GRANDE PRAIRIE REGIONAL COLLEGE
DEPARTMENT OF SCIENCE AND TECHNOLOGY

COURSE OUTLINE

BT 2100 THE PLANT KINGDOM - VASCULAR PLANTS

INSTRUCTOR: Dr. Joan Snyder
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DESCRIPTION: Bt 2100 is a three credit course consisiting of 3 hours of lectures and a 3 hour lab per week.
The course content includes a comparative survey of vascular plants, focusing on their morphology, classification and phylogeny. Emphasis is on living plant groups with some paleobotanical evidence provided.

PRE-REQUISITES: BI 1080 - ORGANISMS IN THEIR ENVIRONMENT

TEXTS: Morphology and Evolution of Vascular Plants
Gifford, E.M. and Foster, A.S. (1989) 3rd Edition
W.H. Freeman and Company.

BOT 210 Lab. Manual
Dept. of Biological Sciences,
University of Alberta.

EVALUATION:

First Exam	30%
Second Exam	30%
Final Exam	30%
Lab. work	10%
Total	100%

BT 2100 T. . PLANT KINGDOM - VASCULAI LANTS

TOPIC OUTLINE

	Topic	Readings
1	Introduction to the course. What is a vascular plant?	1-10
2	Life cycle of vascular plants.	11-21
3	Vascular tissues - a review.	34-47
4	Origin of Land Plants: Rhyniophytina, Zosterophyllophytina, Trimerophytophytina, *Psilotum, Tmesipteris*	75-88 89-103
5	Stelar evolution - vascular tissues	23-47
6	Homosporous Lycopodophytina - *Lycopodium* Origin of the Microphyll	105-124 49-53
7	Heterosporous Lycopods - *Selaginella*	125-143
8	Heterosporous Lycopods - *Isoetes*	153-173
9	Fossil Lycopods	143-152
10	Sphenophytina - *Equisetum*, Fossil Arthrophytes	176-208
11	Pterophytina (Ferns) - life cycle, origin of the Megaphyll	218-220
12	Eusporangiate Ferns - Marrattiales	231-242
13	Leptosporangiate Ferns - Filicales	245-305, 221-230
14	Heterosporous Ferns - *Marsilea*	305-320
15	Pteridospermophytina - origin of the seed	327-334
16	Progymnospermophytina Earliest seeds, hydrssperman reproduction	334-343 346-348
17	Pteridosperms	349-357
18	Cycadophytina, Cycadeoidophytina	357-381
19	Gnetophytes	456-483
20	Ginkgophytes	385-400
21	Conifer vegetative morphology	401-432
22	Conifer reproductive biology - *Pinus* life cycle	432-448
23	Angiospermophytina - characteristics, life cycle, early fossil record, origin and significance.	486-557
24	Angiosperms - monocots and dicots	563-598, 602-612