



DEPARTMENT OF BIOLOGICAL SCIENCES  
COURSE OUTLINE

1. **Course:** PLANT BIOLOGY 541 – TAXONOMY OF THE SEED PLANTS

Lecture Sections: L01      MWF      12:00-12:50      ST 057      FALL 2014  
Instructor(s):      Dr. C.C. Chinnappa      BI 398      220-7465      ccchinna@ucalgary.ca

Desire 2 Learn (D2L) course name: TBA

Biological Sciences Department BI 186; (403) 220-3140; biosci@ucalgary.ca

2. **Prerequisites:** BOTANY 327 or PLBI 327 See section 3.5.C in the Faculty of Science section of the online Calendar (<http://www.ucalgary.ca/pubs/calendar/current/sc-3-5.html>)

3. **Grading:** The University policy on grading and related matters is described sections F.1 and F.2 of the online University Calendar. In determining the overall grade in the course the following weights will be used:

|  |                 |            |                        |
|--|-----------------|------------|------------------------|
| <b>Plant collection, herbarium preparation, identification</b> | <b>25%</b>      |            |                        |
| <b>Laboratory work - drawings, subjective evaluation</b>       | <b>25%</b>      |            |                        |
| <b>Midterm exam - written</b>                                  | <b>In-Class</b> | <b>15%</b> | <b>(Nov 3rd, 2014)</b> |
| <b>Final exam - lab and written</b>                            | <b>25%</b>      |            |                        |
| <b>Seminar</b>   | <b>10%</b>      |            |                        |

Components of course for which a passing grade is essential - Plant Collection

4. **Missed Components of Term Work:** The regulations of the Faculty of Science pertaining to this matter are found in the Faculty of Science area of the Calendar in [Section 3.6](#). It is the student's responsibility to familiarize himself/herself with these regulations. See also [Section E.6](#) of the University Calendar

5. **Scheduled out-of-class activities:** Dates and times of approved class activities held outside of class hours.

**REGULARLY SCHEDULED CLASSES HAVE PRECEDENCE OVER ANY OUT-OF-CLASS-TIME-ACTIVITY.** If you have a clash with this out-of-class-time-activity, please inform your instructor as soon as possible so that alternative arrangements may be made for you.

6. **Course Materials:** Plants of Kananaskis Country In The Rocky Mountains of Alberta, Hallworth, Beryl & C.C. Chinnappa, 1997. University of Calgary Press / University of Alberta Press.

Flora of Alberta, Moss, G.H. & J.G. Packer. 1983 Revised (2<sup>nd</sup> ed.) Univ. Toronto Press.

7. **Examination Policy:** Students should also read the Calendar, [Section G](#), on Examinations.

8. **Writing across the curriculum statement:** e.g. "In this course, the quality of the student's writing in laboratory reports will be a factor in the evaluation of those reports. See also [Section E.2](#) of the University Calendar.

9. **STUDIES IN THE BIOLOGICAL SCIENCES INVOLVE THE USE OF LIVING AND DEAD ORGANISMS.** See also <http://www.ucalgary.ca/pubs/calendar/current/e-5.html>.

## 10. OTHER IMPORTANT INFORMATION FOR STUDENTS:

- (a) **Academic Misconduct:** (cheating, plagiarism, or any other form) is a very serious offence that will be dealt with rigorously in all cases. A single offence may lead to disciplinary probation or suspension or expulsion. The Faculty of Science follows a zero tolerance policy regarding dishonesty. Please read the sections of the University Calendar under [Section K](#). Student Misconduct to inform yourself of definitions, processes and penalties
- (b) **Assembly Points:** In case of emergency during class time, be sure to FAMILIARIZE YOURSELF with the information on [assembly points](#).
- (c) **Academic Accommodation Policy:** Students with documentable disabilities are referred to the following links: [Calendar entry on students with disabilities](#) and [Student Accessibility Services](#).
- (d) **Safewalk:** Campus Security will escort individuals day or night (<http://www.ucalgary.ca/security/safewalk/>). Call 220-5333 for assistance. Use any campus phone, emergency phone or the yellow phones located at most parking lot pay booths.
- (e) **Freedom of Information and Privacy:** This course is conducted in accordance with the Freedom of Information and Protection of Privacy Act (FOIPP). As one consequence, students should identify themselves on all written work by placing their name on the front page and their ID number on each subsequent page. For more information see also
- (f) <http://www.ucalgary.ca/secretariat/privacy>.
- (g) **Student Union Information:** VP Academic Phone: 220-3911 Email: [suvpaca@ucalgary.ca](mailto:suvpaca@ucalgary.ca).  
SU Faculty Rep. Phone: 220-3913 Email: [sciencerep@su.ucalgary.ca](mailto:sciencerep@su.ucalgary.ca); [Student Ombudsman](#)
- (h) **Internet and Electronic Device Information:** You can assume that in all classes that you attend, your cell phone should be turned off unless instructed otherwise. Also, communication with other individuals, via laptop computers, Blackberries or other devices connectable to the Internet is not allowed in class time unless specifically permitted by the instructor. If you violate this policy you may be asked to leave the classroom. Repeated abuse may result in a charge of misconduct.
- (i) At the University of Calgary, feedback provided by students through the Universal Student Ratings of Instruction (USRI) survey provides valuable information to help with evaluating instruction, enhancing learning and teaching, and selecting courses ([www.ucalgary.ca/usri](http://www.ucalgary.ca/usri)). Your responses make a difference - please participate in USRI Surveys.

Department Approval \_\_\_\_\_ ORIGINAL SIGNED \_\_\_\_\_ Date \_\_\_\_\_

UNIVERSITY OF CALGARY  
DEPARTMENT OF BIOLOGICAL SCIENCES  
COURSE OUTLINE

BOTANY 541  
TAXONOMY OF THE SEED PLANTS  
Fall 2014

SECTION NO: 01

TERM:

PREREQUISITE(S): Botany 327 or PLBI 327

A student may not register in a course unless he has a grade of at least C- in each prerequisite course.

COURSE COORDINATOR: Dr. C.C. Chinnappa

LECTURER: Dr. C.C. Chinnappa BI 398 220-7465 ccchinna@ucalgary.ca

LECTURES: MWF 1200 hr 50 min. ST 057

LABS: R 1500 hr 170 min. BI 013

TEXT: Required: Plants of Kananaskis Country In The Rocky Mountains of Alberta, Hallworth, Beryl & C.C. Chinnappa, 1997. University of Calgary Press / University of Alberta Press.

Recommended: Flora of Alberta, Moss, G.H. & J.G. Packer. 1983 Revised (2<sup>nd</sup> ed.) Univ. Toronto Press.

MARK DISTRIBUTION: A. Composition of Final Grade

|   |     |
|---|-----|
| Plant collection, herbarium preparation, identification | 25% |
| Laboratory work - drawings, subjective evaluation       | 25% |
| Midterm exam - written                                  | 15% |
| Final exam - lab and written                            | 25% |
| Seminar   | 10% |

B. Final Exam  
There will be a final examination scheduled by the Registrar's Office.

C. Components of course for which a passing grade is essential  
Plant Collection

A study of the morphology and taxonomy of seed plants in relation to classification, phylogeny and evolution. An introduction to taxonomy, nomenclature and identification of flowering plants. Students are required to make a plant collection of 50 plant specimens in the preceding summer. Plant press and collection books should be obtained from the Herbarium (BI 013).

## TENTATIVE LECTURE SCHEDULE

| <u>Topics of Lectures and Discussion</u>   | <u>Number</u>           |
|--|-------------------------|
| Sympetaly and Evolution of Zygomorphy<br>Evolution Variation and Biosystematics<br>Flora of British Columbia and Alberta, plant ID | 10                      |
| The Primitive flowers<br>History and principles of Taxonomy  | 4                       |
| Development of Perigynous<br>Flowers evolution of Epigyny<br>Taxonomic Literature<br>Flora of Alberta, plant ID                    | 6                       |
| Evolution of wind pollination<br>Plant Nomenclature<br>Flora of Alberta, plant ID  | 4                       |
| Grasses, Sedges and Rushes   | 6                       |
| <b>MID TERM</b>  | <b>November 3, 2014</b> |
| The Asteraceae<br>Taxonomic Evidence<br>Flora of Alberta and N.W.T., plant ID  | 3                       |
| Orchids, Milkweeds, some specialization and<br>Unusual flowers   | 2                       |

## BOTANY 441 LAB SYLLABUS

| <u>Lab#</u> | <u>Lab Topic</u>  |
|-------------|---|
| 1           | The Primitive Flower  |
| 2           | The Primitive Flower  |
| 3           | Development of Perigyny Epigyny   |
| 4           | Development of Perigyny and Epigyny   |
| 5           | Evolution of Wind Pollination:<br>Spring Flowering Trees                            |
| 6           | Grasses, Sedges and Rushes  |
| 7           | Grasses, Sedges and Rushes  |
| 8           | Sympetaly and the Evolution of Zygomorphy   |
| 9           | Sympetaly and the Evolution of Zygomorphy   |
| 10          | The Asteraceae (Compositae)   |
| 11          | Orchids and Milkweeds<br>Some Specialized and Unusual<br>Flowers and Inflorescences |
| -           | <u>Lecture and Laboratory Exam</u>  |

### GRADING SCALE

| Letter Grade | Cut-Off        |
|--------------|----------------|
| A            | = 86           |
| B+           | = 76           |
| B            | = 72           |
| B-           | = 68           |
| C+           | = 64           |
| C            | = 60           |
| C-           | = 56           |
| D+           | = 55           |
| D            | = 51           |
| D-           | = 47           |
| F            | = 43 and below |