TEACHER EDUCATION — Descriptions of Courses

803. Enteric and Parenteral Nutrition
Fall, Spring. 3(3-0)
R: Open only to M.S. students in Surgery. Identification of individuals requiring nutritional support. Nutritional requirements in disease, delivery of total parenteral and enteral nutrition. Special problems.
Temporary approval effective from Fall Semester 1992 through Summer Semester 1994.
QA: SUR 903

804. Research Design and Quantitative Techniques for Surgical Residents
Spring. 3(3-0)
R: Open only to students in master’s degree program in Surgery. Recognition and differentiation between experimental designs. Identification of strengths and weaknesses of manuscript. Recognition and definition of statistical terms and common inferential techniques used in surgical research. Use of computer software.
QA: SUR 804

890. Seminars in Research
Fall, Spring, Summer. 1 credit. A student may earn a maximum of 2 credits in all enrollments for this course.
R: Open only to M.S. students in Surgery. Philosophy and methods of research. Preparation and presentation of research data in research reports. Practical applications.
Temporary approval effective from Fall Semester 1992 through Summer Semester 1994.
QA: SUR 880

899. Master's Thesis Research
Fall, Spring, Summer. 3 to 4 credits. A student may earn a maximum of 10 credits in all enrollments for this course.
P: SUR 801, SUR 802, SUR 803, SUR 804. R: Open only to M.S. students in Surgery. Approval of department.
Temporary approval effective from Fall Semester 1992 through Summer Semester 1994.
QA: SUR 889

SYSTEMS SCIENCE

Department of Electrical Engineering

410. Systems Methodology
Spring. 2(1-3)
P: CE 370; R: Open only to Engineering Arts seniors. Systems analysis and design. Needs analysis, system identification, graphical models. Team project required.
QP: CE 370 QA: SYS 410

810. Systems I
Fall of odd-numbered years. 3(3-0)
P: CP 131, MTH 234; R: Not open to Electrical Engineering majors.
Systems methodology and analysis. Mathematical representations of systems, transform and state space analysis, feedback control, system simulation. Practical applications.
QP: MTH 214 QA: SYS 810, SYS 811

811. Systems II
Spring of odd-numbered years. 3(3-0)
P: STT 351, SYS 810; R: Not open to Electrical Engineering majors.
System modeling methodology and techniques. Continuous and discrete system simulation. Simulation model optimization with applications to optimal control and parameter estimation. Applications in decision support contexts.
QP: SYS 810, STT 441 or STT 351 QA: SYS 811, SYS 814

215. Critical Reading and Children’s Literature
Fall, Spring. 2(2-0)
R: Not open to freshmen and sophomores. Open only to elementary certification candidates. Strategies for helping children to develop critical reading skills through literary experience. Emphasis on fiction.
Temporary approval effective from Fall Semester 1992 through Spring Semester 1994.
QP: TE 200 or TE 200A or TE 200B or TE 200C or TE 200D QA: TE 313, TE 313B, TE 313D

315. Teaching Mathematics in the Elementary Grades
Fall, Spring. 1 to 2 credits.
R: Not open to freshmen and sophomores. Open only to elementary certification candidates. Methods and materials for teaching mathematics in the elementary school. Emphasis on problem-solving and meaningful presentation of mathematical content.
Temporary approval effective from Fall Semester 1992 through Spring Semester 1994.
QP: TE 200 or TE 200A or TE 200B or TE 200C or TE 200D QA: TE 315, TE 315B, TE 315C, TE 315A, TE 315B

316. Teaching Social Studies in Elementary Grades
Fall, Spring. 1 to 2 credits.
R: Not open to freshmen and sophomores. Open only to elementary certification candidates. Methods and materials for teaching social studies in diverse elementary classrooms. Use of social science and historical content to address contemporary issues.
Temporary approval effective from Fall Semester 1992 through Spring Semester 1994.
QP: TE 200 or TE 200A or TE 200B or TE 200C or TE 200D QA: TE 316, TE 316B, TE 316C, TE 316D

317. Teaching Language Arts in the Elementary School
Fall, Spring. 2(2-0)
R: Not open to freshmen and sophomores. Open only to elementary certification candidates. Methods and materials for teaching language arts in elementary grades. Emphasis on the interrelationship of listening, viewing, speaking, reading, and writing.
Temporary approval effective from Fall Semester 1992 through Spring Semester 1994.
QP: TE 200 or TE 200A or TE 200B or TE 200C or TE 200D QA: TE 317, TE 317C

318. Teaching Science in the Elementary and Middle School
Fall, Spring. 2(2-0)
R: Not open to freshmen and sophomores. Open only to elementary certification candidates. Methods and materials for teaching science. Emphasis on teaching for conceptual understanding.
Temporary approval effective from Fall Semester 1992 through Spring Semester 1994.
QP: TE 200 or TE 200A or TE 200B or TE 200C or TE 200D QA: TE 318, TE 318B, TE 318C, TE 318D

322. Methods of Teaching I - Secondary Common Elements
Fall. 1(1-0)
R: Not open to freshmen and sophomores. Open only to secondary certification candidates. Instructional issues common to all subject areas. Selection of instructional techniques based on teacher values, student needs, and learning styles.
Temporary approval effective from Fall Semester 1992 through Spring Semester 1994.
QP: TE 200A or TE 200B or TE 200C or TE 200D QA: TE 322