

UTCH - UTEACH

UTCH 1201 Step I: Inquiry Approaches to Teaching (1-1-1)

An introduction to the theory and practice necessary to design and deliver excellent instruction in grades 3-12. Candidates will have an opportunity to explore teaching in science, mathematics, or computer science as a career through field experiences in elementary classrooms. Course may be attempted only two times. (Course Fee Required)

Repeatability: Repeatable for credit up to 1 times or 1 hours.

UTCH 1202 Step II: Inquiry-Based Lesson Design (1-1-1)

This course builds on the knowledge and skills developed in UTCH 1201 with an emphasis on the middle school environment and curricula. Students continue to explore teaching in science, mathematics, or computer science as a career. Course includes field experience in a middle school classroom. Course may be attempted only two times. (Course Fee Required)

Prerequisite(s): UTCH 1201 with a minimum grade of C

UTCH 2105 Knowing and Learning in Mathematics and Science (3-0-3)

Prerequisites: UTCH 1202 with a grade of C or better, or departmental approval. Critical examination of issues related to learning and knowing science, mathematics, and computer science. Development of a powerful tool kit of approaches to knowing and learning in science, mathematics, and computer science. Course may be attempted only two times.

Prerequisite(s): UTCH 1202 with a minimum grade of C

UTCH 2203 Step III: Technological and Pedagogical Content Knowledge (2-2-3)

Prerequisite: UTCH 1202 with a C or better. Exploration of the development of content within and across grade levels in national and state standards and best practices for teaching major conceptual domains in computer science, mathematics, and science. Students will have opportunities to explore content pedagogies across STEM disciplines as well as dig deeper into their specific content area pedagogy. Both general technology tools for teaching as well as current content specific technologies will be examined and students will visit P-12 classrooms of exemplary teachers to observe effective teaching.

Prerequisite(s): UTCH 1202 with a minimum grade of C

UTCH 3115 Functions and Modeling for Secondary Mathematics Teachers (3-0-3)

Candidates engage in explorations and lab activities designed to strengthen and expand their knowledge of the topics found in secondary mathematics. Candidates collect data and explore a variety of situations that can be modeled using linear, exponential, polynomial, and trigonometric functions. Activities are designed to have them take a second, deeper look at topics they should have been exposed to previously; illuminate the connections between secondary and college mathematics; illustrate good, as opposed to typically poor, sometimes counterproductive, uses of technology in teaching; illuminate the connections between various areas of mathematics; and engage them in serious (i.e., non-routine) problem solving, problem-based learning, and applications of mathematics. While there is some discussion of how the content relates to secondary mathematics instruction, with the instructor endeavoring to model high quality instructional techniques, Functions and Modeling primarily emphasizes mathematics content knowledge and content connections, as well as applications of the mathematics topics covered. Course may be attempted only two times.

Prerequisite(s): (MATH 1131 with a minimum grade of C and MATH 2115 with a minimum grade of C)

UTCH 3205 Classroom Interactions (3-1-3)

Prerequisites: UTCH 2105 with a grade of C or better and Admission to Teacher Education. Application of learning theories in instructional settings. Teacher candidates will design and implement instructional activities informed by their own understanding of what it means to know and learn science, mathematics, and computer science, and then evaluate the outcomes of those activities on the basis of student artifacts. Candidates will develop awareness and understanding of equity issues and their effects on learning. Includes field experience in middle or high school classrooms. Course may be attempted only two times. (Course Fee Required)

Prerequisite(s): UTCH 2105 with a minimum grade of C

Restriction(s):

Enrollment limited to students with the Admitted to Teacher Education attribute.

UTCH 3215 Research Methods (2-2-3)

Students design and carry out independent research inquiries, which they communicate in written and oral presentations, appropriate to their scientific/mathematical/computer science community. Research design, hands-on experimentation, data interpretation, argumentation, peer review and communication emphasized. Course may be attempted only two times. (Course Fee Required)

UTCH 4205 Inquiry-Based Instruction (3-1-3)

Exploration of inquiry-based instruction and development of an approach to designing, implementing and evaluating problem- and project-based curricula and processes in middle and secondary science, mathematics, and computer science classrooms. Includes field experience in middle or high school classrooms and learning centers such as Oxbow Meadows or Coca Cola Space Science Center. Course may be attempted only two times.

Prerequisite(s): Admitted to Teacher Education with a score of Y and UTCH 3205 with a minimum grade of C

Repeatability: Repeatable for credit up to 1 times or 3 hours.

UTCH 4485 Student Teaching (0-40-9)

Prerequisite: Admission to Teacher Education and Student Teaching. Co-requisites: UTCH 4795 and SPED 4115. This course is part of the UTeach Columbus program. Observation, participation, and instruction in a middle or high school classroom in the student's major field. Cooperative supervision by selected classroom teachers and college faculty. (S/U grading) (Course Fee Required)

UTCH 4698 Teaching Internship (0-40-9)

This course is part of the UTeach Columbus program. An internship experience for provisionally certified teachers seeking initial certification in Georgia. Cooperative supervision and evaluation from university and school district personnel. (S/U grading)

UTCH 4795 Student Teaching Seminar (1-0-1)

Discussion of common problems encountered in student teaching conducted in a seminar setting. Course may be attempted only two times. (S/U grading)