

- 542: Seminar in Central Auditory Processing Disorders.** 0-3-3. A study of central auditory processing disorders including examination of various auditory tests for central processing, including strengths and weaknesses of the tests.
- 543: Seminar in Pediatric Audiology.** 0-3-3. A study of the investigation, identification, and assessment of children with audiological problems.
- 544: Communication in Small Groups.** 0-3-3. Study of theory and research in the dynamics of small group communication processes with emphasis on the interaction of message variables with other variables.
- 545: Clinical Audiological Experience.** 1 - 3 hour(s) credit (18). Supervised practicum in audiology including testing, aural habilitation/rehabilitation, report writing, and counseling clients with auditory problems.
- 546: Conference Course in Speech Communication.** 0-3-3. Readings in the literature of speech communication designed to expand opportunities for individual consultation in research and in informational aspects of the students' work.
- 547: Internship.** Advanced practicum in organizational communication in public, private and volunteer organizations.
- 548: Psychoacoustics.** 0-3-3. A study of the experimental areas of audiology that are directed toward developing a theory of auditory functioning. May be repeated one time for credit.
- 555: Externship in Communicative Disorders.** 8 semester hours. 40 contact hours per week. Preq., permission of the instructor. Supervised clinical practicum in an affiliated off campus clinical facility.
- 556: Seminar in Aural Rehabilitation.** 0-3-3. Review of topical areas in aural rehabilitation for the infant through geriatric population.
- 558: Seminar in Amplification.** 0-3-3. A study of recent advances in technology, rehabilitation strategies, and measurement as applied to amplification for the hearing impaired.
- 559: Special Topics.** 1-4 hours credit. Selected topics in an identified area of study in speech and hearing science, audiology, or speech-language pathology.

STATISTICS (STAT)

- 200: Basic Statistics.** 0-3-3. Preq., Mathematics ACT score is greater than or equal to 26, or Mathematics ACT score is greater than or equal to 590, or Placement by Exam, or MATH 101. Sample statistics, frequencies, normal and binomial distributions, point and interval estimation, significance testing, linear regression.
- 400: Introduction to Probability and Statistics.** 0-3-3. Preq., MATH 242. Probability, random variables, discrete and continuous distributions, mathematical expectations, estimation, hypothesis testing, regression, analysis of variance. (G)
- 402: Introduction to Statistical Analysis.** 0-3-3. Preq., MATH 101, junior standing and consent of the instructor; non-COES majors only. Understanding and applying: descriptive statistics, p-values, estimation, significance, regression, correlation. Use of packaged computer programs. (G)
- 405: Statistical Methods.** 0-3-3. Preq., MATH 242, or consent of instructor. Data description, discrete and continuous random variables, inferences about means and variances of populations, categorical data, regression, correlation, analysis of variance, computers in data analysis. (G)
- 506: Regression Analysis.** 0-3-3. Preq., STAT 405 or equivalent. Simple and multiple regression, inferences in regression, model formulation and diagnostics, analysis of covariance, nonlinear models, estimation and inference. Use of computers in data analysis.
- 507: Analysis of Variance.** 0-3-3. Preq., STAT 405 or equivalent. Analysis of variance for standard and unbalanced experimental designs, multiple comparisons, fixed, random, and mixed effects models. Use of computers for data analysis.
- 508: Biometrics.** 0-3-3. Preq., a course in statistics, or consent of instructor. Binomial, and normal distributions, hypothesis testing, regression, correlation, analysis of variance.
- 510: Advanced Statistics For Quality Improvements.** 0-3-3. Preq., STAT 506, 507, or consent of instructor. Least squares, fractional factorials, Taguchi's parameter design, performance criteria, second-order designs, fitting second-order models, exploration of response surfaces, optimization.
- 511: Design of Experiments.** 0-3-3. Preq., STAT 506 or 507 or 508, or equivalent. Factorial and fractional factorial experiments, incomplete block designs, repeated measures, split-plot, response surface, cross-over designs, use of computers for data analysis.
- 520: Applied Probability and Mathematical Statistics.** 0-3-3. Preq., MATH 245, and a 400-level or above STAT course, or consent of instructor.

Probability, random variables, discrete and continuous distributions, joint and conditional distributions, distribution of functions of random variables, expectations, moment generating functions.

- 525: Multivariate Statistics.** 0-3-3. Preq., STAT 506 and 507, and MATH 308, or consent of instructor. Tests of hypotheses on means, multivariate analysis of variance, canonical correlation, principle components, factor analysis, computer applications.
- 530: Nonlinear Models.** 0-3-3. Preq., STAT 506, 507, and MATH 244, or consent of instructor. Parameter estimation, tests of hypotheses, confidence intervals and regions, measures of curvature, use of computer algorithms.
- 548: Theory of Probability.** 0-3-3. Preq., any 500-level STAT course, and MATH 244, or consent of instructor. Combinatorial analysis, conditional probability, distribution theory, random variables, random vectors, limit theorems, random walks.
- 550: Practicum in Statistical Consulting.** 0-1-1 (3). Preq., STAT 506, 507, 511, or equivalent. Working with clients on statistical problems arising in research, such as modeling, design, data analysis and interpretation.
- 556: Time Series Analysis.** 0-3-3. Preq., MATH 245, and STAT 520, or consent of instructor. Spectral analysis, least square filtering, parameter estimation, stationary random processes, ARIMA models, trend and seasonality.
- 606: Linear Statistical Models.** 0-3-3. Preq., MATH 244 and 308, and STAT 506, 507, or consent of instructor. Generalized inverses, quadratic forms, Gauss-Markov theory, estimability, full rank models, non-full rank models, covariance analysis.
- 620: Theory of Probability.** 0-3-3. Preq., any 500-level STAT Course, and MATH 244, or consent of instructor. Combinatorial analysis, conditional probability, distribution theory, random variables, random vectors, limit theorems, random walks.
- 621: Theory of Statistics.** 0-3-3. Preq., STAT 520 or 620 or consent of instructor. Point estimation, interval estimation, statistical hypotheses, statistical tests, nonparametric inference, normal distribution theory.
- 625: Multivariate Statistics.** 0-3-3. Preq., STAT 506 or 507, MATH 308, or consent of instructor. Tests of hypotheses on means, multivariate analysis of variance, canonical correlation, principle components, factor analysis, computer applications.
- 630: Nonlinear Models.** 0-3-3. Preq., STAT 506 or 507, and MATH 244; or consent of instructor. Parameter estimation, tests of hypotheses, confidence intervals and regions, measures of curvature, use of computer algorithms.
- 650: Time Series Analysis.** 0-3-3. Preq., MATH 244, and STAT 506, or consent of instructor. Spectral analysis, least square filtering, parameter estimation, stationary random processes, ARIMA models, trend and seasonability.
- 651: Discrete Markov Processes.** 0-3-3. Preq., MATH 244 and 308, and STAT 520, or consent of instructor. Probability generating functions, Markov chains, renewal processes, Poisson processes, branching processes.
- 652: Stochastic Processes.** 0-3-3. Preq., STAT 520, and MATH 245, or consent of instructor. Birth-death processes, random walks, diffusion processes.
- 680: Topics in Statistics.** 0-3-3 (9). May be repeated for 3 hours credit each time.

STUDY SKILLS (STSK)

- 099: Developmental Orientation and Study Skills.** 0-2-2. Identification and application of practical study techniques and attitudes associated with college success; identification of goals, time management and scheduling. (Pass/Fail)

UNIVERSITY SEMINAR (UNIV)

- 100: Orientation and Study Skills.** 1-2 hour(s) credit. Orients new students to the University and facilitates the identification and application of practical study techniques and attitudes associated with college success; identification of goals, time management and scheduling.
- 101: Academic Skills Enhancement.** 1-3-3. Required if Reading ACT score is less than or equal to 17. Orients new students to the University environment and builds reading and study skills fundamentals, which are essential for success in higher education.