**DENDROLOGY DUAL ENROLLMENT **

***Reedley College – Agriculture and Natural Resources Department***

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***YouthBuild Charter School of California (Fresno Site)***

***Course Syllabus NR-6-59502 – FALL 2018***



**Course Name and Section: NR - 6 -59502 – DENDROLOGY**

**Class Meeting Time and Place: Lecture 8:00 AM - 9:50 AM (MTW) - Room 402**

 **Laboratory 8:00 AM – 9:50 AM (Th, F) Room 402**

 **Fieldtrip 8:00 AM – 2:30 PM (F)**

**Instructor: Anette B, Gamit**

 Office: YouthBuild Charter School of CA (Fresno Site)

 Phone: (559) 263-8930, Ext. 8938

 Office Hours: Friday 3:00 PM – 4:00 PM, other times by appointment

 **Email:** **agamit@youthbuildcharter.org**

 **anette.gamit@reedleycollege.edu**

**Course Prerequisites:** none **Units:** 3

**Holidays:** Holidays will be observed as per the State Center Community College District Schedule and YouthBuild Charter School of CA.

**Final Exams:**

* Laboratory Final Exam (Move Test) – Nov. 28, 2018 8:00am – 9:50am (Room 402**)**
* Lecture Final ExamThursday, Nov. 29, 2018 8:00am – 9:50am (Room 402)

**Textbook and Required Materials:**

Hardin 2001 Textbook of Dendrology – **Required**

Stuart2001 Trees and Shrubs of California -- **Required**

Elpel 2006 Botany in a Day -- **Required**

Paruk 1997 Sierra Nevada Tree Identifier -- **Optional**

Gerstenberg 1983 Common Trees and Shrubs of the Sierra Nevada -- **Optional**

Schoenherr 1992 A Natural History of California – **Optional**

Jepson 1993 The Jepson Manual Higher Plants of California - **Optional**

**Course Description:**

* The study of the ranges and botanical characteristics of the major natural trees and shrubs in the Western United States. Frequent field trips that may extend beyond scheduled lab hours are required.

**Course Objectives:**

* Provide the student with an intensive and broad experience with respect to knowledge of trees for majors in botany and other biological sciences.
* Introduce students to plant communities of California and to develop competence in identifying and utilizing common trees and shrubs of the region.
* Gain knowledge and skills using plant keys and preparing plant collections.

**Classroom Conduct:**

* Strictly follow ***CAMPUS RESPECT AGREEMENT***

All students are expected to act in a mature manner that respects their fellow students, the instructor/staff, any guest presenters and the environment. Please turn cellular phones, pagers and all other electronic devices **off** during class time. **No** phone charging, food, tobacco products, or anything that might cause distraction during class.

**Cheating and Plagiarism:**

Cheating and plagiarism are serious offenses and will not be tolerated. Students shall comply with Board Policy 5410; each student is expected to exert an entirely honest effort toward attaining an education. Violations of this policy will result in failing grade on an assignment and/or the entire course.

**Accommodation Statement:**

If you have a verified need for an academic accommodation or materials in alternate media (i.e., Braille, large print, electronic text, etc.) per the Americans with Disabilities Act (ADA) or Section 504 of the Rehabilitation Act, please contact me as soon as possible.

**Reedley College & YouthBuild Policies:**

To receive a grade for this course, students must complete and have active participation in all assigned work (lectures, laboratory, and fieldtrips) and Authentic Performance Task Project (APT). Make-up exams must be taken within **one week** following the scheduled exam. Quizzes are short, and designed to show that you are keeping up with the reading. If quiz is missed due to absence, it will not be allowed to be made-up. Quizzes may be announced or unannounced.

**Attendance and Grading Policy:**

If you miss a lecture, you are responsible for obtaining notes/assignment from a classmate or attend Study Hall after school. Success in this class depends on the presence and active participation of each student; therefore, you are expected to attend every class. Your participation record will be considered when assigning your final grade. **If you miss class >6 times during the semester (without a valid reason) you may be dropped from the course**. If class is canceled students will be notified via email and a note on classroom door. Individual exam grades may be curved and final grades will be assigned based on a straight percentage system according to the following scale:

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| --- | --- | --- | --- |
| **Course Grade** | **Cumulative Percent** | **Breakdown of Grades** | **Percentage** |
| ABCDF | 90-10080-8970-7960-69<59 | QuizzesMidterm Exams x 2 Plant Collection/FieldtripsLecture Final ExamLaboratory Final ExamParticipation/Attendance/Projects/Greenhouse Maintenance | 15%20%15%15%20%15% |
|  |  |  **TOTAL** | **100%** |

**Fieldtrips:**

 There may be several required fieldtrips taken during the semester. These trips will generally be taken during scheduled lab times but **we may sometimes need to leave prior to or return to campus after the schedules class time.** You should make every effort to coordinate in advance with your teacher if this occurs.

**NOTE:**

* *If you do not attend a fieldtrip that occurs outside of a regularly –scheduled laboratory or lecture you will be expected to submit an alternate assignment.*
* *Always come prepared to go outside during laboratory activities. “Being prepared” means to wear hiking boots or work boots, wear long pants, and to bring other items such as water, food, bug repellant, rain gear (even if there is a slight chance of rain), warm clothes, and a plant collection bag and hand shears.*

**Required Material and Equipment:**

 You will need botany paper and mounting supplies for a herbarium plant collection. You should have hand shears to collect plant samples and a large plastic bag on all fieldtrips.

Tentative Lecture & Lab Schedule: Note: exact order of topics may vary depending upon scheduling of speakers and availability of necessary resources.

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| **WEEK** | **LECTURE TOPIC/ACTIVITIES** | **LABORATORY TOPIC/ACTIVITIES** |
| **WEEK 1**Aug. 20 - 23, 2018 | **Chapter 1 - INTRODUCTION*** Orientation
* Introduction to Dendrology
* Dendrology Terminology
* Structure & Function: Tree Anatomy/Morphology

**Chapter 2 – CLASSIFICATION*** Taxonomy Principles/Categories (Species, Infraspecific Taxa, Superspecific Categories)

**Chapter 3 –** **NOMENCLATURE*** Common or Vernacular Names
* Scientific Names (Derivation and Pronunciation of Scientific Names)
* ***Quiz # 1***
* **Fieldtrip\***
 | * Nomenclature & Taxonomy/Morphology
* Tree mapping Campus Walk
* Microscopy
* CNC’s
* Dendrology/Botany Appreciation (Dish Gardening)
* Pressing Plant Parts and Preservation
 |
| **WEEK 2**Sept. 3 – Sept. 7, 2018  | **Chapter 4 – IDENTIFICATION*** **Keys to Genera**

**Chapter 5 – VARIATION*** **Types of Variation (Intrinsic and Extrinsic)**

**Chapter 6 - PHYTOGEOGRAPHY, CLIMATE & DISTRIBUTION*** Characteristics & Distribution of Important Species by Plant Families
* Habitat
* Range
* Communities
* ***Quiz # 2***
 | * Keying: Leaf/Twig/bark/Flower/Fruit Character States
* Microscopy
* Building Terrariums/Presentation
* Greenhouse /Community Garden
* Fieldtrip
 |
| **WEEK 3**Sept. 17 - 20, 2018 | **Chapter 7 – VEGETATIVE AND REPRODUCTIVE MORPHOLOGY*** Tree Architecture
* Classification
* Structure & Function: Vegetative Growth: Habit, Leaves, Twigs, Barks
* Structure & Function: Reproduction, Pollen and Pollination
* Angiosperms

\*Magnoliophyta\*Liliopsida* Gymnosperms

\*Cycadales\*Ginkgoales\*Taxales\*Pinales* ***Midterm preparation and Exam 1***
* **Fieldtrip\***
 | * Site Plant Collection, Identification, Propagation & Pressing and Preservation
* Building Terrariums/Presentation
* Greenhouse /Community Garden Maintenance
* The Power of Words on Plant Vegetative Growth & Reproduction
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| WEEK 4Oct. 1- 5, 2018 | **Chapter 8 - INTRODUCTION TO WOOD ANATOMY & IDENTIFICATION*** Twig Growth
* Plant Cells & Tissues
* Plant Transport
* Vascular Cambium & Wood Cells
* Variations of Conifer Wood
* ***Quiz # 3***
 | * Microscopy (Angiosperms & Gymnosperms)
* Conifers Collection & Propagation
* Collection, Identification &Propagation of primitive Plants (mosses, ferns, bryophytes)
* Framed Botanicals
* Fieldtrip
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| WEEK 5Oct. 15 - 18, 2018 | **Chapter 9 - INTRODUCTION TO WOOD ANATOMY & IDENTIFICATION*** Softwood Genera
* Variations in Angiosperm Wood
* Hardwood Genera
* Broadleaves plants of CA
* Wood Utilization
* ***Midterm preparation and Exam 2***
 | * Collection, Identification of Softwood and Hardwood ( plant species & wood samples)
* Dried Plant Parts/Arrangement
* Leaf Propagation
* Greenhouse /Community Garden Maintenance
* Overdipped Candle Plant Parts
 |
| WEEK 6Oct. 29 – Nov. 2, 2018 | **Chapter 10 - INTRODUCTION TO PLANT ECOSYSTEM/HABITAT & RANGE*** Biomes and Species
* Forest Biomes
* Coastal Biomes
* Chaparral Biomes
* Pharmaceutical/medicinal Plant Species Research
* ***Quiz # 4***
* **Fieldtrip\***
 | * Collection and Identification of Plant Species in different biomes
* Asexual and Sexual plant propagation
* Greenhouse/Community Garden Maintenance
* Decorative Plant Parts Containers
* Fieldtrip
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| Nov. 12 – 23, 2018 | **FALL BREAK** |  |
| WEEK 7 Nov. 26 – 30, 2018 | **Chapter 11 & 12 – FOREST, FOREST MANAGEMENT & FINAL WEEK*** Forest Ecology & Conservation
* Forest Management

Review for Plant Identification for Laboratory Final Exam (Move Test)* ***Lecture Final Exam (Nov. 29, 2018)***
* Completion of High School APT’s and requirements
* Presentation of Plant Collection project
 | * Diorama of a Forest and Conservation and Presentation
* Pomanders
* ***Laboratory Final Exam***

Plant Collection Project– due Thurs (Nov. 28, 2018)* Decorating Wire Forms with Plant Parts
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