STATISTICS (STAT)

STAT 840 – Stochastic Modeling 3 credit hours
Methods quantifying the dynamic relationships of sequences of random events. Methods studied include Markov chains, Poisson processes, renewal, branching, and queuing, and their applications.
Prerequisite: MATH 305 and MATH 440 and STAT 441

STAT 841P – Probability and Statistics 3 credit hours
Elementary probability theory and statistical applications.
Prerequisite: MATH 260

STAT 842P – Mathematical Statistics 3 credit hours
A continuation of 441/841P. The further mathematical development of special probability densities, functions of random variables, sampling distributions, decision theory, point and interval estimators, hypotheses testing, and covariance.
Department Consent Required
Prerequisite: STAT 241 and permission of instructor

STAT 881 – Statistical Inference I 3 credit hours
A continuation of STAT 441/841P. The further development of probability and distributions, multivariate distributions, some special distributions, and limiting distributions.
Prerequisite: STAT 441 or 841P or equivalent

STAT 882 – Statistical Inference II 3 credit hours
A continuation of STAT 881. The further development of statistical inference, maximum likelihood method, sufficiency, optimal test of hypothesis, noncentral chi-square, multiple comparisons, regression problem, and test of independence.
Prerequisite: STAT 881 or equivalent

STAT 895P – Independent Study 1-3 credit hours
Individual studies and research under the guidance of a faculty member.
May be taken twice for two separate studies.
Department Consent Required
Total Credits Allowed: 3.00