SCIENCE

- <u>Csci 103: Survey of Computing</u>
- <u>Csci 111: Computer Science I</u>
- <u>Csci 112: Computer Science II</u>
- <u>Csci 191: Office Applications</u>
- <u>Csci 192: Computing Applications</u>
- <u>Csci 193: Personal Computer Systems</u>
- <u>Csci 203: Introduction to Computational Media</u>
- <u>Csci 211: Computer Science III</u>
- <u>Csci 223: Computer Org. & Assembly Language</u>
- Csci 251: Programming for Engineering and Sciences
- <u>Csci 256: Programming in Python</u>
- <u>Csci 259: Programming in C++</u>
- <u>Csci 300: Social Responsibility in Comp. Science</u>
- <u>Csci 305: Software for Global Use</u>
- <u>Csci 311: Models of Computation</u>
- <u>Csci 323: Systems of Programming</u>
- <u>Csci 325: Foundations of Computer Security</u>
- Csci 333: Digital Design and 3-D Printing
- Csci 343: Fundamentals of Data Science
- Csci 345: Information Storage and Retrieval
- Csci 353: Introduction to Numerical Methods
- <u>Csci 354: Web Programming</u>
- <u>Csci 356: Data Structures in Python</u>
- <u>Csci 361: Introduction to Computer Networks</u>
- Csci 387: Software Design and Development
- Csci 390: Special Topics in Programming
- Csci 391: Computer Graphics
- Csci 405: Computer Simulation
- Csci 423: Introduction to Operating Systems
- Csci 425: Code Generation and Optimization
- <u>Csci 426: System Security</u>
- <u>Csci 427: Fundamentals of Computer Security</u>
- <u>Csci 431: Robotics Programming</u>
- <u>Csci 433: Algorithm and Data Structure Analysis</u>
- <u>Csci 443: Advanced Data Science</u>
- <u>Csci 444: Information Visualization</u>
- <u>Csci 447: Immersive Media</u>
- <u>Csci 450: Organization of Programming Languages</u>
- <u>Csci 458: Mobile Application Development</u>
- <u>Csci 475: Introduction to Database Systems</u>
- <u>Csci 487: Senior Project</u>
- <u>Csci 490: Special Topics</u>
- <u>Csci 491: Special Topics in Computer Security</u>
- <u>Csci 492: Special Topics in Data Science</u>
- <u>Csci 495: Undergrad Computer Science Internship</u>
- <u>Csci 500: Fundamental Concepts in Computing</u>
- <u>Csci 501: Fundamental Concepts in Systems</u>





- <u>Csci 502: Fundamental Concepts in Algorithms</u>
- <u>Csci 503: Fundamental Concepts in Languages</u>
- <u>Csci 517: Natural Language Processing</u>
- Csci 520: Formal Theory of Computer Languages
- <u>Csci 521: Computer Systems Engineering</u>
- <u>Csci 523: Operating Systems</u>
- <u>Csci 524: Distributed Operating System Design</u>
- <u>Csci 525: Compiler Construction</u>
- Csci 526: Parallel Computing
- <u>Csci 530: Computer Architecture and Design</u>
- <u>Csci 531: Artificial Intelligence</u>
- <u>Csci 533: Analysis of Algorithms</u>
- <u>Csci 541: Expert Systems and Logic Programming</u>
- <u>Csci 543: Data Mining</u>
- <u>Csci 547: Digital Image Processing</u>
- <u>Csci 550: Program Semantics and Derivation</u>
- <u>Csci 551: Computer System Performance Analysis</u>
- <u>Csci 554: Web Architecture and Programming</u>
- <u>Csci 555: Functional Programming</u>
- Csci 556: Multiparadigm Programming
- <u>Csci 557: GPU Computing</u>
- <u>Csci 561: Computer Networks</u>
- <u>Csci 562: Software Engineering I</u>
- <u>Csci 575: Database Systems</u>
- <u>Csci 581: Special Topics in Computer Science I</u>
- <u>Csci 582: Special Topics in Computer Science II</u>
- <u>Csci 595: Graduate Computer Science Internship</u>
- <u>Csci 632: Machine Learning</u>
- Csci 658: Software Language Engineering
- <u>Csci 663: Software Families</u>
- <u>Csci 665: Wireless and Sensor Networks</u>

#### SCHOOL OF APPLIED SCIENCES COMMUNICATION SCIENCES & DISORDERS

- CSD 201: Introduction to Communicative Disorders
- <u>CSD 202: Statistics for CSD</u>
- <u>CSD 205: Anatomy and Physiology</u>
- CSD 211: Introduction to Phonetics
- <u>CSD 216: Normal Development of Communication</u>
- <u>CSD 301: Disorders of Articulation</u>
- <u>CSD 302: Research Methods for CSD</u>
- <u>CSD 303: Communication Deficits in Older Adults</u>
- CSD 304: Introduction to Hearing Conservation
- CSD 316: Language and Learning Disorders
- <u>CSD 351: Basic Audiology</u>
- CSD 356: Principles of Auditory (Re)Habilitation
- CSD 359: Manual Communication
- <u>CSD 360: Study USA ASHA Convention & Site</u>
- <u>CSD 401: Diagnostic Procedures</u>
- <u>CSD 405: Fluency and Voice Disorders</u>
- <u>CSD 430: Practices in Audiology</u>
- <u>CSD 452: Fundamental Speech & Hearing Science</u>
- <u>CSD 455: Neuroanat & Neurophys of Speech & Hearin</u>
- <u>CSD 494: Honors Thesis I</u>
- <u>CSD 495: Introduction to Clinical Science</u>
- <u>CSD 496: Honors Thesis II</u>
- <u>CSD 497: Methods & Associate Licensure in SLP</u>
- CSD 498: Undergrad Practicum in SLP
- CSD 499: Directed Research Practicum
- <u>CSD 501: Survey of Communicative Disorders</u>





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- <u>CSD 505: Neurophysiology of Communication</u>
- <u>CSD 506: Anat/Phys/Path Aud Sys</u>
- <u>CSD 507: Fundamentals of Hearing Science</u>
- <u>CSD 513: Speech Science</u>
- <u>CSD 520: Advanced Diagnostic Techniques</u>
- <u>CSD 521: Disorders of Fluency</u>
- <u>CSD 523: Phonological Disorders</u>
- <u>CSD 526: Neurogenic Disorders of Language</u>
- <u>CSD 531: Special Problems in CD</u>
- <u>CSD 541: Language Dev & Disorder in Preschool</u>
- <u>CSD 551: Clinical Audiology</u>
- <u>CSD 557: Audiology for the SLP</u>
- <u>CSD 560: Manual Communication I</u>
- <u>CSD 562: Manual Communication II</u>
- <u>CSD 575: Audio Instru & Meas</u>
- <u>CSD 591: Clinical Practicum in Audiology</u>
- <u>CSD 592: CI Sem/Speech-Lang Path</u>
- CSD 593: Clinical Seminar in Audiology
- <u>CSD 601: Directed Study</u>
- <u>CSD 605: Counseling Thry/Prac</u>
- <u>CSD 606: Ethics and Human Subjects Research</u>
- <u>CSD 612: Advanced Clinical Audiology</u>
- CSD 613: Rsch Design & Anal
- <u>CSD 615: Electrophysiologic Evaluation</u>
- <u>CSD 620: Assessment and Treatment of Dysphagia</u>
- <u>CSD 622: Voice and Resonance Disorders</u>
- <u>CSD 624: Craniofacial Anomalies</u>
- <u>CSD 625: Genetics, Autism, Augmentative & Alt Com</u>
- <u>CSD 626: Aphasia</u>
- <u>CSD 627: Neurogenic Disorders of Speech</u>
- <u>CSD 630: Cerebral Palsy</u>
- <u>CSD 631: Communication Changes in Aging</u>
- <u>CSD 632: Workshop in Comm Sciences & Disorders</u>
- <u>CSD 642: Lan De Dis School-Age</u>
- <u>CSD 649: Pediatric Audiology</u>
- CSD 651: Aural Rehabilitation
- <u>CSD 653: Hearing Aids</u>
- <u>CSD 654: Adv Amp Theory & Tech</u>
- <u>CSD 657: Industrial Audiology</u>
- <u>CSD 659: Seminar in Audiology</u>
- <u>CSD 670: Cen Aud Proc</u>
- <u>CSD 673: Perception of Speech</u>
- <u>CSD 690: Prof. Ethics, Licensure, and Curr Trends</u>
- <u>CSD 691: Graduate Practicum</u>
- <u>CSD 692: Graduate Practicum</u>
- CSD 693: Graduate Practicum
- CSD 694: Graduate Practicum
- <u>CSD 695: Graduate Practicum</u>
- <u>CSD 697: Thesis</u>

