**SUS 350: Permaculture Design II**

**Synonym Number: 06342**

**Summer 2017**

**4 credits**

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**I. Course Information:**

*Meeting Time and Day*: 9:00-4:00 Sunday-Wednesday, June 11-14;

Friday-Monday, July 14-17; and Friday-Sunday, July 28-30. *Class Location:* Bristol, 220

*Start Date:* 06/01/17 *End Date:* 08/09/17.

*Refund Date:* 06/12/17 *Withdraw Date:* 07/22/17

# *Prerequisites:* SUS 350 ANDSUS-300 or SUS-301 (SUS-300 or SUS-301 courses may be taken concurrently if neither course has been previously completed with a grade of C- or better) OR previous Associate's or Bachelor's degree OR junior standing OR permission of instructor.

**Instructor Information**:

*Name: Tina Evans*

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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 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. 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 1, 2017, two days after 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.
* 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.
* A note on 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*.
* **Our lunch breaks will typically last only 45 minutes, so you are encouraged to bring a sack lunch each day.**

Grades will be assessed as follows:

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

**Class Participation 15% of final grade**

**In-class and Field Exercises 25% of final grade**

**Tomten Field Trip Exercises 15% of final grade**

**Intersession Design Project 15% of final grade**

**Bear Park Site Feature(s) Design 10% of final grade**

**Bear Park Overarching Design and Presentation 20% of final grade**

 **Semester Total: 100%**

**Class participation: 15% 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 would be a good idea to bring it to class.

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

**Tomten Farm Field Trip Exercises, 15% of final grade:** The first three days of our second block of class meetings will consist entirely of a two-night field trip to Tomten Farm on Hastings Mesa near Telluride, Colorado. Tomten Farm is the home of a long-term, extremely high-altitude production, experimentation, and education permaculture site that includes both indoor and outdoor growing spaces, animals, and great camping and kitchen spaces for visitors. Please plan on camping out and supplying your own sack lunches, breakfasts, and dinners on the way there and during our stay. There is not a town or store nearby to Tomten, so please plan carefully! In class, we will plan the logistics of our travel. During this field trip, be prepared to learn through observation, discussion, and hands-on learning exercises and work. 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 at high altitude in Colorado can be very 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 second block sessions in June and July, you will research design possibilities for Bear Park and present your research and ideas to the class on the last day of our second block session. Prepare your work in advance of the start of this block session as the initial days of the session will be taken up entirely with our field trip to Tomten Farm. 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 Site Features Design: 10% of final grade:** During our final block session, you will develop proposed designs for one to two small-scale features of Bear Park and present your ideas to the class. All or part of the design(s) you develop may be applied at Bear Park this summer or fall. 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.*

**Bear Park Overarching Design and Presentation: 20% of final grade:** At the end of our final block session in July, you will participate as part of a group to create an overarching proposed design for Bear Park. This is the culminating project for our course, and it will require observation, research, 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 123 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.

**Notice:** 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 turnitin.com (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*.

Students are responsible for course materials from assigned text(s) and reading, lectures, labs, and other assignments as required. The instructor may alter any, or all, of this syllabus during the term as the learning environment requires. Students will be notified in writing of changes. Attendance at all class meetings is expected.

**Attendance and No-show Reporting:** 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 students 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**](http://coloradomtn.edu/financial_aid)).

1. Students with Disabilities and/or Physical Limitations: 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 for our campus: Deb Farmer at 970-870-4450.

If you have a physical limitation that may interfere with your ability to do hands-on coursework (for example, a bad back, knee problems, etc., that could prevent your from lifting, digging, bending, kneeling, etc.), *please let us know!* We will do our best to involve you in class projects in ways that do not threaten your physical health.

1. 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 regards 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. Withdrawal from this Course:

Students wishing to withdraw from this course must INITIATE the course withdrawal/drop process at the site Registration Office.

1. Grading System and Options**:**

Information about grading is available in the Colorado Mountain College catalog. Grades will be posted to <https://webadvisor.coloradomtn.edu/> (WebAdvisor) within a few days following the last day of classes.

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, I 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. **Other Information:** A course outline/schedule is available in Canvas. This outline/schedule is tentative and many be modified during the term as needed. You will be notified of any changes.

**XI. Virtual Library Information: <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 a 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 or call the library staff at 800-621-8559, extension 2926.