

999. Doctoral Dissertation Research
Fall, Winter, Spring, Summer.
Variable credit. Approval of department.
Research in anatomy, bryology, cytology, ecology, genetics, lichenology, morphology, mycology, paleobotany, pathology, phycology, physiology, and taxonomy.

BUILDING CONSTRUCTION

See Agricultural Engineering.

BUSINESS LAW AND OFFICE ADMINISTRATION BOA

College of Business

- 201. Shorthand I**
Fall, Winter, Spring. 3(4-0) BOA 234 or 1 term typewriting.
Gregg shorthand theory, dictation and transcription for students with no previous training.
- 234. Typewriting I**
Fall, Winter, Spring. 2(2-2) Approval of department.
Mastery of keyboard; building speed and accuracy; elementary typewriting problems.
- 235. Typewriting II**
Fall, Winter, Spring. 2(2-2) BOA 234 or approval of department.
Improvement of speed and accuracy; arrangement of business letters, tabulation and manuscripts; production typewriting.
- 236. Advanced Typewriting**
Fall, Winter, Spring. 3(3-1) BOA 235 or 1-1/2 to 2 years typewriting.
Instruction in specialized typewriting problems to develop high-level competency.
- 304. Shorthand II**
Fall, Winter, Spring. 3(3-1) May reenroll for a maximum of 6 credits. BOA 201, BOA 235.
Development of theory and transcription competency, speed building.
- 308. Secretarial Administration I**
Winter, Spring. 4(4-0) BOA 236, BOA 304. Sophomores.
Development of proficiency in transcription skills.
- 309. Secretarial Administration II**
Fall, Spring. 4(4-2) BOA 236. Sophomores.
Machine dictation-transcription; duplication and copying processes; machine calculations; records management.
- 341. Survey of Business Law**
Fall, Winter, Spring. 4(4-0) Juniors.
Not open to business administration students.
Historical development of the law; courts, court procedures and civil remedies, torts, crimes; contracts, agency, sales, negotiable instruments, real and personal property, including bailments and liens. Textbook and lecture rather than case approach.

370. Administrative Office Management
Fall, Winter, Spring, Summer. 3(3-0) Juniors.
Analysis of office function and relationship to business organization; information handling and data processing; office design and layout; responsibilities of office administrators.

400H. Honors Work
Fall, Winter, Spring, Summer. 1 to 15 credits. Approval of department.
Independent and informal study in law, office administration or business communications.

416. Secretarial Administration III: Seminar
Winter, Spring. 4(4-0) Seniors or approval of department.
Analysis of the role of the executive secretary.

440. Law and Society
Fall, Winter, Spring, Summer. 3(3-0) Seniors or approval of department.
Legal reasoning and legal institutions., Court systems and court procedures. Relationships of citizen and businessman to governmental agencies. Torts, crimes.

441. Contracts and Sales
Fall, Winter, Spring, Summer. 3(3-0) BOA 440.
Contracts, including concept of freedom of contract and limitations. Sales. Case study method.

442. Agency, Partnerships and Corporations
Winter, Spring. 3(3-0) BOA 441.
The law dealing with agency and business organizations. Case study method.

443. Negotiable Instruments, Secured Transactions, Property
Winter, Spring. 3(3-0) BOA 441.
The law of negotiable instruments, secured transactions, and property. Case study method.

447. Hotel Law
Winter, Spring. 4(4-0) BOA 440.
Legal aspects of the hospitality industry.

468. Field Studies
Fall, Winter, Spring, Summer.
Variable credit. May reenroll for a maximum of 8 credits. Approval of department.
Planned program of observation and work in selected business firms. Analysis and reports.

848. The Legal Environment of Business
Fall, Summer. 4(4-0)
Critical examination of the environment in which business operates. Analysis of the component elements of the legal environment of business and the structural framework in which law functions.

871. Seminar: Office Administration
Winter, Summer. 3 credits. May reenroll for a maximum of 6 credits. Approval of department.
Problems, practices, and policies involved in office administration. Methods of establishing, analyzing, standardizing, and controlling administrative systems and procedures in the office.

878A. Seminar in Business Law
(878.) Winter. 4(4-0) BOA 848 or approval of department.
Contracts, sales, secured transactions and consumer legislation viewed from the judicial, legislative and executive vantage points.

878B. Seminar in Business Law
Spring. 4(4-0) BOA 848 or approval of department.
Agency, partnerships and corporations, viewed from legislative, judicial and executive vantage points, as they affect entrepreneurial decision making.

890. Special Problems
Fall, Winter, Spring, Summer.
Variable credit. Approval of department.

CHEMICAL ENGINEERING CHE

College of Engineering

222. Pollution of the Environment—Causes and Cures
Spring. 3(3-0) Nonmajors; no science or technical background required.
Pollution of air, water and land. Adulteration of foods. Overtaxing waste facilities. Depleting natural resources. Interaction of engineers, industry, government, and the public in creating and combating these problems.

300. Material and Energy Balances
Fall, Winter. 4(3-2) One year general chemistry, MTH 214 or concurrently, CPS 120 or concurrently.
Chemical engineering calculations. Synthesis of chemical process systems. Analysis of chemical process systems by material and energy balances. Behavior of gases. Enthalpy calculations for changes of temperature, phase changes, chemical reactions.

305. Transfer Processes and Separations I
Fall. 4(3-2) MTH 215; CHE 300 or concurrently.
Thermodynamics of fluid flow. Treatment of fluid flow as a momentum transfer process. Laminar and turbulent motion of compressible and incompressible fluids. Heat transfer in solids and flowing fluids.

306. Transfer Processes and Separations II
Winter. 4(3-2) CHE 305.
Heat transfer in condensing and boiling systems. Multiple effect evaporation. Radiant heat transfer. Application to engineering equipment. Mass transfer in single-phase systems, transport analogies interphase transfer and contacting of immiscible phases.

307. Transfer Processes and Separations III
Spring. 4(3-2) CHE 306.
Mass transfer in continuous contacting systems and stagewise processes. Counter-current processes, fractionation, contacting, efficiency, and simultaneous momentum, heat, and mass transfer.