GRANDE PRAIRIE REGIONAL COLLEGE
DEPARTMENT OF SCIENCE

GN 1970 HEREDITY

COURSE OUTLINE
FALL 1992

COURSE OBJECTIVES:

The principle objective of the course is to gain an understanding of the cellular and molecular basis of the transmission of hereditary characteristics in procaryotes and eucaryotes.

INSTRUCTOR: Dr. David C. Creasey
office: J223 phone: 539-2860

PREREQUISITE: High School Biology 30 (BI 30)

TRANSFERABILITY:

GENET 197	University of Alberta
Jr. BIOL.	University of Calgary
BIOL 2000	University of Lethbridge
BIOL 2xx	Athabasca University
BIO 260	Augustana University College
BIO 197	Concordia College
BIOL 2xx	The King's College

TEXTBOOK: P.J. Russell, Genetics, (3rd ed.), Harper Collins Publishers, New York, 1992.
ISBN 0-673-52143-5

STUDY GUIDE: G. Patt, Problem Solving Guide and Solutions Manual to accompany Russell's Genetics, third edition, Harper Collins Publishers, New York, 1992. ISBN 0-673-52201-6

LAB MANUAL: Genetics 197 Heredity Laboratory Manual 1992-1993 (University of Alberta), William C. Brown Publishers, Iowa, 1992.
ISBN 0-697-20789-7

LECTURES:
PLACE: J226
TIME: Tuesdays & Thursdays 09:30-10:50

LABORATORIES:
PLACE: J126 (Blue Lab)
TIME: L1: Wednesdays 15:00-17:50
L2: Fridays 15:00-17:50

EVALUATION:		
	Assignments	20%
	Mid-Term Test	30%
	Final Lab Test	15%
	Final Course Examination	35%

Students are responsible for all course material in all assignments, tests, and examinations. Late assignments will be accepted up to four days beyond the stated date and time of submission. For each day or part day an assignment is late, a student's mark for that assignment will be reduced by 25% of the total marks available for that assignment.

COURSE DESCRIPTION:

GN 1970 is an introductory course in genetics with emphasis on basic principles of heredity. Laboratory sessions accompany the lectures. The course is comprised of 3 hours of lecture material and 3 hours of laboratory participation each week. Topics will include: historical perspectives; mitosis and meiosis; Mendelian inheritance; genic interactions; genetic linkage; chromosome structure and changes; sex determination; sex-influenced and sex-linked genetics; gene chemistry and DNA structure; DNA replication, transcription, translation; basic microbial genetics; genetic code and gene action; cytoplasmic inheritance; cytogenetics; problem solving techniques; applied statistics. Additional topics may be discussed.

Owing to the introductory nature of the course and the broad concepts involved, STUDENTS ARE ADVISED TO READ TEXT AND ASSIGNED MATERIALS IN ADVANCE OF LECTURES AND LABS.

RESOURCE MATERIAL:

The LRC has many excellent texts and books covering a wide range of subjects in genetics (look in section QH on the second floor). An excellent resource for terminology used in this course is King and Stansfields' A Dictionary of Genetics (fourth edition), located in the reference section of the LRC. Copies of this dictionary are available in the bookstore, but students are not required to purchase the dictionary.

In addition to these holdings, the LRC offers many audio/visual resources for students of heredity, with the necessary machinery to view/hear these resources. Students are strongly encouraged to use all LRC resources.

OTHER CONSIDERATIONS:

In accordance with the rights and responsibilities of the student as outlined in the current academic calendar of this college, students are expected to arrive on time for classes and labs. Students arriving late may not be allowed into that class or lab.