

**ENVIRONMENTAL ENGINEERING**

**ENVIRONMENTAL ENGINEERING**

**ENE**

**801\*.** *Dynamics of Environmental Systems*  
Spring, 3(3-0)  
P: CE 481  
Principles of mass balance; reaction kinetics; mass transfer; reactor theory in environmental engineering.  
QP: CE 481 QA: ENE 801

**802\*.** *Physico-chemical Processes in Environmental Engineering*  
Fall, 3(3-0)  
P: ENE 801  
Analysis of physical and chemical principles which form the basis of air and water pollution control and are important in the fate of environmental contaminants in water, air and soils.  
QP: CE 483 QA: ENE 802

**803\*.** *Physicochemical Process Laboratory*  
Spring, 1(0-3)  
P: ENE 801 C: ENE 802  
Experiments involving physico-chemical processes such as air stripping coagulation/flocculation, activated carbon and chemical oxidation.  
QP: ENE 801 QA: ENE 802

**804\*.** *Biological Processes in Environmental Engineering*  
Spring, 3(3-0)  
P: CE 487, ENE 801 or concurrently C:  
ENE 801 if not already taken Basic principles for the engineering of microbial processes used in wastewater treatment, in-situ bioreclamation, and solid waste stabilization.  
QP: ENE 801 QA: ENE 804

**805\*.** *Biological Processes Laboratory*  
Fall, 1(0-4)  
P: ENE 804  
Laboratory experience in which principles taught in ENE 804 are applied for the treatment of wastewater.  
QP: ENE 804 QA: ENE 805

**807\*.** *Environmental Analytical Chemistry*  
Fall, 3(3-0)  
P: CE 481, approval of the department  
Modern techniques for measurement and analysis in environmental engineering; sample preparation; quality assurance.  
QP: CE 481

**808\*.** *Environmental Analytical Chemistry Laboratory*  
Spring, 1(0-3)  
P: CE 807  
Laboratory work in environmental analytical chemistry.  
QP: CE 481

**880\*.** *Special Problems in Environmental Engineering*  
Fall, Spring, Summer, 1 to 6 credits.  
May reenroll for a maximum of 6 credits.  
P: Approval of department.  
Solution of environmental engineering problems, of limited scope, which do not pertain to the student's thesis.

**890\*.** *Selected Topics in Environmental Engineering*  
Fall, Spring, Summer, 3(3-0) May reenroll for a maximum of 9 credits.  
P: Approval of department  
Selected topics in new or developing areas of environmental engineering.  
QA: CE 890

**899\*.** *Masters Thesis Research*  
Fall, Spring, Summer, 1 to 8 credits.  
May reenroll for a maximum of 0 credits.  
P: Approval of department  
Master's thesis research

**999\*.** *Doctoral Dissertation Research*  
Fall, Spring, Summer, 1 to 12 credits.  
May reenroll for a maximum of 0 credits.  
P: Approval of department  
[Doctoral dissertation research  
QA: ENE 999

**FAMILY AND CHILD ECOLOGY**

**FCE**

**145.** *The Individual, Marriage and the Family*  
Fall, Spring, 3(3-0)  
R: Open only to freshmen and sophomores.  
Development of the young adult in the human ecological context. Issues of sexuality, gener, parenting, work and family interface, communication and resource use. Diversity in relationships and families.  
QA: FCE 145

**211.** *Child Growth and Development: Conception Through Early Childhood*  
Fall, Spring, 4(3-2)  
P: PSY 101. R: Not open to freshmen.  
Physical, cognitive, social, emotional and ecological aspects of human growth and development from conception through early childhood.  
QP: PSY 160 ORPSY 170 QA: FCE 262A

**212.** *Children, Youth and Family*  
Fall, Spring, 3(3-0)  
P: FCE 145, SOC 100 or FCE 211. R: Not open to freshmen.  
An ecosystems perspective on development during childhood and adolescence emphasizing family and community contexts.  
QP: FCE 145 ORFCE262A QA: FCE 263

**225.** *Ecology of Family and Human Development*  
Fall, Spring, 3(3-0)  
R: NONE  
Human development across the lifespan with an ecological perspective. Relationships between human resource professionals and family systems.

**238.** *Personal Finance*  
Fall, Spring, Summer, 3(3-0)  
Strategies, techniques and resources useful in the management of personal finance.  
QA: FCE 238

**270.** *Human Services in the Community*  
Fall, Spring, 3(2-3)  
R: Not open to freshmen. Open only to Family Community Services, Family and Consumer Resources, and Home Economics Education students.  
Human services from an ecological perspective. Human service needs, resources and methods of service delivery. Participation in community agency required.  
QA: FCE 221

**320.** *Interaction Processes with Children in Groups*  
Fall, Spring, 3(3-0)  
P: FCE 211. R: Not open to freshmen and sophomores.  
Principles of verbal and non-verbal interaction in relation to children's behavior in groups. Focus on young children in early childhood programs.  
QP: FCE 262AFCE 262BORFCE 221 QA: FCE 364A

**320L.** *Interaction with Children-Laboratory*  
Fall, Spring, 1(0-3)  
P: FCE 211, FCE 320 or concurrently. R:  
Not open to freshmen and sophomores.  
Practice applying principles of interaction to individuals and small groups in early childhood programs.  
QP: FCE 262AANDFCE 262BFCE 364A QA: FCE 364B

**321.** *Curriculum for Early Childhood Programs*  
Fall, Spring, 3(3-0)  
P: FCE 320, FCE 320L. R: Not open to freshmen and sophomores.  
Child development principles and accreditation standards for designing curricula for pre-primary age children. Plan and evaluation of unit activities and programs.  
QP: FCE 364AFCE 364B QA: FCE 369A

**321L.** *Curriculum for Early Childhood Programs: Laboratory*  
Fall, Spring, 1(0-3)  
P: FCE 320, FCE 320L, FCE 321 or concurrently. R: Not open to freshmen and sophomores.  
Supervised practice in providing learning activities for individual children and small groups. Planning, implementing and evaluating activities.  
QP: FCE 364AFCE 364B QA: FCE 369B

**350.** *Management and Decision Making in the Family*  
Fall of even-numbered years, 3(3-0)  
R: Not open to freshmen and sophomores.  
Management for the realization of values and goals through decision making about resources in the family.  
QA: FCE 331 FCE 332

**370.** *Educational Systems in Human Ecology*  
Fall, Spring, 3(3-0)  
P: FCE 270. R: Not open to freshmen.  
The human ecologist as educator in formal, nonformal, and informal educational systems. Instructional methods appropriate for those environments.  
QP: FCE 221 QA: FCE 340

**405.** *Work and Family*  
Spring, 3(3-0)  
R: Not open to freshmen and sophomores.  
Historical perspectives on work and family. Effects of work on family members across life cycle, and employer and public policy response.  
QA: FCE 405

**411.** *Developmental Study of a Child*  
Fall, Spring, 2(1-3)  
P: FCE 211 or PSY 244. R: Not open to freshmen and sophomores.  
Ecological analysis of developmental behavior. Application of research findings to observations of a child.  
QP: FCE 262 PSY 244 QA: FCE 461

**413.** *Adult Development & the Family: Middle & Later Years*  
Spring, Summer, 4(3-3)  
P: One course in psychology or sociology.  
R: Not open to freshmen and sophomores.  
Social, psychological and biological development within the family. Field study approach.  
QP: PSY/SOC QA: FCE 480 FCE 479

**414.** *Parenting*  
Fall of odd-numbered years, 3(3-0)  
R: Not open to freshmen and sophomores.  
Childrearing in modern society. Adult parenting roles in various family structures. Support roles of families and communities.