**AG 8.130 - PESTICIDE SAFETY Winter 2020**

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

Office: WOH 210 CRN: 30533

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**Office hours: MW 10-11am**

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

***Welcome***

**Course Description.**

This course covers background information on the use of herbicides, insecticides, fungicides and other pesticides. Types of  materials, safety in handling, storage and method of application are emphasized. Students develop ability to interpret and explain the directions and precautions to be observed with the use of agricultural chemicals.

**Course Learning Outcomes**

* Demonstrate knowledge of the safe and appropriate use of agricultural chemicals.
* Explain the laws and regulations governing pesticide applications and record keeping.
* Perform calculations necessary to apply pesticides using a variety of application technologies.
* Discuss toxicology and environmental concerns regarding the application of pesticides in agricultural and natural ecosystems.
* Demonstrate readiness to pass the ODA Private Pesticide Applicator licenses exams.

**Prerequisites.**

None.

**Course Materials.**

1. National Pesticide Applicator Certification Core Manual, 2nd Edition, 2014 - <http://www.oregon.gov/ODA/shared/Documents/Publications/PesticidesPARC/PesticideApplicatorCoreManual.pdf>
2. [Oregon Core Manual Addendum http://www.oregon.gov/ODA/shared/Documents/Publications/PesticidesPARC/PesticideAddendum.pdf](http://www.oregon.gov/ODA/shared/Documents/Publications/PesticidesPARC/PesticideAddendum.pdf)

\*\*Additional readings and resources will be provided in Moodle.

Students are required to be enrolled in Moodle (http://elearning.linnbenton.edu) with an up-to-date personal profile. Messages from the instructor to the students will be sent via Moodle, which uses the LBCC Roadrunner student email address assigned to each student. **Students who fail to respond to an email by the instructor because they did not update or forward their email address by the end of week 1 will be dropped from the course.**

**Course Format**

Online - this class will not meet regularly in person. Instead, you will be following the materials weekly as presented on Moodle.

*Required Face-to- Face Meetings*

* Midterm Exam: **Wednesday, February 5,** 3:00-4:00, Room TBA (or at remote location with high speed online access and approved exam proctor - please make sure to schedule this in advance with proctor and submit the PROCTOR VERIFICATION FORM).
* Final Exam: **Friday,  March, 13**, 3:00-4:00, Room TBA (or at remote location with high speed online access and approved exam proctor).

**Technology Course Requirements**

To complete this course you need:

1) Free and frequent access to a computer without any technical problems.

2) Broadband internet connection

3) Updated Internet Browser or Chrome with Java enabled

4) Updated Acroboat pdf reader and Java Software (find software at <http://get.adobe.com/reader/> and   <http://www.java.com/en/download/index.jsp> )

5) Frequent access to the LBCC Roadrunner email account or Roadrunner email linked to another easily accessible email account.

**You are fully responsible for having a functioning computer systems** including broadband internet and the software described above). **Students' technical problems with the computer or their internet connection are not acceptable excuses for late assignment or missed quizzes/exams.** (Verified technical issues that originate from the LBCC computer server or Moodle course management system are acceptable excuses).

**Weekly assignments**

1) Check the syllabus for topics and designated chapters in the National Pesticide Applicator Certification Core Manual and the Oregon Addendum to this Manual. Read the chapters in the Manual and test your  knowledge by working through the study questions.

2) In Moodle go to the weekly “Slides" and review the Presentations for the designated chapters.

3) *Optional*:  Review "Weekly Resources" including tutorials. publications, slide sets or videos.

4) Complete the weekly “Review Questions" **between Sunday and Thursday** of each week (open from Sunday 6:00 AM to Thursday 23:00 PM). Usually there are two set of questions - some questions may refer to selected "Resources". Note that the review questions are often in Moodle quiz format.

5) Complete the weekly “Quiz” **on Friday** of each week (i.e. the quiz is only open on Friday from 05:00 (5am PDT) to 23:00 (11pm PDT). Exception there will not be a quiz in week 5 and week 10 because of the Midterm or Final exam.

*Notes***:**

* I strongly recommend that you are **not doing the assignments and the quiz late on the day when they are due**. Technical problems can and will occur. Late assignment or quizzes are not accepted. Give yourself more than a single chance and remember that you are fully responsible for having a functioning computer systems including broadband internet and the software. Your technical problems with the computer or your internet connection are not acceptable excuses for late assignment or missed quizzes/exams.

**Student Integrity:**

All students are expected to complete the assignments, quizzes, and exams on their own and with integrity, not jeopardizing their own honesty nor that of other students.

**Waitlist Policy**

If the class is full, registered students not participating in the first week activities without advance notice to the instructor will be dropped from the class and students from the waitlist will take their spots. Waitlisted students must meet with the instructor for approval to become registered students.

**Course Evaluation**

You will be evaluated through weekly quizzes, a final exam, lab and lecture reports. You have to let the instructor know ahead of time (in person, via  phone or email) if you are unable to meet due dates of assignments or if you are unable to take exams or quizzes on the designated dates and times. This policy applies also for technical difficulties with email or internet access. Only students following this procedure will receive make-up quizzes or a chance to submit lab and lecture reports at a later time. You can keep track of the assigned grades on Moodle.

**Grades:** The grading system for the course is “A-F”. Final grades will be based on the percentage of total points earned.

A = 90% and above; B = 80 to 89%; C = 70 to 79%; D = 60 to 69%; F = 59% and below

**Grading detail:**

Regarding **review question** grading:

* There is no time limit and you may attempt the assignment up to three times.
* Late submissions will not be accepted (for reduced credit)
* The instructor manually reviews all answers, even those that are automatically graded. That means you don’t need to worry about spelling or how you express things in your own words.

Regarding **weekly quiz** grading:

* Weekly quizzes are graded like regular exams based on the correctness of answers.
* There is a time limit and you are completing the exam with the clock ticking. Once you start you can not close the quiz - you have to finish within the time limit and with a locked pop-up screen (i.e. you can’t open files or browse the internet).
* You only have one attempt to complete the quiz.
* Quizzes are cumulative. The week 2 quiz will include materials from week 1 and 2; the week 3 quiz will include materials from weeks 1, 2 and 3; etc.
* The instructor reviews all answers, even those that are automatically graded. That means you do not need to worry about spelling or how you express things in your own words.

Regarding **midterm and final exam** grading:

* All points mentioned in weekly quiz grading apply also to midterm and final exams.
* Midterm and final exam are taken with supervision during the required face-to-face meetings (see page 1 of the syllabus).

**Disabilities Services:**

You should meet with your instructor during the first week of class

* if you have a documented disability and need accommodations,
* your instructor needs to know medical information about you, or
* you need special arrangements in the event of an emergency.

If you believe you may need accommodation services please contact Center for Accessibility Resources, 541-917-4789. If you have documented your disability, remember that you must make your request for accommodations through the Center for Accessibility Resources Online Services web page every term in order to receive accommodations.

**Tentative Course Schedule**

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| --- | --- | --- | --- | --- | --- |
| **Week** | **Topic 1** | **Topic 2** | **Topic 3** | **Readings/Activities** | **Assignments/ Exams** |
| **1** | Pests: Diseases, Insects and Weeds | Types of Pesticides | Pest Management - IPM | Ch.1 NPACCM  Ch. 5 OR Addendum  Moodle Resources | Review Questions   Practice Quiz |
| **2** | Federal Pesticide Laws & Regulations | Oregon Laws & Regulations | Residue and Tolerance | Ch.2 NPACCM  Ch. 1 OR Addendum  Moodle Resources | Review Questions  Practice Quiz |
| **3** | Pesticide Label | Formulations |  | Ch.3 & 4 NPACCM  Moodle Resources | Review Questions  Practice Quiz |
| **4** | Toxicity | Pesticide Poisoning | First Aid | Ch.5 NPACCM  Moodle Resources | Review Questions  Practice Quiz |
| **5** | Personal Protective Equipment |  |  | Ch.6 NPACCM  Moodle Resources | Review Questions  **Midterm on Wednesday** |
| **6** | Pesticides in the Environment |  |  | Ch.7 NPACCM  Moodle Resources | Review Questions |
| **7** | Transportation, Storage, and Disposal | Spill Management |  | Ch.8 & 9 NPACCM  Moodle Resources | Review Questions  Practice Quiz |
| **8** | Mixing, Loading, Cleaning | Application  Equipment |  | Ch.10 NPACCM  Moodle Resources | Review Questions  Practice Quiz |
| **9** | Equipment Calibrations | Application Calculations | Weather-wise Application | Ch.11 NPACCM  Moodle Resources | Review Questions  Practice Quiz |
| **10** | Oregon Pesticide Certification, Recertification and Licensing | Oregon Compliance and Enforcement | Oregon Special Regulations | Ch. 2, 3 & 4 OR Addendum  Moodle Resources | Review Questions  **Final Exam on Friday** |

***ODA STATE PESTICIDE EXAMS:*** LBCC is an official site for the Oregon Department of Agriculture state pesticide exams. Computer -based exams are given once a month.  Space is limited. To register call the Metro Institute:  1-877-533-2900. [http://www.metroinstitute.com](http://www.metroinstitute.com/) Testing is offered once a month. Cost $58.

Study Material for the exam: (check under “Private”)

<http://www.oregon.gov/ODA/programs/Pesticides/Licensing/Pages/ExamsStudyMaterials.aspx>