### **CSS 215 - Soil Nutrients and Plant Fertilization**

**Instructor**: Melissa Scherr **Course Format:**

Office: WOH 210 Lecture: MW 11AM–11:50 IA201A Email: scherrm@linnbenton.edu Lab: W 1PM-2:50PM WOH 122

Phone: 541-917-4685 Credits: 3

**Office Hours:** MW 9:30 -10:30am

Please contact me via email to make a special appointment outside of these office hours (please allow 48 hours advance)

***Welcome****.*

Soils 215 introduces the essential soil nutrients and their use in agronomic and horticultural crops. Processes in soil nutrient supply and plant nutrient uptake are discussed. Students become familiar with common synthetic and organic fertilizers and soil amendments and learn how to apply fertilizers using various application methods. Environmentally sound use and holistic management of agricultural nutrients are emphasized.

**Course Outcomes**

Upon the successful completion of this course students will be able to:

* Describe the function and cycling of essential plant nutrients
* Determine nutrient requirements based on crop needs, soil properties and environmental situation
* Establish appropriate fertilizer and soil amendment types and rates for common agronomic and horticultural crops

**Course Materials**

1. Elements of Nature and Properties of Soil, (3rd Edition), Prentice-Hall, 2009.
2. [Building Soils for Better Crops](https://www.sare.org/Learning-Center/Books/Building-Soils-for-Better-Crops-3rd-Edition) (free download online; hardcopy available for purchase)
3. Soils: Soil Nutrients and Plant Fertilization -CSS 215- Lab Manual Packet (available at the LBCC Bookstore)
4. 3-ring binder

\*\*Additional readings in the Moodle course management system, on-line, on reserve in the library, or from class handouts will be announced in class.

**Students must be enrolled in Moodle (**[**http://elearning.linnbenton.edu**](http://elearning.linnbenton.edu)**) and have up-to-date personal profile (for contact information and e-mail).**

**Moodle**: To access the Moodle component, go to the Linn-Benton website at:<http://www.linnbenton.edu/>, Select ***Quicklinks***

> Scroll down and select (Moodle) – right hand side of screen.

> Create Account (if necessary). See yellow hi-lighted area in middle of the page.

> Login with UserName and Password

> On the left hand panel: Click on the respective course under “My Courses”

> You may need to expand the folder by clicking on the “+” symbol.

> Click on BI: Biology>Select BI211\_MS to enter the course area.

**On Moodle:**

Syllabus

 Course Schedule/Reading Schedule

 Additional Reading Resources

 Lecture Slides/Outlines

 Course Grades

**Course Evaluation/Assessment**

Students will be evaluated through assignments, quizzes, exams, and lab work.

**Assessments:**

Quizzes (2 @ 50 points each) = 100 pts

Midterm (1 @ 100 pts) = 100 pts

Labs (10 @ 15 points each) = 150 pts

Nutrient Budget Project = 100 pts

Final Comprehensive exam = 100 pts

Total Points = **550 pts**

**Grading Scheme:**

90-100% A

 80-89.0% B

 70-79.9% C

 60-69.9% D

 59.9% and below F

***\*Note:* Missing more than two labs will result in 0 % in the lab portion of the grade.**

**General Policies**

**I. Attendance Policy:** Students are expected to attend all lectures. No grade will be assigned for attendance. If a situation arises that makes it necessary to miss class it is the student’s responsibility to obtain notes from a peer.

**No quizzes, lab work, or in-class assignments will be accepted for credit if you were not in attendance for the class when the work is due.** If you have an emergency and miss class, please let me know as soon as possible, **providing documentation** of your emergency, so that we can discuss turning in late work.

Due to the high need for this class for all majors level students, there is always a long waiting list for enrollment. **If an enrolled student misses both the first lecture and lab for which they are registered, they will be dropped from the course.**

**II. Make-Ups**

**Make up exams:** There will be no make-up exams unless I am informed **in writing** prior to the exam that you will need to miss, and only for documentable reasons. This does not include event tickets, vacations, or other non-university sanctioned events. You need to talk with me directly for approval to make up an exam. Exams may not be taken early. Approved late takes must be made up before the next lecture class.

On the exam day if a life situation comes up that makes it impossible to attend the exam, then you must call or text me and (leave a message on my voicemail [541-602-6670]) or send me an immediate email (see top of syllabus). Please collect documentation (e.g. doctor’s note, mechanic’s receipt, etc.) so that we can make the allowance for a make-up **before** the next class meeting. A student contacting the instructor two or more days after the test will be ineligible to take a late take test.

**III. Special Accommodations:** Students who need accommodations due to documented disabilities, have medical information which the instructor should know about, or who need special arrangements in an emergency should speak with the instructor during the first week of class. If you have not accessed services and think you may need them, please contact the [Center for Accessibility Resources](https://www.linnbenton.edu/current-students/student-support/center-for-accessibility-resources/), 917-4789 or visit RCH 105. If you have already documented your disability, remember that you must complete a [Request for Accommodations](https://www.linnbenton.edu/current-students/student-support/center-for-accessibility-resources/how-to-get-started/) form every term in order to receive accommodations. It is the student’s responsibility to make any needs known to me within the first week of the semester, *in writing*, so that I can give appropriate accommodation. This includes but is not limited to disabilities of visual, hearing, learning, dates needed for religious holidays, court dates etc.

**IVa. Academic Misconduct:** This includes any form of cheating and will not be tolerated. Students are encouraged to read the college catalog or Student Handbook for further details. If a student is found to have cheated on an exam, after due process the resulting grade will be a zero on the exam or quiz. All group work should still be written in the student’s own handwriting and verbage.

Repeat violations of this policy will be referred to the Dean of Science, Engineering and Math Division. Violations of academic honesty will be met with severe measures that may include failing the course or expulsion from the college.

**IVb. Plagiarism:**  Plagiarism is the taking of ideas that are not your own and attempting to submit them as your own this is also considered academic misconduct. Using someone else’s work as your own, including your classmates work, can lead to serious consequences. Plagiarism is subject to disciplinary action and when appropriate will affect your grade. If you use a published source to quote or even paraphrase a reference it is critical to cite your sources, when in doubt ask your instructor specifics about this policy – do not assume that “not knowing” will excuse you from this college-wide policy.

**IVc. Professionalism:** All students in this class will treat each other and faculty with professionalism. Distracting and disrespectful behavior will not be tolerated. If a student is asked to leave the classroom for rude or distracting behavior, they will not be permitted to return to class until there has been a discussion with the student, faculty, and dean (or assistant dean) present.

**V. Cell Phones**: As a courtesy to fellow students and instructor, please turn off all cell phone notification sounds and pagers during the instructional period. Cell phones are not to be used in class unless for class material - e.g. searching for definitions or extended topic material. Otherwise, please keep these devices put away while class is in session. If a student’s cell phone use becomes a distraction to classmates or the instructor, they will be asked to turn the device off and put it away.

***If you leave class to answer/place a call/text message, you will be expected to leave for the rest of the day. Break times are the only exception.***

Anyone who needs to have a phone connected (e.g., spouse close to labor, a child sick at home) must inform the instructor at the beginning of the class period. Cell phones may not be used for calculators exams - you must use the calculators provided or bring your own – no exceptions.

**VI. Personal Computers (Notebook/Laptop/PDA):** Tablet, Laptop or PDA for class notes and in labs may be used for class or lab activities. Distracting use (games, social media, messaging, etc.) that draws the attention of classmates and/or the instructor will elicit a request to remove yourself from the classroom for the period, and the student will not be permitted to return without first meeting with the Dean.

**VII.** **Withdrawing from Classes (Dropping a Class After the Refund Deadline)**

To drop a class or withdraw from school, you must turn in a Schedule Change form at the Registration Counter or at a community center or use the SIS system. If you withdraw from a course after the refund deadline, you will receive a "W" grade in the class, and you will forfeit all claims to refunds, and be financially responsible for any tuition and fees. Failure to drop a class may impact your grade point average and financial aid eligibility. Note: For classes meeting eight or more weeks, the deadline to withdraw from the class is 5 p.m. on Friday of the seventh week of the term.

**VII. Incomplete Policy:** An incomplete (IN) will only be issued when a student is unable to complete the last exam by the end of the term due to extenuating circumstances. Each incomplete grade will be accompanied by a signed contract specifying the conditions necessary to complete the course. A minimum of 70% of the course work must be accomplished (excluding the final exam) before consideration of an incomplete is granted.

**Failure from lack of attendance or missing numerous labs is not grounds for an incomplete**.

The “Incomplete” contract will be signed by the student and the instructor and placed on file in the Division office.

**IX. Assessments:**

**Exams:** Are designed to monitor your mastery of the material that you have learned. There will be two midterms in this course, each covering roughly one half of the course material. The exam format will be multiple choice, short essay, diagramming, analyzing information, and matching. It may take up to one week to grade an exam. All students will receive their test back on the same day. I do not turn back exams early during office hours to individuals.

**Early Take Exams:** Under no circumstances are midterm or final exams administered early, please plan accordingly.

**Labs:** Labs are a very important format of learning and “training”. Students should plan for being in the lab for the duration of the lab period. Read your assigned material that corresponds to lab BEFORE you arrive.Ask questions during lab sessions if lab activities are not clear.

It is important to bring your lab manual to **every** lab session.

**Make-up Labs:** Due to limited space availability, we ***do not have*** make up lab times outside of the regular lab session. If you know in advance that you must miss a lab e.g. due to a pre-scheduled Dr.’s appointment, speak to the instructor.

**Late Work:** Will NOT be accepted without supporting documentation to show your inability to meet deadlines e.g. a doctor’s note or hospital admission form.

**X. College Wide Policies**

**Comprehensive nondiscrimination policy:** LBCC prohibits unlawful discrimination based on race, color, religion, ethnicity, use of native language, national origin, sex, sexual orientation, marital status, disability, veteran status, age, or any other status protected under applicable federal, state, or local laws (for further information<http://po.linnbenton.edu/BPsandARs/> ). Policy 1015.

**Inclement Weather Policy:** If campus is open class will be given (including lab days) and scheduled exams/quizzes will be administered. Please listen to local media coverage for notice of closures such as T.V., radio stations, & the [LBCC website](https://linnbenton.regroup.com/signup).

**Basic Needs Policy**

Any student who has difficulty affording groceries or accessing sufficient food to eat every day, or who lacks a safe and stable place to live, and believes this may affect their performance in the course, is urged to contact the Roadrunner Resource Center for support (resources@linnbenton.edu , or visit us on the web [www.linnbenton.edu/RRC](http://www.linnbenton.edu/RRC) under Student Support for Current Students). Our office can help students get connected to resources to help. Furthermore, please notify the professor if you are comfortable in doing so. This will enable them to provide any resources that they may possess.

**CRISIS?** Don’t hesitate to reach out to me. For anything. Anytime.