**SUS 351: Permaculture Design II**

**Synonym Number: 19249**

**Summer 2019**

**4 credits**

****

1. **Course Information:**

|  |  |
| --- | --- |
| *Meeting Time and Day*: 9:00-4:00 June 27-30, July 12-14, and August 1-4; includes a two-night field trip to multiple Front Range sites July 12-14. Field trip includes camping and in-depth aquaponics instruction. | *Prerequisites:* SUS 350 OR previous Associate's or Bachelor's degree OR junior standing OR permission of instructor. |
| *Start Date:* 06/27/19 | *Class Location:* Bristol Hall 220 |
| *Refund Date:* 07/02/19 | *End Date:* 08/09/19 |
|  | *Withdraw Date:* 07/26/19 |

**Instructor Information**:

|  |  |
| --- | --- |
| *Name:* Tina Evans  *Phone:* 970-870-4517 (prefer e-mail)  *E-mail:* tevans@coloradomtn.edu  *Office:* Bristol Hall 109 (enter through room 111)  *Office Hours:* by appointment | *Name:* Kris Holstrom  *Phone:* 970-708-0289  *E-mail:* kholstrom@gmail.com  *Office:* virtual office  *Office Hours:* by appointment |
| *Name:* Tracey Urbick  *Phone:* 970-870-4451  *E-mail:* turbick@coloradomtn.edu  *Office:* Library,Bristol Hall  *Office Hours:* by appointment |  |

1. **Required Course Materials:** CMC Steamboat has chosen to participate in a flat rate access fee program for course materials so that every student has all of the required textbooks the first day of class based on a library-like access model. All student textbooks and digital access codes will be provided at the start of the semester. Course texts may be picked up at the campus store, Steamboat Academic Center, third floor.

The following text is required for this course:

Bane, P. (2012). *The permaculture handbook*. Gabriola Island, BC, Canada: New Society. ISBN: 978-0-86571-666-7.

Additional course materials will be made available via the Internet or Canvas. This material will be listed in the weekly modules within Canvas. As the course progresses, we may alter the readings to better address/explore a topic/area of interest/concern. Any such changes will be reflected in Canvas at least one class period prior to the originally assigned date, and students will be notified during class of any such changes.

1. **Course Description:** Students in this course will deepen and extensively apply their understanding of permaculture principles and practices. They will gain practical skills in building healthy and productive soils, water harvesting and water management for garden and landscape health, ecological pest control, and the development of beautiful, sustainable, and food-productive landscapes. The course is heavily project-based, calling upon students to design and implement advanced applications of permaculture principles in a culminating project. This course is the second in a two-course sequence that comprises the Permaculture Design Certificate program.

Prerequisite: Completion of Permaculture Design I (SUS 350) with a grade of C- or higher.

1. Topical Outline:

The course will address the following subjects, though not necessarily in the following order.

1. Brief review of principles of natural systems and design.
2. Designing from patterns to details.
3. Soil building, soil structure, and soil health.
4. Water cycles and water management in the landscape.
5. Designing integrated and diverse gardens and food forests.
6. Seeds and propagation of garden stock.
7. Domestic animals in the permaculture system.
8. Wildlife management for the garden and food forest.
9. Biological pest control.
10. Incorporating beneficial species for garden and landscape health.
11. Buildings and structures in the permaculture landscape.
12. Designing and using appropriate energy and materials conserving technology.
13. Waste reuse, recycling, and disposal.
14. Designing the permaculture community.
15. **Student Learning Outcomes, Competencies, and Skills:**

Through successful completion of this course, the student will:

1. Demonstrate an in-depth understanding of permaculture principles and their applications.
2. Effectively apply permaculture principles and practices in a substantial culminating project. The project must include aspects of both design and implementation of permaculture.
3. **IDEA Objectives**: In addition to the above learning outcomes, you can be expected to achieve the following competencies—provided that you participate fully in the course and complete all requirements:

Objective #3: Learning to apply course material (to improve thinking, problem solving, and decisions).

Objective #4: Developing specific skills, competencies, and points of view needed by professionals in the field of permaculture.

Objective #5: Acquiring skills in working with others as a member of a team.

Objective #6: Learning to apply course material (to improve thinking, problem solving, and decisions).

Objective #9: Learning how to find and use resources for answering questions or solving problems.

1. **Evaluation Methods and Class Management:** Your education depends on both your instructor’s creation of a learning environment and your engagement with the course experience. You are required to read the assigned readings **prior** to each class session; be prepared to discuss and apply relevant ideas and concepts in class. Please try to avoid entering class late or leaving early because doing so disrupts the class. Here are some general guidelines to help you understand the structure of this course, the expectations we have of you, and what you can expect from us.

* We will be using the following online tool as primary means of communication: Canvas, CMC’s chosen e-learning tool, will provide an online site for our course. This is where you will find course announcements, assignments, and more. We will provide an overview of Canvas during the first class.
* Most written assignments must be turned in via Canvas, which means they must be word processed.
* Your CMC e-mail address is considered to be an official means of contacting you about this course. Therefore, you are expected to check your CMC e-mail regularly.
* We may choose to alter the course material as the term progresses. These changes will be conveyed to you in class and reflected in Canvas. Any such changes will be finalized by the date they are assigned.
* Late assignments will be docked one full grade (10%). No assignments will be accepted following August 4, the day of our last class meeting.
* If you need to miss a class, please notify us as soon as you are aware of this to make arrangements to get the course material and make up any missed activities. Course participation is a significant part of your grade, and being in class will influence your level of success in this course. Since we have only eleven class days together this term, missing even one class is strongly discouraged.
* Please do not expect us make course accommodations for you so that you may engage in personal travel (vacations, travel for concerts, etc.). If you choose to miss class for personal travel or other personal reasons such as work, you are expected to use Canvas to keep up with course readings and assignments. Do not expect us to review with you the material you missed in class. You also will not have an opportunity to make up in-class work or participation credit.
* This course is designed to help you learn and apply foundational knowledge about permaculture as a vehicle for sustainability, but it is your own efforts in this process that matter the most. Stay current with course readings and other requirements, and come to class ready to engage in stimulating discussions and hands-on projects with your classmates.
* For every class meeting, you must be prepared to work outdoors. Please wear comfortable clothes that you’re not worried about getting dirty. Bring work gloves (leather ones are the most durable and protective), a sun hat, sunscreen, water, and anything else you might need when working outdoors in the summer.
* **Our lunch breaks will typically last only 45 minutes, so you are encouraged to bring a sack lunch each day.**

Your grade in this course will be determined by in-class exercises and participation, individual and team research and design work, and field activities in which course concepts are observed and applied. Class participation and involvement in the discussions and applied learning exercises and projects are part of your grade.

Grade % Quality Points

A 93.5%-100% 4.0

A- 89.5%-93.4% 3.7

B+ 86.5%-89.4% 3.3

B 82.5%-86.4% 3.0

B- 79.5%-82.4% 2.7

C+ 76.5%-79.4% 2.3

C 72.5%-76.4% 2.0

C- 69.5%-72.4% 1.7

D+ 66.5%-69.4% 1.3

D 62.5%-66.4% 1.0

D- 59.5%-62.4% 0.7

F below 59.5% 0.0

Final grades will be assessed as follows:

Activity: Points: Percent:

**Class Participation 100 10%**

**In-class and Field Exercises 250 25%**

**Front Range Field Trip Exercises 150 15%**

**Intersession Design Project 150 15%**

**Guild Making in Bear Park 100 10%**

**Bear Park Design Project and Presentation 250 25%**

**Semester Total: 1000 100%**

**Class participation: 10% of final grade:** The success of this course—for you and for your classmates—depends largely on your commitment to attending, preparing for, and participating in class. Readings will be assigned as preparation for class sessions—do them! If you don't, you'll be lost in class, and class discussions will suffer markedly, impacting the learning of others as well. Also, since class participation constitutes a high proportion of your final grade, your grade will suffer if you continually lag behind in or don't complete readings, if you skip classes, or if you neglect to participate in hands-on class exercises, projects, and field trips. That said, you will not necessarily be graded on the *quantity* of your participation. Having a great amount of poor quality, uninformed participation is not beneficial to you or to the class and will not result in a high grade for class participation. As one gauge of your class participation, we will take attendance at every class meeting.

* *Addresses learning outcomes 1-2 and IDEA objectives 3-6 and 9.*

**In-class and Field Exercises, 25% of final grade:** Significant portions of our classes will consist of developing and/or applying permaculture design principles and practices. For every class session, be prepared to learn through observation, discussion, and hands-on work. Be sure to wear/bring everything you need to work outdoors and in the classroom. Be ready to spend time in the sun doing physical work, take notes, do research, draw, and take photos (if you have the equipment to do so). If you have a tablet or laptop computer, it is highly recommended that you bring it to class.

* *Addresses learning outcomes 1-2 and IDEA objectives 3-6 and 9.*

**Guild Making in Bear Park: 10% of final grade:** During our first block session, you will develop propose and implement designs for a guild in Bear Park. Details of this in-class project will be discussed in class and available in Canvas.

* *Addresses learning outcome 1-2 and IDEA outcomes 3-6 and 9.*

**Front Range Field Trip Exercises, 15% of final grade:** Our second block of class meetings will consist entirely of a two-night, three-day field trip to the Front Range. In class, we will plan the logistics of our travel. Please plan on camping out and supplying your own breakfasts and sack lunches for the trip there and back and for the time during our stay. You will have an opportunity to eat dinners out in Denver if you so desire, or you can bring your own dinner supplies as well. Please plan carefully as we do not want to be stopping a grocery stores multiple times during our trip. During this field trip, be prepared to learn through observation, discussion, and hands-on learning exercises. Be sure to wear/bring everything you need to camp out, work outdoors, take notes, and take photos (if you have the equipment to do so). Remember that nights sleeping outdoors in Colorado can be cold, even in summer!

* *Addresses learning outcome 1 and IDEA objectives 3-6.*

**Intersession Design Project: 15% of final grade:** In between our first and final block of class sessions, you will research design possibilities for Bear Park and present your research and ideas to the class during our last block session in August. Possibilities for what to research and specific requirements of this assignment will be available in Canvas and discussed in class.

* *Addresses learning outcome 1-2 and IDEA outcomes 3-6 and 9.*

**Bear Park Design Project and Presentation: 25% of final grade:** During our final block session in August, you will participate as part of a group to create a proposed design for a significant area of Bear Park. This is the culminating project for our course, and it will require observation, research, integration of permaculture ethics and principles, teamwork, application of visual design methods, articulation of design ideas and concepts, and a public presentation of your work. Your instructors will work with you along the way, serving as resources for you to complete this project. Materials needed for visual designs will be supplied in class. All or part of the design your team develops may be implemented at Bear Park in the near future.

* *Addresses learning 1, 2, and 3 and IDEA outcomes 3-6 and 9.*

**Extra Credit:** We may identify in class and/or via Canvas opportunities to earn extra credit. All such opportunities will be open to all students.

1. Information for You as a CMC Student:
2. Academic honesty: plagiarism is not acceptable in this class. Plagiarism occurs when you use someone else’s work, do not cite them for their work, and claim such work as your own. Plagiarism is considered academic misconduct and will be treated as such as defined in the “Academic Policies and Requirements” section of the *Colorado Mountain College Student Handbook*.
3. A student judged to have engaged in academic misconduct as defined in the “Academic Policies and Requirements” section of the *Colorado Mountain College Student Handbook* will, at a minimum, receive a “zero” for the work in question. The student may also be removed from the class, resulting in a failing grade. All student course material may be submitted to Feedback Studio (or another anti-plagiarism program) at the instructor’s discretion. “Academic Expectations,” the “Student Code of Conduct and Judicial Process,” and more information about academic misconduct can be found in the student handbook.
4. Students are responsible for course materials from assigned text(s) and reading, lectures, labs, and other assignments as required.
5. Students wishing to withdraw from this course must **initiate** the course withdrawal/drop process at the site Registration Office.
6. Grades will be posted to <https://webadvisor.coloradomtn.edu/> by the Friday following the last day of classes at the end of each semester.
7. Attendance and early engagement are important elements for your success in this course. All students who do not attend the first class(es) or meet early attendance requirements must be reported by the instructor to the Registrar’s Office. Financial aid recipients or students receiving veteran’s benefits who do not attend the first class(es) or meet early attendance requirements will be dropped from the course and may not receive financial assistance (<http://coloradomtn.edu/financial_aid>).
8. Students with Disabilities (<http://coloradomtn.edu/admissions/disability_services/>): If you have a disability protected by the Americans with Disabilities Act (ADA) and Section 504 of the Rehabilitation Act and feel you may need classroom accommodations based on the impact of your disability, please contact the Disability Services Coordinator: Elisha Colson, 970-870-4450.
9. Title IX Sexual Misconduct Contact Information: Colorado Mountain College is committed to the prompt and equitable investigation of all Sexual Misconduct complaints or reports, with appropriate remediation where it has been determined that CMC policy has been violated. Each campus has a designated Deputy Title IX Coordinator to handle any reports of Sexual Misconduct or discrimination. Deputy Title IX Coordinator contact information:
   * **College/Employee Deputy Title IX Coordinator:** Lisa Doak, AVP of Student Services, 970-947-8351; [ldoak@coloradomtn.edu](mailto:ldoak@coloradomtn.edu).
   * **Campus Deputy Title IX Coordinator:** Associate Dean for Student Affairs, Carolyn Lawrence: 970‐870‐4463; [cmlawrence@coloradomtn.edu](mailto:cmlawrence@coloradomtn.edu).
10. **Tentative Class Schedule:** A course schedule is available in Canvas. This outline is tentative and many be modified during the semester as needed. You will be notified of any changes both in Canvas and in class.
11. Use of Equipment:

In this course we will be working in a variety of environments and utilizing a variety of equipment that may cause harm to you or others around you. Students will learn basic skills with regard to equipment that will be used in permaculture work. Please do not use equipment you are not familiar with or are uncomfortable using. Instructors are willing to teach and assist you with using equipment and with any concerns you may have during this course.

1. Virtual Library Information:[**http://coloradomtn.edu/library**](http://coloradomtn.edu/library)

The Virtual Library has its doors open 24/7, providing access to thousands of online journals and newspapers, e-books and art images, downloadable videos and audiobooks, career resources, and practice tests.

**Login Instructions:** Use the CMC Libraries link from Canvas course menu to access the CMC libraries web site. The link will pass authentication credentials to the server that will allow you to use online library collections. It will also take you directly to the libraries’ home page.

**Ask a Librarian:** If you need assistance with your research project, you can ask a librarian online. Select the AskAcademic chat box on the libraries’ home page, and type in your question. This service is available 21 hours a day, 7 days a week. You can also email [reference@coloradomtn.edu](mailto:reference@coloradomtn.edu) or call the library staff at 800-621-8559, extension 2926.