I. Catalog Description and Credit Hours of Course:

The study of the chemical and physical properties, usage, legal attributes, and health risks of agricultural chemicals. Two lectures. (2).

II. Prerequisites: AO 290, CH 234

III. Purposes or Objectives of the Course:

A. To become familiar with the basic chemistry of agricultural chemicals.
B. To gain a knowledge of the environmental impacts of agricultural chemicals.
C. To gain an understanding of application technologies.
D. To become familiar with the classification of plant protection chemicals.
E. To become familiar with an integrated approach to using agricultural chemicals.

IV. Expectations of Students:

A. Evidence of study outside of lectures as revealed by examinations.
B. Active classroom participation.
C. Completion of all written assignments.
D. All writing assignments will conform to the style guide of the American Society of Agronomy.
E. Study groups will maintain throughout the semester an agricultural chemical portfolio detailing the chemical usage and effectiveness, storage conditions, environmental constraints, legal requirements, and safety.
F. Students will be expected to prepare organized and technically correct professional presentations using available multimedia techniques.

V. Course Content:

<table>
<thead>
<tr>
<th>Hours</th>
<th>Course Content</th>
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<tbody>
<tr>
<td>2</td>
<td>Pesticide laws, liability, and record keeping</td>
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<td>1</td>
<td>Plant disease agents.</td>
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<td>2</td>
<td>Weed science review.</td>
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<td>1</td>
<td>Vertebrate pests.</td>
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<td>1</td>
<td>Entomology review.</td>
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<td>1</td>
<td>The pesticide label</td>
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<td>1</td>
<td>Examination #1</td>
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<tr>
<td>4</td>
<td>Pesticide safety.</td>
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<tr>
<td>3</td>
<td>Pesticide and environmental considerations.*</td>
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<tr>
<td>3</td>
<td>Pesticide formulations and adjuvants*</td>
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</tbody>
</table>
11. Examination #2 1
12. Pesticide application equipment* 3
13. Pesticide equipment calibration* 3
14. Pesticide calculations* 1
15. Pesticide transportation, storage, disposal, and decontamination* 4
16. Examination #3 1
*Student presentations

VI. Textbook


VII. Student Evaluation:

A. Hour Exams (3) 300 points
B. Final Examination 100 points
C. Portfolio 50 points
D. Presentations

Grading scale: 91<A<100; 81<B<90; 71<C<80; 61<D<70;

F< 61