• ALD 320 Cognition, Human Learning, and Motivation  Prerequisite: PSY 301
  Current and classical theories concerning conditioning paradigms, learning and remembering, attention, knowledge representation and retrieval, comprehension and production of language, problem solving, and the ways emotion influences learning.

• ALD 321 Play in Early Childhood Development  Prerequisite: PSY 301
  Theoretical and empirical bases for observing children in play; cognitive, social, and communicative stages related to developmental theory; children's adjustment related to social and emotional theories; motivational value of play. Fieldwork to be arranged.

• ALD 322 Individual Differences  Prerequisite: PSY 301
  Introduction to individual differences among people through the life span. Examines areas of exceptionality within the context of typical development: current research trends; theoretical and legal considerations; and practice-related issues including family involvement, cultural and linguistic diversity, and educational perspectives. Orientation to assistive technology. Fieldwork hours to be arranged.

• ALD 325 Second Language Acquisition  Prerequisite: PSY 301
  Acquisition by children or adults of English as a second language. Simultaneous acquisition of two languages, adding a second language, language processing, order of acquisition, role of the first language. Required for certification in bilingual education.

• ALD 327 Sociocultural Influences on Learning  Prerequisite: PSY 301
  Human learning in multisocial, multilingual, and multicultural contexts: realities of society and their impact on learning; social concerns such as prejudice, stereotyping, cross-cultural attitudes, bilingual issues, parent and community involvement. Three lecture hours and three laboratory hours a week for one semester.

• EDC 371 Topic 13: Applied Linguistics and Methods in ESL  Prerequisite: PSY 301
  The purpose of this course is to provide theoretical and practical perspectives of linguistics as this field relates to language teaching. Basic principles of language acquisition, linguistics and sociolinguistics will be explored to give members of the class the opportunity to determine implications primarily for students who are learning English as a second language (ESL). Knowledge of Spanish is not necessary, but the instructor will make English-Spanish comparisons to provide concrete examples. The main topics of this course are nature of language, semantics, second language acquisition, language variation and change, discourse, written language, phonology, language testing, syntax and morphology, and ESL and bilingual education applications.

• HED 329K Child, Adolescent, and Adult Health  No prerequisite, but restricted to students in the College of Education
  The foundations of child, adolescent, and adult health; health education; and the biological, environmental, and behavioral health determinants of health. Includes the application of evidence-based child, adolescent, and adult health promotion concepts; prominent health risk behaviors established during youth that increase the risk of morbidity and mortality; and the application of personal health and wellness information. Three lecture hours a week for one semester. Only one of the following may be counted: Health Education 329, 329K, Kinesiology 333.

• KIN 314 Children's Movement  Prerequisite: 15 semester hours of college coursework
  Principles and practices related to the development of children's movement skills, fitness, and commitment to a physically active lifestyle. Includes the scientific basis for motor performance, curricular organization, and pedagogical methodology related to elementary school physical education. Involves group work, field experience in elementary school physical education classes, and participation in community activities. Three lecture hours and three laboratory hours a week for one semester, including off-campus observation of children's movement programs.

• INF 322T Children's Literature  Prerequisite: 45 semester hours
  INF 322T is a survey course in the evaluation, selection, and proper and creative use of books and other media with children. Topics include forms and content of literature for children. Extensive reading of children's books. Intended to help the student develop a frame of reference for working with children's materials.

• M 301 Introduction to Mathematics  No prerequisite
  Topics in M 301 may include number theory (divisibility, prime numbers, the Fundamental Theorem of Arithmetic, greatest common denominator, Euclidean Algorithm, modular arithmetic, special divisibility tests), probability (definition, laws, permutations and combinations), network theory (Euler circuits, traveling salesman problem, bin packing), game theory. Some material is of the instructor's choosing.

• M 303D Applicable Mathematics  Prerequisite: ML1 score of 430, or C in M 301
  The course treats some of the techniques that allow mathematics to be applied to a variety of problems. It is designed for the non-technical student who needs an entry-level course developing such mathematics skills. Topics include: linear and quadratic equations, systems of linear equations, matrices, probability, statistics, exponential and logarithmic functions, and mathematics of finance.
• **M 305G Elementary Functions and Coordinate Geometry**  **Prerequisite:** SAT II ML1 score of 480, or C in M 301

**M 305G** is intended as an introduction to the functions that are studied in more detail in the calculus sequence. The course covers sets, algebra of functions, inverse functions, logarithms, exponential functions, trigonometric functions, inverse trigonometric functions, polynomials, and the range, domain and graphs of these functions. Students with four years of high school math who require calculus in their degree plans should seek careful advice before taking this course. It may turn out to be a review and not necessary for these students.

• **M 316 Elementary Statistical Methods**  **Prerequisite:** SAT II ML1 score of 430, or C in M 301

Graphical presentation, frequency functions, distribution functions, averages, standard deviation, variance, curve-fitting, and related topics.

• **M 316K Foundations of Arithmetic**  **Prerequisite:** Mathematics 302, 303D, 305G, or 316 with a grade of at least C.

An analysis, from an advanced perspective, of the concepts and algorithms of arithmetic, including sets; numbers; numeration systems; definitions, properties, and algorithms of arithmetic operations; and percents, ratios, and proportions. Problem solving is stressed.

• **M 316L Foundations of Geometry, Probability and Statistics**  **Prerequisite:** M316K with a grade of at least C.

An analysis, from an advanced perspective, of the basic concepts and methods of geometry, statistics, and probability, including representation and analysis of data; discrete probability, random events, and conditional probability; measurement; and geometry as approached through similarity and congruence, through coordinates, and through transformations. Problem solving is stressed.


This four-semester course sequence will develop the core concepts in the Natural Sciences: physics and a bit of chemistry in semester one, chemistry and geology in semester two, biology in semester three, and astronomy, optics, and Earth climate in semester four. The sequence will follow the theme of energy flow in systems through all these topics. The courses will lead students through a set of hands-on activities in which students discover new physical phenomena. In so doing, students will have an opportunity to experience phenomena through observation and experiment, and learn to explain or articulate ideas in the natural sciences by resorting to experimental data. Such skills are important, since misconceptions in the sciences often trace their origins to poorly-developed models to explain our everyday observations. The courses will encourage students to present scientific explanations to each other and to critique explanations of their peers. The course will model the inquiry-based teaching styles most appropriate for future elementary school teachers to employ in their own classrooms, relying less on lecture than on hands-on investigations. Finally, the courses will address common misconceptions held by elementary school children that often linger into adulthood.

• **PSY 301 Introduction to Psychology**  **No prerequisite**

This course covers the basic problems and principles of human experience and behavior.

• **UGS 302 Seminar-format Signature Course**  **No prerequisite**

**UGS 302** is a small, 18-student class that offers first-year students the opportunity to interact closely with a faculty member and their peers through class discussion. These courses have an expansive array of topics taught by faculty from almost every college and school at the university. In these seminar-format classes, students acquire knowledge through the symbiotic relationship of interdisciplinary study. For example, science will inform your interpretation of a painting and vice versa, or you will see how law, foreign policy, marketing, and education all influence the economy. Information literacy and research will play a major role in the fulfillment of the course’s writing flag, which counts toward lower-division writing requirements. Seminars also introduce you to the resources of the university and assist you in identifying interesting subjects for further research and future careers.

• **UGS 303 Large-format Signature Course**  **No prerequisite**

**UGS 303** is a way to expose students to some of UT’s top faculty, who do some of their best teaching in a large format. These courses range from 50-200 students, but discussion sessions of 17 students create the intimate environment found in the Signature Seminars. The large format courses are similar to seminars in their requirements (i.e., interdisciplinary and contemporary content, oral presentation, information literacy, use of campus resources, University Lecture Series) except they will not be counted as a writing component.