

Studio Art—STA

491C Selected Topics - Ceramics

Spring. 2 to 3 credits. A student may earn a maximum of 6 credits in all enrollments for this course. P: (STA 345) R:

Issues of technique, style, and content in ceramics.

491D Selected Topics - Sculpture

Spring. 2 to 3 credits. A student may earn a maximum of 6 credits in all enrollments for this course. P: (STA 350 or STA 351 or STA 354 or STA 355) R: Approval of department.

Issues of technique, style, and content in sculpture.

491E Selected Topics - Graphic Design

Spring. 2 to 3 credits. A student may earn a maximum of 6 credits in all enrollments for this course. P: (STA 360) R: Approval of department.

Issues of technique, style, and content in graphic design.

491F Selected Topics - Photography

Fall of odd years. 2 to 3 credits. A student may earn a maximum of 6 credits in all enrollments for this course. P: (STA 370) R: Approval of department.

Issues of technique, style, and content in photography.

492 Senior Seminar and Professional Practice (W)

Fall, Spring. 2(2-0) P: Completion of Tier I writing requirement. R: Open only to seniors in the Studio Art major. C: STA 492A concurrently.

Capstone course for artists and designers. Writing as a mode of issue delineation and definition.

492A Exhibition Practicum

Fall, Spring. 1(1-1) P: Completion of Tier I writing requirement. C: STA 492 concurrently.

Exhibition experience in studio art. Audience delineation. Conceptualization. Use of space. Evaluation.

493 Design Internship

Fall, Spring. 1 to 4 credits. A student may earn a maximum of 4 credits in all enrollments for this course. P: (STA 460 or STA 462 or STA 463 or STA 464 or STA 465 or STA 466 or STA 467 or STA 468) RB: and one other 400 level graphic design course. R: Approval of department, contract required prior to registration.

Field experience in a working design environment under supervision of a design professional: art director, graphic designer, or photographer.

494 Design Center

Fall, Spring. 4(0-8) P: (STA 460 or STA 462 or STA 463 or STA 464 or STA 465 or STA 466 or STA 467 or STA 468) RB: and one other 400 level graphic design course. R: Approval of department, contract required prior to registration.

Practicum in design problem solving, including extensive contact with selected clients at a professional level.

820 Painting

Fall, Spring. 2 to 8 credits. A student may earn a maximum of 40 credits in all enrollments for this course. R: Open only to Master of Fine Arts students in Studio Art. Approval of department.

Advanced study in a variety of painting media to foster independent development.

831 Screen Printing

Fall, Spring. 2 to 8 credits. A student may earn a maximum of 40 credits in all enrollments for this course. R: Open only to Master of Fine Arts students in Studio Art. Approval of department.

Theory and practice of screen printing as a means to create expressive imagery.

832 Lithography

Fall, Spring. 2 to 8 credits. A student may earn a maximum of 40 credits in all enrollments for this course. R: Open only to Master of Fine Arts students in Studio Art. Approval of department.

Theory and practice of lithography as a means to create expressive imagery.

833 Intaglio Printing

Fall, Spring. 2 to 8 credits. A student may earn a maximum of 40 credits in all enrollments for this course. R: Open only to Master of Fine Arts students in Studio Art. Approval of department.

Theory and practice of intaglio printing as a means to create expressive imagery.

840 Ceramics

Fall, Spring. 2 to 8 credits. A student may earn a maximum of 40 credits in all enrollments for this course. R: Open only to Master of Fine Arts students in Studio Art. Approval of department.

Advanced study in ceramics to foster independent development.

850 Sculpture

Fall, Spring. 2 to 8 credits. A student may earn a maximum of 40 credits in all enrollments for this course. R: Open only to Master of Fine Arts students in Studio Art. Approval of department.

Advanced study in a variety of three-dimensional media to foster individual development.

860 Graphic Design

Fall, Spring. 2 to 8 credits. A student may earn a maximum of 40 credits in all enrollments for this course. R: Open only to graduate students in Studio Art. Approval of department.

Planning and conceptualizing ideas for visual communication problems that are to be expressed in words and/or pictures. Design of research that will expose a mastery of visual aesthetics and concepts in information design.

891 Special Topics in Art Education

Fall, Spring, Summer. 1 to 3 credits. A student may earn a maximum of 3 credits in all enrollments for this course. R: Approval of department.

Special topics supplementing regular course offerings proposed by faculty on a group study basis for graduate students.

892 Master of Fine Arts Seminar

Fall. 3(3-0) A student may earn a maximum of 12 credits in all enrollments for this course. R: Open only to Master of Fine Arts students in Studio Art. Approval of department.

Contemporary intellectual issues related to practice in the visual arts. Group critiques of individual scholarly and applied research.

898 Master of Fine Arts Research

Fall, Spring. 1 to 8 credits. A student may earn a maximum of 16 credits in all enrollments for this course. RB: 12 graduate credits in student's studio art discipline. R: Open only to Master of Fine Arts students in Studio Art.

Individual research project in the student's studio art discipline directed by major professor.

SURGERY

SUR

Department of Surgery College of Human Medicine

608 Junior Surgery Clerkship

Spring, Summer. 6 to 12 credits. A student may earn a maximum of 12 credits in all enrollments for this course. RB: (FMP 602) R: Open only to graduate-professional students in the College of Human Medicine

The surgical patient, surgical diagnosis, pre-operative evaluation and post-operative care.

609 Otolaryngology Clerkship

Fall, Spring, Summer. 6 credits. A student may earn a maximum of 18 credits in all enrollments for this course. RB: (SUR 608) R: Open only to graduate-professional students in College of Human Medicine.

Common otolaryngologic disorders, emergencies. Diagnosis and treatment. Primary physician's judgments about management.

610 Plastic Surgery Clerkship

Fall, Spring, Summer. 6 credits. A student may earn a maximum of 18 credits in all enrollments for this course. RB: (SUR 608) R: Open only to graduate-professional students in College of Human Medicine.

Principles of wound healing and tissue repair. Indications and applications of plastic surgery procedures.

611 Urology Clerkship

Fall, Spring, Summer. 6 credits. A student may earn a maximum of 18 credits in all enrollments for this course. RB: (SUR 608) R: Open only to graduate-professional students in College of Human Medicine.

Demonstration of clinical manifestations of genitourinary disease, investigative methods and techniques of diagnosis and management. Urologic emergencies and performance of basic urologic skills.

613 Orthopedic Surgery Clerkship

Fall, Spring, Summer. 6 credits. A student may earn a maximum of 18 credits in all enrollments for this course. RB: (SUR 614) R: Open only to graduate-professional students in College of Human Medicine.

Diagnosis and management skills in common orthopedic problems. Orthopedic emergencies.

TEACHER EDUCATION

Department of Teacher Education College of Education

- 120 Seminar in Integrated Science for Elementary Schools**
Spring. 1(1-1) Interdepartmental with Science and Mathematics Education. Administered by College of Natural Science. P: (BS 110 or BS 111 or CEM 141 or PHY 231 or PSL 250 or MMG 205 or GLG 201 or GEO 203) R: Open only to students in the Integrated Science Teaching major, the Special Education major, the Child Development major, the Elementary Teacher Education program, the 5th-year teacher certification program, or approval of college.
Exploration of major connecting themes in life sciences, earth science, and physical science as evidenced in the K-8 science curriculum and college science courses.
- 150 Reflections on Learning**
Fall, Spring, Summer. 3(3-0) Interdepartmental with Counseling, Educational Psychology and Special Education.
Students' experiences as learners in comparison to psychological, sociological, and anthropological theories and assumptions about learning and teaching in and out of school.
- 240 Diverse Learners in Multicultural Perspective**
Fall, Spring, Summer. 3(2-2) Interdepartmental with Counseling, Educational Psychology and Special Education. Administered by Department of Counseling, Educational Psychology, and Special Education. Not open to students with credit in TE 250.
Communicative, linguistic, physical, sensory, behavioral, affective, and cognitive differences in learning in multicultural classrooms. Factors that mediate access to knowledge.
- 250 Human Diversity, Power, and Opportunity in Social Institutions**
Fall, Spring, Summer. 3(3-0)
Comparative study of schools and other social institutions. Social construction and maintenance of diversity and inequality. Political, social and economic consequences for individuals and groups.
- 301 Learners and Learning in Context (W)**
Spring. 4(3-4) P: Completion of Tier I writing requirement. RB: (TE 150) And (TE 250 Or CEP 240) R: Not open to freshmen or sophomores. Open only to students admitted to the teacher certification program.
Role of social context and sociocultural background in learning. Natural and socially constructed differences among learners. Relationship among subject-specific knowledge, teaching and learning that subject, and the institutional and communal context. Multiple literacies.

- 614 Neurosurgery Clerkship**
Fall, Spring, Summer. 6 credits. A student may earn a maximum of 18 credits in all enrollments for this course. RB: SUR 608. R: Open only to graduate-professional students in College of Human Medicine.
Problems related to common emergent and elective neurosurgery involving the brain, spine, and peripheral nerves. Neurological examinations, diagnostic methods.
- 615 Ophthalmology Clerkship**
Fall, Spring, Summer. 6 credits. A student may earn a maximum of 18 credits in all enrollments for this course. RB: (SUR 608) R: Open only to graduate-professional students in College of Human Medicine.
Medical and surgical treatment of eye diseases. Clinical experiences include private office practice, surgical observations, pre-and post-operative care.
- 616 Thoracic Surgery Clerkship**
Fall, Spring, Summer. 6 credits. A student may earn a maximum of 18 credits in all enrollments for this course. RB: (SUR 608) R: Open only to graduate-professional students in College of Human Medicine.
Problem solving in thoracic medicine and surgery. Pulmonary physiology. Diagnostic tools and tests, and indications for surgical procedures.
- 618 Anesthesia Clerkship**
Fall, Spring, Summer. 6 credits. A student may earn a maximum of 18 credits in all enrollments for this course. RB: (SUR 608) R: Open only to graduate-professional students in College of Human Medicine.
Common anesthetic agents. Performing anesthetic procedures under faculty supervision.
- 619 Sub-specialty Surgery Clerkship**
Fall, Spring, Summer. 6 credits. A student may earn a maximum of 18 credits in all enrollments for this course. RB: (SUR 608) R: Open only to graduate-professional students in College of Human Medicine.
Surgical domains not covered otherwise or in which students desire further exposure.
- 620 Senior Surgery Clerkship**
Fall, Spring, Summer. 6 to 12 credits. A student may earn a maximum of 12 credits in all enrollments for this course. RB: (SUR 608 and MED 608) R: Open only to graduate-professional students in the College of Human Medicine.
Understanding of the principles of various surgical specialties, critically ill patients, or enhanced exposure to ambulatory general surgery.
- 633 Extended Clinical Experience**
Fall, Spring, Summer. 6(6-0) Fall: All six(6) campuses. Spring: All six(6) campuses. Summer: All six(6) campuses. P:M: (SUR 608)
Based in community hospitals and ambulatory sites, this is a 4 week clinical experience emphasizing interviewing skills, history, physical exam, problem solving and therapy.
- 637 Core Competencies III**
Fall, Spring, Summer. 2(2-0) Fall: same as below. Spring: Flint-Saginaw-GR-Lansing-Kalamazoo-UP. Summer: Flint-Saginaw-GR-Lansing-Kalamazoo-UP. A student may earn a maximum of 6 credits in all enrollments for this course. Interdepartmental with Human Medicine; Family Practice; Medicine; Obstetrics, Gynecology and Reproductive Biology; Pediatrics and Human Development. Administered by College of Human Medicine. R: Open only to graduate-professional students in College of Human Medicine.
Core knowledge and skills from an interdisciplinary perspective.
- 801 Shock and Metabolism**
Fall. 4(4-0) R: Open only to M.S. students in Surgery.
Results of prolonged reduction in tissue perfusion on tissue metabolism, structure, and function at the systemic, cellular and subcellular levels. Pharmacologic interventions useful in volume resuscitation.
- 803 Enteral and Parenteral Nutrition**
Fall, Summer. 3(3-0) R: Open only to M.S. students in Surgery.
Identification of individuals requiring nutritional support. Nutritional requirements in diseases. Delivery of total parenteral and enteral nutrition. Special problems.
- 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 a manuscript. Recognition and definition of statistical terms and common inferential techniques used in surgical research. Use of computer software in research.
- 890 Seminars in Research**
Fall, Spring, Summer. 1 credit. A student may earn a maximum of 5 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.
- 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. RB: (SUR 801 and SUR 802 and SUR 803 and SUR 804) R: Open only to M.S. students in Surgery. Approval of department.
Master's thesis research.