952. Asymptotic Theory
Spring of even-numbered years. 3(3-0)
STT 873; STT 928.
Possible topics include large sample behavior of
likelihood functions, contiguity, Bahadur and
Pitman efficiency of statistical procedures.

953. Advanced Theory of Linear Statistical Models
Fall of even-numbered years. 3(3-0)
STT 873; STT 928 or concurrently.
Possible topics include construction and analysis
of linear models; regression, ridge regression;
optimality criteria, relationships and merits;
existence and construction of optimal designs.

954. Sequential Analysis
Spring of odd-numbered years. 2(2-0)
STT 873; STT 928.
Possible topics include sequential estimation,
testing and design, optimal stopping.

961. Convergence of Measures and Random Variables
Fall of odd-numbered years. 3(3-0)
STT 873; STT 928, or concurrently.
Topology of vague convergence of measures,
Conditions for relative compactness of a set of
measures. Relationships between vague, almost
sure, and in-measure convergence. Donker's theorem
and its extensions; applications to statistics.

962. Martingales
Winter or even-numbered years. 3(3-0)
STT 873; STT 928.
Convergence, sampling, decomposition and
stopping of sub- and super-martingales. Relation­ship
with differentiation of measures. Applications
to sequential analysis and boundary crossing probabilities.

963. Diffusion and Brownian Motion
Spring of even-numbered years. 3(3-0)
STT 873; STT 928.
One dimensional diffusion, speed and drift measures;
local time, stochastic integral, Itô's theorem.

964. Renewal Theory and Random Walk
Fall of even-numbered years. 3(3-0)
STT 873; STT 928 or concurrently.
Renewal events and processes, random walk,
Wiener-Hopf factorization, Tauberian theorem.
Renewal-Type Equations. Branching processes,
birth and death processes.

965. Second Order Processes
Winter of odd-numbered years. 3(3-0)
STT 873, STT 928.
Stochastic processes studied by the methods of
linear spaces. Sample path properties, representa­tives,
estimation, prediction, multiplicity.

966. Semi-Groups and Applications
Spring of odd-numbered years. 3(3-0)
STT 873, STT 928.
Hille-Yosida theorem, processes of independent
increments, infinitely divisible processes, Markov
processes in several dimensions.

990. Problems in Statistics and Probability
Fall, Winter, Spring. Summer 1 to 4
STT 973.
Seminar or individual study on an advanced
topic in statistics.

995. Topics in Statistics and Probability
Fall, Winter, Spring
Nonparametric statistics, multivariate statistical
analysis, statistical time series analysis, Bayesian
statistics, reliability theory, stochastic approxi­mation,
design of experiments, sets of decision problems,
statistical processes, sequential analysis, other topics.

999. Doctoral Dissertation Research
Fall, Winter, Spring, Summer. Variable credit.
Approval of department.

STUDIO ART
See Art.

SURGERY SUR
College of Human Medicine

608. Surgery Clerkship
Fall, Winter, Spring. Summer 1 to 17
May reenroll for a maximum of 34 credits.
H M 602.
An introduction to the surgical patient, stressing
surgical diagnosis, pre-operative evaluation and
post-operative care. Objectives are designed to
help the student attain acceptable levels of
surgical competence for physicians.

609. Otolaryngology Clerkship
Fall, Winter, Spring. Summer 1 to 17
May reenroll for a maximum of 34 credits.
H M 602.
Common otolaryngologic disorders, emergen­cies,
including diagnosis and treatment, and
judgments concerning proper management by
primary physicians.

610. Plastic Clerkship
Fall, Winter, Spring. Summer 1 to 17
May reenroll for a maximum of 34 credits.
H M 602.
Principles of wound healing and tissue repair.
Indications and applications of plastic procedures.

611. Urology Clerkship
Fall, Winter, Spring. Summer 1 to 17
May reenroll for a maximum of 34 credits.
H M 602.
Demonstration of clinical manifestations of
genito-urinary disease, investigative methods
and techniques of diagnosis and management,
familiarity with urologic emergencies and
performance of basic urologic skills.

613. Orthopedic Clerkship
Fall, Winter, Spring. Summer 1 to 17
May reenroll for a maximum of 34 credits.
H M 602.
Diagnostic and management information and
skills, including emergencies, in common ortho­pedic problems.

614. Neurosurgery Clerkship
Fall, Winter, Spring. Summer 1 to 17
May reenroll for a maximum of 34 credits.
H M 602.
A hospital-based experience to provide the student
with familiarity with the field and understand­ing of the contribution of neurosurgery in
medicine generally.

615. Ophthalmology Clerkship
Fall, Winter, Spring. Summer 1 to 17
May reenroll for a maximum of 34 credits.
H M 602.
Development of skills and knowledge in
ophthalmoscopy, neuro-ophthalmology, visual
function, and management of problems such as
glaucoma, the red eye, and trauma.

616. Thoracic Surgery Clerkship
Fall, Winter, Spring. Summer 1 to 17
May reenroll for a maximum of 34 credits.
H M 602.
Problem-solving in thoracic medicine and
surgery, also stressing pulmonary physiology,
use of diagnostic tools and tests, and indications
for surgical procedures.

618. Anesthesiology Clerkship
Fall, Winter, Spring. 4 to 16
May reenroll for a maximum of 16 credits.
H M 602.
Introduces common anesthetic agents and provides
opportunity for performing anesthetic procedures
under faculty supervision.

619. General Surgery Elective Clerkship
Fall, Winter, Spring. 4 to 16
May reenroll for a maximum of 16 credits.
H M 602 and SUR 608.
Experiences in clinical general surgery.

620. Emergency Medicine Clerkship
Fall, Winter, Spring. 4 to 9
May reenroll for a maximum of 8 credits.
SUR 608, PHD 608 or MED 608; H M 602.
Interdepartmental with and administered by the
Department of Medicine.
Pathophysiology and other basic concepts will
be used to explain the development of emergent
conditions. Clinical diagnosis and treatment of
emergencies seen in community emergency
departments will be discussed.

SYSTEMS SCIENCE

See Electrical Engineering and Systems Science.

TELECOMMUNICATION TC
College of Communication Arts and Sciences

120. Telecommunication Media and Society
Fall, Winter, Spring. Summer 3(3-0)
Nonmajors.
History, economics, public control, program­ming,
social effects and future of telecommuni­cation; primarily radio and television broadcast­ing and cable communication. Citizen respon­sibilities in the development of telecommunica­tion systems and services.

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