



**ACTUARIAL SCIENCE 535
"MATHEMATICS OF DEMOGRAPHY"**

Calendar Description: H(3-1T)

Conventional and adjusted measures of mortality; measures of fertility; measures of morbidity; North American demographic characteristics and trends; evaluation of demographic data; projections for stable and stationary populations; actuarial applications of demographic characteristics and trends.

Prerequisite: Actuarial Science 327 and Mathematics 323.

Text: "Introduction to Mathematics of Demography", by R.L. Brown, 3rd edition.

Additional Reading: ACTEX Study Manual for course 161.

Syllabus

<u>Topics</u>	<u>Number of Hours</u>
Data: sources and errors I, II (Chpt 1.1-1-4)	6
Measures of mortality and fertility (Chpt 2)	3
Construction of Life Tables from census data I, II (Chpt 4.1-4.5)	5
Stationary population Theory I, II (Chpt 5.1-5.5)	6
Stable population Theory I, II, III (Chpt 6.1-6.4, Appendix C)	8
Population Projection I, II (Chpt 7.1-7.3)	6
Uses of Census data (Chpt 8)	2
TOTAL HOURS	<u>36</u>
