Course: YDAE 318  
Coordination of Supervised Agricultural Experience Programs

Credits: 2 (graded)

Time and Location: Fall Semester 2006  
TTh 1:30 – 2:45 p.m.  
PFEN 103  
SC 246 (October 3, 5 & 12 only)

Professor: Mark A. Balschweid, Associate Professor  
615 State Street  
Agricultural Administration Building Room 224  
Purdue University  
West Lafayette, IN 47907-2053  
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Secretary (Mona Jackson): 765-494-8423  
Fax: 765-496-1622  
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COURSE DESCRIPTION

The course is designed to help prospective Agricultural Science and Business teachers master the competencies needed to advise and coordinate the Supervised Agricultural Experience Programs of secondary agricultural education students.

COURSE OBJECTIVES

At the completion of this course, students will be able to:

1. Develop a philosophy/rationale for SAE programs.
2. Advise students in planning an SAE program.
3. Identify, evaluate, and place students in SAE programs.
4. Explain the role of SAE to enhance student learning in the study of agriculture.
5. Identify community resources to establish and implement SAE programs for students.
6. Explain the relationship of SAEs to the FFA award system.
7. Conduct on-site visitation of students’ SAE programs.
8. Explain methods of integrating the SAE experience in the formal classroom system.
9. Establish a grading system for SAE programs.
10. Demonstrate the use of a record keeping system for recording essential information related to Supervised Agricultural Experiences including contracts, budgets, profit/loss statements, wage and labor, etc.

TEXT

Indiana Computerized Record Book. Available upon request from Purdue University Agricultural Education Faculty. [http://www.ydae.purdue.edu/Record_Book/](http://www.ydae.purdue.edu/Record_Book/)

Additional electronic record book copies, Catalog # 10-8172-D, may be ordered from:
Instructional Materials Laboratory
University of Missouri-Columbia
2316 Industrial Drive
Columbia, Missouri 65202
1-800-669-2465
FAX 314/882-1993

Cost: Master Copy $128.75; Student Diskette $6.45 per copy
EDCI 318 Course Packet. Available only from the Purdue Agricultural Education World Wide Web Home Page at http://www.ydae.purdue.edu/undergrad/aged/agpackets.html#


**BIBLIOGRAPHY**

Agricultural Education Magazine (many issues). Professional Journal of Agricultural Education.


Phipps, Lloyd J. & Osborne, E. (1989). Handbook on Agricultural Education in Public Schools. Interstate Publishers: Danville, IL. This is a reference that I will use. You are not required to purchase this textbook.

The Purdue Electronic Portfolio (PEP) Artifact(s) from this course is the SAE Case Study. College of Education Themes and INTASC (Interstate New Teacher Assessment and Support Consortium) Principles addressed by this artifact is:

SOE Theme #1: Attention to Learners.

INTASC Principle #1: The teacher understands the central concepts, tools of inquiry, and structures of the discipline(s) he or she teaches and can create learning experiences that make these aspects of subject matter meaningful for students.

INTASC Principle # 7: The teacher plans instruction based upon knowledge of subject matter, students, the community, and curriculum goals.

INTASC Principle #8: The teacher understands and uses formal and informal assessment strategies to evaluate and ensure the continuous intellectual, social, and physical development of the learner.

INTASC Principle #10: The teacher fosters relationships with school colleagues, parents, and agencies in the larger community to support students’ learning and well-being.
CLASS EVALUATION

Individual assignments will be scored individually and team assignments as a team with some modification of team reports for effort and degree of participation.

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Points</th>
<th>Due Date by</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Report on SAE Case Study</td>
<td>100</td>
<td>9/12</td>
</tr>
<tr>
<td>2. Proposed AgriScience SAE</td>
<td>50</td>
<td>11/02</td>
</tr>
<tr>
<td>3. Computerized Record Book Entries</td>
<td>100</td>
<td>10/19</td>
</tr>
<tr>
<td>4. Visitation Reports to local Agribusiness</td>
<td>100</td>
<td>11/02</td>
</tr>
<tr>
<td>5. Completion of a Proficiency Award Application</td>
<td>50</td>
<td>11/16</td>
</tr>
<tr>
<td>6. Completion of an FFA Degree Application</td>
<td>50</td>
<td>11/16</td>
</tr>
<tr>
<td>7. Developing a Record Book Score Sheet</td>
<td>50</td>
<td>11/28</td>
</tr>
<tr>
<td>8. Class attendance and participation</td>
<td>125</td>
<td></td>
</tr>
<tr>
<td>9. Tests (2)</td>
<td>200</td>
<td>10/17, 11/09</td>
</tr>
<tr>
<td>10. Final Exam</td>
<td>100</td>
<td>TBA (Cumulative)</td>
</tr>
<tr>
<td>11. Attend/participate in two IAAE-Purdue activities each worth 25 points apiece. Turn in an activity report form for each activity. (Chicken BBQ is a required activity for this section)</td>
<td>50</td>
<td>TBA</td>
</tr>
</tbody>
</table>

GRADING BASIS AND PROCEDURE

Students will be evaluated on an individualized basis. A mastery learning approach will be used on the Proficiency and Hoosier Applications, and the Record Book Scoresheet. Each assignment will be collected, evaluated, and returned to the student. Assignments may be corrected and returned to the instructor until acceptable mastery is accomplished. Late papers accrue a penalty of one letter grade. Papers must be resubmitted within one week of date of return.

A = 90+% of points assigned
B = 80-89% of points assigned
C = 70-79% of points assigned
69% or less points assigned represents unacceptable performance in the course.

If you have a disability that requires special considerations, please make an appointment with me to discuss your needs as soon as possible.
Office Hours: See instructor or call for an appointment time.
## COURSE SCHEDULE

<table>
<thead>
<tr>
<th>SESSION</th>
<th>TOPIC</th>
</tr>
</thead>
</table>
| 08/22   | Course objectives and expectations  
The history and philosophy of SAE programs in agricultural science and business programs |
| 08/24   | History and Philosophy of SAE’s (cont.)  
The purpose/rationale for supervised agricultural experience programs and the teacher's responsibilities in organizing |
| 08/29   | Observing SAE in the Agricultural Science and Business Program: Field Trip to McCutcheon High School - **Sarah McGhee**, Agricultural Science and Business Teacher, McCutcheon High School; smcghee@tsc.k12.in.us, 765-474-1488 ext. 4056 |
| 08/31   | The purpose/rationale for supervised agricultural experience programs and the teacher's responsibilities in organizing |
| 09/05   | The Teacher's Role in SAE |
| 09/07   | Relationship of SAE and FFA  
**Utilizing an Appropriate SAE Record Book System** |
| 09/12   | Requirements of productive SAEs and Opening Record Books |
| 09/14   | Opening the Record Book, Developing a Business Plan (Budgets) for SAEs – |
| 09/19   | Keeping records for the agricultural business and placement program: Conducting an Inventory, Calculating depreciation, Recording income and expenses – |
| 09/21   | SAE’s in the Agricultural Science and Business program – **Guest Speaker: Jeff Bernaix**, Agricultural Science and Business Instructor, Eastbrook High School; jbernaix@eastbrook.k12.in.us 765-664-1214 ext. 170 |
| 09/26   | Recording FFA activities and completing Net Worth, Profit and Loss Statements, and other summary forms; Closing the Record Book; |
| 09/28   | Early Field Experience Site Selection |
| 10/03   | Follow-up for Early Field Experience Site Selection  
Using the Electronic Record Book in ASB programs-**PUCC LAB, SC 246** |
| 10/05   | Using the Electronic Record Book in ASB programs-**PUCC LAB, SC 246** |
| 10/10   | OCTOBER BREAK |
Utilizing an SAE Record Book to Document Proficiency

10/12  Using the Electronic Record Book in ASB programs-**PUCC LAB, SC 246**
      Turn in Selections for Early Field Experiences

10/17  Test #1 (Material covering August 22 – September 26)

10/19  Completing FFA proficiency award applications:
      Using SAE record books for local, state, and national award
documentation

10/24  Completing FFA Proficiency & Degree applications – **Group Work Time**

10/26  National FFA Convention: Indianapolis, Indiana – No Class

      **Planning an SAE Program**

10/31  Debrief National FFA Convention and Using SAE for Student Motivation

11/02  Developing a record book grading system

11/07  Completing the American FFA Degree and Proficiency Award
      Applications: A National Perspective – **Guest Speaker: Mr. Larry
      Gossen**, LPS Specialists, Central Region, National FFA Organization;
      lgossen@ffa.org 317-802-4352

11/09  Test #2 (Material since Test #1)

      **Conducting an SAE Visitation Program**

11/14  Agricultural Education Recruitment Day – All expected to attend
      afternoon session

11/16  Completing FFA Proficiency Award and Hoosier Degree Applications: A
      State Perspective - **Guest Speaker: Travis Scherer;** Agricultural
      Science and Business teacher Tri-County High School;
      scherert@trico.k12.in.us 219-279-2105

11/21  Planning summer programs to emphasize SAE
      National FFA Resources Mini - Presentation

11/23  **THANKSGIVING HOLIDAY**

      **Legal Requirements of an SAE Program**

11/28  National FFA Resources Mini - Presentation

11/30  Conducting On-site visitations
      National FFA Resources Mini - Presentation

12/05  Developing a Year-Round SAE Supervision Plan
Final Exam Schedule Available 9/16/06 at http://www.purdue.edu/Purdue/course_info/
COURSE ACTIVITIES

1. **Readings** - Students will be expected to read given assignments from the text and to read assigned professional literature. The reading assignments will be evaluated by written and/or oral examinations.

2. **Record Book Entries** - Each student will be expected to keep a record book of sample entries to increase their proficiency in agricultural record book keeping.

3. **Competency Assessment Assignments** - The student will be instructed to conduct various activities that facilitate the mastery of SAE Coordination proficiencies.

4. **Exams and Tests** - Exams and tests will be administered to determine mastery of the information.

Purdue University Policy for the Posting and Dissemination of Graded Student Work

It is the policy of Purdue University to comply with the requirements of the Federal “Family Educational Rights and Privacy Act of 1974” (as Amended), concerning the disclosure of student records. A complete description of this University policy regarding student rights and institutional responsibilities can be found in Executive Memorandum No. B-44 that is in the process of being revised to incorporate the amendments to FERPA.

According to University policy, grades are considered a part of a student's educational record and will not be released or posted in any personally identifiable form. Graded student tests or papers shall not be placed in halls or anywhere other individuals have access to them. Results of student work shall not be posted in any form that permits one student to identify another student’s results. Acceptable alternatives for posting and dissemination of graded student work include:

1. Posting of grades by using the last 6 digits of a student’s Identification/Social Security number.

2. Posting of grades by using a system of random numbers or letters or other symbols, not personally identifiable, known only by the teacher and the individual student.

3. The return of graded papers by course instructors directly to individual students.

4. The mailing of grades and/or student work in self-addressed, stamped envelopes.

5. The dissemination of graded student work by course instructors at a specified time and place.

The Dean of Students Office recommends that graded student work that is not picked up by a student at the end of the semester should be kept for 30 days into the next semester (excluding summer session).

**The policy for handing back graded work to students for EDCI 318 will be to directly return the work to the student either in class or at a designated time such as office hours.**
SAE PLACEMENT CASE STUDY

BACKGROUND

Phil Jones is a beginning agricultural science student at Hoosier Central High School, he lives in a small rural town of 700 population. He delivers a daily newspaper published in a nearby community of 15,000 only ten miles away. The community is very rural and in his county there are 120,000 corn acres; 60,000 soybeans acres with the remainder in the balance of other crops. Phil is involved in football and intends to wrestle during second semester, his parents do not have access to a farm, neither do any of his relatives. As his Agricultural Science and Business Instructor you feel Phil should have an SAE program, however since he is only 15 years of age, he is unable to take a position at the local fertilizer plant. From your past experience, local farmers are unwilling to employ young people without a farm background, and Phil just doesn't want a job sweeping floors or doing what no-one else cares to do. He is very intelligent and one of the top three students in his class, he attended Greenhand camp in the summer and really enjoyed the leadership contests placing first in public speaking. You feel he has some real potential, but needs an SAE program. All his other class members have one and Phil is rather down on himself because of his inability to get an SAE as readily as the other students. He legally cannot drive and is limited by where he can go, and most certainly does not want to give up his athletic endeavors just to have an SAE, what should you do to help Phil?

QUESTIONS TO CONSIDER:

1. Should you assist Phil in obtaining an SAE program? Why?
2. What type of placement programs do you feel would be a fit for Phil?
3. What should be taken into consideration in Phil's placement agreement?
4. What community resources would you tap to assist Phil?
5. Since Phil cannot drive, what type of arrangement could be made to overcome this obstacle?
6. What other considerations should you make?
7. Should you develop a training plan, why or why not?

Resources: Indiana Computerized Record Book [http://www.ydae.purdue.edu/Record_Book/](http://www.ydae.purdue.edu/Record_Book/)

Your report should include a narrative that answers the seven questions above. At a minimum, include 1) a completed placement agreement (including who, what, where, why, and when that should be included in any agreement), and 2) a list of potential competencies for the SAE you would advise Phil to pursue.

This assignment is due on:
SAE Case Study Artifact Rubric

The Purdue Electronic Portfolio (PEP) Artifact(s) from this course is the SAE Case Study. School of Education Themes and INTASC (Interstate New Teacher Assessment and Support Consortium) Principles addressed by this artifact is:

SOE Theme #1: Attention to Learners.

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INTASC Principle #8: The teacher understands and uses formal and informal assessment strategies to evaluate and ensure the continuous intellectual, social, and physical development of the learner.

INTASC Principle #10: The teacher fosters relationships with school colleagues, parents, and agencies in the larger community to support students’ learning and well-being.

This assignment is designed to help you develop your own philosophy for assisting students with the development of a Supervised Agricultural Experience program. Your approach should address major components of an effective SAE program and communicate your approach to the student. This assignment will be evaluated as follows:

<table>
<thead>
<tr>
<th>Area of Interest</th>
<th>Point Value</th>
<th>Points Assigned</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Should you assist Phil in obtaining an SAE program? Why?</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>2. What type of placement programs do you feel would be a fit for Phil?</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>3. What should be taken into consideration in Phil's placement agreement?</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>4. What community resources would you tap to assist Phil?</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>5. Since Phil cannot drive, what type of arrangement could be made to overcome this obstacle?</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>6. What other considerations should you make?</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>7. Should you develop a training plan, why or why not?</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>8. Placement Agreement</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>9. Potential Competencies</td>
<td>10</td>
<td></td>
</tr>
</tbody>
</table>

Point Total 100
Iris O’Reily Dunno - Information for Proficiency and FFA Degree Application

I. Dunno, as her friends call her, is the daughter of Hugh and Barbara Dunno. She was born on January 19, 1989. Her Dad is a local radio talk show host and her Mom does TV interviews for a living. Her personal information is:

SSN: 000-00-0000
1313 Mockingbird Lane
Uppa Creek, IN 90210
(317) 555-0011

Uppa Creek FFA Chapter, Chapter # IN 555
Uppa Creek Junior-Senior High School
123 Swallow Circle
Uppa Creek, IN 90210-0123
(317) 555-4357 or 555-HELP
Chapter Advisor is Ima Hoosier

Iris began her FFA membership in her Freshman year in high school. She is a Senior this year and will graduate in June, 2005. She took “Fundamentals” in the 9th grade, “Animal Science” in the 10th, “Hort Science” in the 11th, and is enrolled in “Landscape Management” this year. She has been an FFA member for all four years. Iris has applied to Purdue University in Agricultural Education and plans to minor in Agricultural Communications. Iris makes all A’s and B’s in school and has a 3.40 GPA overall.

Because of her parents’ occupations Iris has had an interest in communications from an early age. When Ms. Hoosier talked about SAEs in the Fundamentals class, Iris knew that she wanted to do hers in agricultural communications. In the fall semester of that year, each time school was out but her parents were working, Iris went to work with one of them as an exploratory SAE. In the spring, she wanted to get experience with print media and photography so she observed the local newspaper operation and eventually started doing a bi-weekly guest column on various agricultural issues and topics. That summer Iris worked as a paid news assistant (aka Gopher) at the local TV station. She liked TV but realized quickly that she wasn’t interested in it as a career.

During her sophomore year, her newspaper column became a weekly feature for which she was paid. Her sophomore summer the newspaper hired her at 20 hours per week.

For her junior year, Iris continued the newspaper column and continued to work at the newspaper office for 10 hours per week. After each FFA contest and event, she taped interviews with FFA members for playback on her Dad’s radio station. Although these were community service spots for the station and therefore not paid work, Iris counted them as valuable experiences in helping her learn about radio and whether she should consider it as a career.

This year, Iris is continuing what she did during her junior year, but now as Chapter FFA Reporter she is also responsible for all news releases to all media. She also started a monthly newsletter in September on “Horticulture and Landscaping in Uppa Creek” with 50 subscribers at $1.00 per issue.
SAE Placement Information:

September 1, 2003 to December 31, 2003 spent 40 unpaid hours total shadowing Mom and Dad at their places of work.

January 1, 2004 to May 31, 2004 spent 50 unpaid hours observing and shadowing at Uppa Creek Gazette.

February 1, 2004 to August 31, 2004 spent 10 unpaid hours per week researching and writing bi-weekly guest column.

June 1, 2004 to August 31, 2004 worked 20 hours per week at minimum wage (assume current minimum wage rate). Social Security was taken out at 7.75%, federal taxes at 10% and Indiana State and County taxes at 3.25%.

September 1, 2004 to December 31, 2004 paid $50 per week for feature article. Same deduction rates were used. Iris averaged 10 hours per week researching and writing the articles.

June 1, 2005 to August 31, 2005 paid minimum wage to work at newspaper office. Same deduction rates. Duties included typing, general editing, photography, layout, basically everything but sales and advertisement. Worked 20 hours per week.

September 1, 2005 to December 31, 2005 continued work at the newspaper office for 10 hours per week during the school year and 20 hours per week during the summer. Iris received a $.50 per hour raise starting September 1, 2004.

September 1, 2005 to December 31, 2005 averaged 2 unpaid hours per week taping and editing interviews.

September 1, 2005 to December 31, 2005 spent 5 hours per week working on monthly newsletter. Each newsletter was $.35 in expenses and sold for $1.00 per issue to 50 subscribers. She wrote the newsletter on her family’s home computer, printed it out on the inkjet printer and copied at the local Kinko’s.

Iris has participated in the following school, FFA, and community activities:

'03, '04, '05, '06 Member local Church Youth Group
’03, ‘04 4-H member and local officer
‘03 - '05 Chapter Fall Frolic Planning Committee
‘03 -‘04 Star Greenhand Award
’04 - ‘06 FFA Fruit Sales
’03 - '04 Participated in Greenhand Knowledge Contest on Local, District, & State levels
‘03 - '04, '04 - ‘05 Participated on Livestock Judging Team on Local, District, & State levels
’03 - '04 Food for America program, local
‘03 Chapter Christmas Food Drive Committee - Chose design for decorations
‘03 Received Greenhand - October 10, 2000
‘04 Received Chapter FFA - October 9, 2001
‘04, ‘05 FFA National Convention
‘03 Greenhand Camp, State activity
’04 - ‘05 FFA State Convention
‘04 Chapter FFA Banquet Entertainment - Set-up entertainment and equipment
‘03 - ‘04 Member, School Basketball team
‘05 FFA State Courtesy Corps
‘03 - ‘04 Chapter Historian
‘05 - ‘06 Chapter Reporter
‘03 - ‘04 member, SAE Committee
‘04 -‘05 chair, Publicity Committee
‘05 - ‘06 member, Publicity Committee
‘05 - ‘06 member, Uppa Creek Jr. Sr. H.S. Communicators of Tomorrow
‘04 - ‘06 member, Uppa Creek Area Media Association

Iris has the following financial information:

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash</td>
<td>September 1, 2003 - $100.00, December 31, 2005 - $1,000</td>
</tr>
<tr>
<td>Pentax 35mm camera</td>
<td>Purchased new May 1, 2004- $350</td>
</tr>
<tr>
<td>Camera lenses (3)</td>
<td>Purchased new May 1, 2004 - $150</td>
</tr>
<tr>
<td>Camera bag &amp; misc. equipment</td>
<td>Purchased new May 1, 2004 - $35</td>
</tr>
<tr>
<td>Film (inventory)</td>
<td>September 1, 2001 - 0 rolls, December 31, 2005 - 12 rolls, $60</td>
</tr>
<tr>
<td>400 MHz Computer</td>
<td>Purchased new April 1, 2005 - $1,800. Iris owns 50% and uses it 100% of the time for her SAE work.</td>
</tr>
<tr>
<td>HP Inkjet printer</td>
<td>Purchased new April 1, 2005 - $350. Iris owns 50% and uses it 100% of the time for her SAE work.</td>
</tr>
<tr>
<td>Paper, toner, etc.</td>
<td>September 1, 2004 - none, December 31, 2005 - $100</td>
</tr>
<tr>
<td>Liabilities</td>
<td>None</td>
</tr>
<tr>
<td>Jewelry</td>
<td>September 1, 2003 - $150, December 31, 2005 - $500</td>
</tr>
<tr>
<td>Stereo and TV</td>
<td>September 1, 2003 - none, December 31, 2005 - $400</td>
</tr>
<tr>
<td>U.S. Savings Bond</td>
<td>December 25, 2005 - gift from Grandparents - $500 face value</td>
</tr>
</tbody>
</table>
PROPOSED AGRISCIENCE SAE

Situation: Designing Supervised Agricultural Experiences for students who do not have an agricultural background can be a challenge. Assume you are the Agricultural Science and Business Instructor for an Indiana High School. Also, assume that you teach Advanced Life Science: Animals, Advanced Life Science: Plants and Soil, and Advanced Life Science: Foods in your program. As a result of this, many students are becoming interested in the part that science plays in agriculture. Many of the students in this suburban high school have no background in production agriculture, and many don’t have a desire to get a job working on a farm.

Assignment: Your job as an Agricultural Science and Business Instructor is to develop the interests of students and turn that into Supervised Agricultural Experiences that can help them apply classroom knowledge and skills toward an independent project of their choice. You are asked to identify one such AgriScience SAE project (that could fit into a variety of your classes) and develop a write-up on how a student could utilize this as their SAE. Following are some items you may want to consider:

1. Give a brief description of the project.
2. Who are “outside” resource personnel that the student could utilize? (i.e. Science teacher, SCS personnel, local greenhouse manager, etc.)
3. What scientific principles are being explored in this project?
4. What application to agriculture could be made with this project?
5. What materials, facilities, and/or special requirements are needed for a student to be successful with this project? (i.e. Thermometers, plant material, potting soil, beakers, etc.)
6. What special records, journals, and/or logbooks would be necessary for this project (please include a sample copy)?

This assignment is due on
VISITATION REPORT TO LOCAL AGRIBUSINESS

Getting to know individuals who hire your students in placement situations will be an important activity for you as the coordinator of an SAE program. One way to fulfill this goal is to visit a supervisor of one of your students at the work site. The purpose of this assignment is to simulate the kind of visit that you will conduct to a placement site when you coordinate an agricultural education program. Sample questions to ask the supervisor have been provided for you, but you will be rewarded for generating your own set of questions related to the interview’s purpose and submitting those with your report.

There are many businesses near the Lafayette area that may hire agricultural education students. You are encouraged to visit one of the businesses as a team. If you visit a business outside of the Lafayette area, each member of the team must be involved in some way in the visit.

Directions: Contact the business you wish to visit and make an appointment to visit the establishment. Brainstorm with your partners and prepare a list of additional questions before you leave for your visit. Complete a report based on the questions you asked and other observations that you made. Please list the date, time, and location of the interview and the individual interviewed.

Note: Because of the amount of time it will take to adequately complete this assignment, the entire class will be compensated at some other date during the semester.

Questions

1. Could you please describe your business operation, and specifically some of the duties within it that a potential student would be required to perform?

2. Who would be responsible for the training of the student?

3. What vocational interest would a student need to enjoy working at ______________?  

4. Would a student be able to get at least 15 hours of work per week? (This is not a requirement.)

5. What kind of wages would a student start out at? Is there potential for pay raises?

6. Would the student be locked into one job, or would they be subjected to a variety of tasks to perform?

7. Would you be willing to work with the student’s SAE coordinator in the designing of a training agreement and in evaluating the student for grades?

8. Are you aware of the labor laws that apply to students, and especially those under the age of 18?
9. What kind of equipment would the student have the opportunity to operate?

10. Are there any hazardous tasks that the student would be required to perform?

11. Would the student, if they performed their job well, have the opportunity to become a full-time employee of the firm after they graduate from high school?

12. What kind of fringe benefits would be available? (i.e. sick days, vacation, etc.)

13. What are the business hours of operation?

14. Would your business be interested in more than one student?

15. What are your reactions and reflections concerning the suitability of this site for high school students in your classes?

This assignment is due on ________________________________
COMPLETION OF A PROFICIENCY AWARD APPLICATION

One of the more time consuming aspects of record keeping is completing award applications and documenting their accuracy and completeness. This can also be one of the more rewarding aspects when students are recognized on district, state, and national levels.

Using the records given in class, you are to complete the proficiency award application for the appropriate area. This is a team assignment, so only one application needs to be turned in. However, all team members should keep a copy of the completed application.

Instructions for accessing the National FFA Organization Proficiency applications:

Open the Local Program Success CD-ROM – Click on “SAE”

You now have access to the following related resources:

Proficiency Award Introduction
Proficiency Award Handbook
Proficiency Award Lessons

Proficiency Award Review Sheets
Proficiency Award Entrepreneurship Application
Proficiency Award Placement Application
DEVELOPING A RECORD BOOK SCORE SHEET

Situation: Designing alternative grading forms is an essential skill of any teacher. Adapting the grading scheme to fit the given assignment ensures a more complete evaluation of a student’s skills and furnishes a student with a better understanding of the intended outcomes. Therefore, practicing the procedures for designing a record book evaluation score sheet will enhance your skills in developing alternative grading schemes.

Assignment: You will develop two forms, 1) a record book score sheet and 2) a sheet that describes the procedures for summarizing the record book. I recommend utilizing others such as Agricultural Science and Business teachers, National FFA Center personnel, and individuals involved in Indiana FFA. Following are some questions you may want to consider prior to developing your score sheet.

1. How often should I evaluate a student’s record book?

2. What should I evaluate? What other forms should I evaluate besides those that contain numerical figures?

3. How can I elicit specific behaviors from my score sheet?

4. How can I provide directions and encouragement for students?

5. What percentage of a quarterly grade should be attributed to record book assignments?

Requirements for this assignment:

1. A typed record book score sheet that allows an instructor to effectively and comprehensively evaluate a student’s record book with a minimum amount of labor. (Maximum length=1 page)

2. A typed set of procedures for the annual summary of a student’s record book. This would be the instructions that you would give to your students.

3. A brief explanation on how you will incorporate record keeping in your overall grading procedures for your classes.

Note: This assignment is worth 50 points.

This assignment is due on
Completion of a State/American FFA Degree Application

Closely associated with a student's SAE program are the requirements for obtaining FFA degrees. Without accurate SAE records, a student cannot obtain his/her degrees above Chapter FFA degree.

Using the records given in class, you are to complete the Hoosier FFA Degree application. This is a team assignment, so only one application needs to be turned in. However, all team members should keep a copy of the completed application.
In-Class Case Study
“Digging Out”

You are a beginning teacher at Hoosier Central High School, there has been some turmoil in the agricultural education department in recent years with five agricultural instructors coming and going within the past six years. As an assertive teacher you feel record keeping should be an integral part of the curriculum. To your surprise, you find no records have been kept for the three years prior to your arrival. As a beginning agricultural instructor in a Central Indiana community, what are you going to do?

Parameters: Develop a step-by-step plan of action to share with the class.

Food for thought: What type of questions should you answer before beginning your plan of attack?
What considerations would an Agricultural Science and Business instructor/FFA Advisor have to make if planning/attending this activity with a group of students?
Agricultural Education
(511 IAC 6-7-6.1, 511 IAC 6.1-5.1-10.1, 511 IAC 6.1-5-3.5)

Agricultural Education is an active part of the curriculum for many high schools in Indiana. This program area combines the home, the school, and the community as the means of education in agriculture. The courses provide students with a solid foundation of academic knowledge and ample opportunities to apply this knowledge through classroom activities, laboratory experiments and project applications, supervised agricultural experiences, and the FFA.

The vision and mission of Agricultural Education is: that all people value and understand the vital role of agriculture, food, fiber, and natural resource systems in advancing personal and global well-being; and that students are prepared for successful careers and a lifetime of informed choices in agriculture.

The goals for Agricultural Science and Business students focus on providing learning experiences that will allow them to:

- Demonstrate desirable work ethics and work habits.
- Apply the basic agricultural competencies and the basic background knowledge in agriculture and related occupations.
- Analyze entrepreneurial, business, and management skills needed by students preparing to enter agriculture and related occupations.
- Expand leadership and participatory skills necessary for the development of productive and contributing citizens in our democratic society.
- Gain effective social and interpersonal communication skills.
- Be aware of career opportunities in agriculture and set career objectives.
- Acquire job-seeking, employability, and job-retention skills.
- Advance in a career through a program of continuing education and life-long learning.
- Apply the basic learning skills in reading, writing, thinking, mathematics, communicating, listening, and studying.
- Recognize the interaction of agriculture with governments and economic systems at the local, state, national, and international levels.
- Recognize how new technologies impact agriculture and how agriculture impacts the environment.

It is important to understand and reaffirm that career-technical experiences do not preclude students from going on to higher education; in fact participation actually enhances the opportunity. A growing number of students are combining both college preparation and workplace experiences in their high school preparation. Agricultural Science and Business and the FFA programs have a long history of successfully preparing students for entry level careers and further education and training in the science, business and technology of agriculture. The programs combine classroom instruction and hands-on career focused learning to develop students’ potential for premier leadership, personal growth, and career success.

Revised 6/1/06
**FFA**

The FFA is the career and technical education student organization that is an integral part of the instruction and operation of a total agricultural education program. As an intra-curricular organization and essential component of the total program, the local agricultural education teacher(s) serve as the FFA chapter advisors. The many activities of the FFA parallel the methodology of the instructional program and are directly related to the occupational goals and objectives. As an integral part of the instructional program, district and state level FFA activities provide students opportunities to demonstrate their proficiency in the knowledge, skills, and attitudes they have acquired through the agricultural science and agricultural business total program. Agricultural education students demonstrating a high degree of competence in state level FFA activities are highly encouraged to represent their local communities, districts, and state by participating in national FFA activities.

Instructional activities of the FFA require participation of the agricultural science and agriculture business education students as an integral part of an agricultural education course of instruction and, therefore, may be considered an appropriate use and amount of the allotted instructional time.

**Indiana Young Farmers’ Association (IYFA)**

The Indiana Young Farmers’ Association was founded in 1962 and is dedicated to furthering the educational, social, and personal opportunities of all individuals interested or involved in the agricultural industry. It acts as an avenue for continuous educational experiences for adults, so that they can take full advantage of the possibilities available in the world of agriculture. IYFA supports the needs of agricultural-based, rural communities by providing worthwhile community services, effective leadership training, and wholesome social and recreational activities for the entire family through involvement in various local, state and national activities. It is the mission of the Young Farmer program to provide the opportunity to agriculturists to enter the industry as well as upgrade the skills needed to be leaders in their chosen occupation. Agriculture has become one of the most intense and technologically advanced industries in the world.

**Middle Level**

**EXPLORING AGRICULTURAL SCIENCE AND BUSINESS**

**(GRADES 7 AND 8, OR GRADES 6, 7, AND 8)**

The Agricultural Science and Business curriculum for middle level students follows the state standards of the Fundamentals of Agricultural Science and Business course. There is flexibility in content due to the length of the course offered locally. The primary objective is to introduce students to the dynamic industry of agriculture while gaining an awareness of the importance, impact, and diversity of careers in agricultural science and business. The content provides a hands-on exploratory, science-based approach to agriscience as well as providing a broad-based coverage of horticulture, animal science, environmental science, biotechnology, agricultural economics, plant and soil science, and agricultural science and agribusiness tools and equipment.
Fundamentals of Agricultural Science and Business

5056

CIP Code: 01.0101

Fundamentals of Agricultural Science and Business is a yearlong course that is highly recommended as a prerequisite and foundation for all other agricultural classes. The nature of this course is to provide students with an introduction to careers and the fundamentals of agricultural science and business. Areas to be covered include: agricultural literacy, its importance and career opportunities, plant and soil science, environmental science, horticulture and landscape management, agricultural biotechnology, agricultural science and business tools and equipment, basic principles of and employability in the agricultural/horticultural industry, basic agribusiness principles and skills, developing leadership skills in agriculture, and supervised experience in agriculture/horticulture purposes and procedures. Student learning objectives are defined. Instruction includes not only agriculture education standards but many academic standards are included through the use of “hands-on” problem-solving individual and team activities.

- Suggested Grade Levels: 9 or by permission of teacher.
- Recommended Prerequisite: None
- A two-credit/two semester course. May be offered as year long course to 8th graders for high school credit.
- A Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diploma elective and directed elective course.
- A Career Academic Sequence, Career-Technical program, or Flex Credit course.
- Standards and learning activities defined.
- This course is included as a component of the Agriculture, Food and Natural Resources career cluster and may also be included as a component of the Building & Construction; Business, Management & Finance; Arts, A/V Technology & Communications; Health Services; and Science, Engineering & Information Technology career clusters.

Animal Science

5008

CIP Code: 01.0901

This course is a yearlong program that provides students with an overview of the field of animal science. Students participate in a large variety of activities and laboratory work including real and simulated animal science experiences and projects. Areas that the students study may be applied to both large and small animals. Topics to be addressed include; anatomy and physiology, genetics, reproduction and biotechnology, nutrition, aquaculture, careers in animal science, animal health, meeting environmental requirements of animals, and management practices for the care and maintenance of animals.

- Suggested Grade Levels: 10-12
- Recommended Prerequisite: Fundamentals of Agricultural Science and Business or by permission of teacher
• A two-credit/ two-semester course. This course can be offered for a second full year at an advanced level and may also be offered in a two or three hour block with a maximum of six credit hours.
• This course may fulfill up to two credits of the minimum science requirement for graduation.
• Animal Science may be offered as a small animal/large animal course and or include an advanced, local content specific application such as aquaculture.
• A Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diploma elective and directed elective course.
• A Career Academic Sequence, Career-Technical program, or Flex Credit course.
• Standards and learning activities defined.
• This course is included as a component of the Agriculture, Food and Natural Resources career cluster and may also be included as a component of the Science, Engineering & Information Technology; Personal & Commercial Services; Business, Management & Finance; Marketing, Sales & Promotion; and Health Services career clusters.

Food Science
5102
CIP Code: 01.0401

This course is a yearlong program that provides students with an overview of food science and it importance. Introduction to principles of food processing, food chemistry and physics, nutrition, food microbiology, preservation, packaging and labeling, food commodities, food regulations, issues and careers in the food science industry help students understand the role that food science plays in the securing of a safe, nutritious, and adequate food supply. A project-based approach is utilized along with laboratory, team building, and problem solving activities to enhance student learning.

• Suggested Grade Levels: 11-12
• Recommended Prerequisite: Fundamentals of Agricultural Science and Business or by permission of the teacher
• A two-credit/two-semester course.
• This course may fulfill up to two credits of the minimum science requirement for graduation.
• A Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diploma elective and directed elective course.
• A Career Academic Sequence, Career-Technical program, or Flex Credit course.
• Standards and learning activities defined.
• This course is included as a component of the Agriculture, Food and Natural Resources career cluster and may also be included as a component of the Science, Engineering & Information Technology; Personal & Commercial Services career clusters.
Horticultural Science

5132
CIP Code: 01.0603

Horticultural Science is a yearlong course designed to give students a background in the field of horticulture and its many career opportunities. It addresses the biology and technology involved in the production, processing, and marketing of horticultural plants and products. Topics covered include: reproduction and propagation of plants, plant growth, growth media, hydroponics, floriculture and floral design, management practices for field and greenhouse production, interior plantscapes, marketing concepts, production of herbaceous, woody, and nursery stock, fruit, nut, and vegetable production, integrated pest management and employability skills. Students participate in a variety of activities including extensive laboratory work usually in a school greenhouse.

- Suggested Grade Levels: 10-12
- Recommended Prerequisite: Fundamentals of Agricultural Science and Business or by permission of the teacher
- A two-credit/two-semester course. This course can be offered for a second full year at an advanced level and may also be offered in a two or three hour block for four semesters with a maximum of twelve credit hours.
- This course may fulfill up to two credits of the minimum science requirement for graduation.
- A Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diploma elective and directed elective course.
- A Career Academic Sequence, Career-Technical program, or Flex Credit course.
- Standards and learning activities defined.
- This course is included as a component of the Agriculture, Food and Natural Resources career cluster and may also be included as a component of the Business, Management & Finance; Marketing, Sales & Promotion; and Transportation, Distribution & Logistics; Arts, A/V Technology & Communications; Science, Engineering & Information Technology; Social & Recreation Services career clusters.

Plant and Soil Science

5170
CIP Code: 01.1102

Plant and Soil Science is a yearlong course that provides students with opportunities to participate in a variety of activities including laboratory work. Topics covered include: the taxonomy of plants, the various plant components and their functions, plant growth, plant reproduction and propagation, photosynthesis and respiration, environmental factors affecting plant growth, integrated pest management plants and their management, biotechnology, the basic components and types of soil, calculation of fertilizer application rates and procedures for application, soil tillage and conservation, irrigation and drainage, land measurement, grain and forage quality, cropping systems, precision agriculture, principles and benefits of global
positioning systems and new technologies, harvesting, and career opportunities in the field of plant and soil science.

- Suggested Grade Levels: 10-12
- Recommended Prerequisite: Fundamentals of Agricultural Science and Business or by permission of the teacher
- A two-credit/two-semester course.
- This course may fulfill up to two credits of the minimum science requirement for graduation.
- A Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diploma elective and directed elective course.
- A Core Academic Sequence, Career-Technical program, or Flex Credit course.
- Standards and learning activities defined.
- This course is included as a component of the Agriculture, Food and Natural Resources career cluster and may also be included as a component of the Business, Management & Finance; Marketing, Sales & Promotion; and Transportation, Distribution & Logistics career clusters.

**Agribusiness Management**

**5002**  
**CIP Code: 01.0102**

Agribusiness Management is a yearlong course that presents the concepts necessary for managing an agriculture-related business from a local and global perspective. Concepts covered in the course include: exploring careers in agribusiness, global visioning, applying E-commerce, risk management, understanding business management and structures, entrepreneurship, the planning, organizing, financing, and operation of an agribusiness, economic principles, credit, computerized record keeping, budgeting, fundamentals of cash flow, federal, state, property and sales tax, insurance, cooperatives, purchasing, the utilization of information technology in agribusiness, marketing agricultural products, developing a marketing plan, advertising and selling products and services, understanding consumers and buying trends, agricultural law applications and employability skills.

- Suggested Grade Levels: 11-12
- Recommended Prerequisite: Fundamentals of Agricultural Science and Business or by permission of the teacher
- A two-credit/two-semester course.
- A Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diploma elective and directed elective course.
- A Career Academic Sequence, Career-Technical program, or Flex Credit course.
- Standards and learning activities defined.
- This course is included as a component of the Agriculture, Food and Natural Resources career cluster and may also be included as a component of the Business, Management, and Finance; Manufacturing & Processing; Marketing, Sales & Promotion; Personal &
Agricultural Mechanization

5088
CIP Code: 01.0201

Agricultural Mechanization is a yearlong, lab intensive course in which students develop an understanding of basic principles of selection, operation, maintenance, and management of agricultural equipment in concert with utilization of safety and technology. Topics covered include: small and large gas and diesel engine repair, power transfer systems including hydraulic, pneumatic and robotic systems, arc, metal fabrication such as MIG, TIG and SMAW welding, concrete, wood, metal, electricity and electronics, recirculating aquaculture systems, hydroponics systems, surveying, precision farming equipment, remote sensing technology and global positioning systems equipment, building agriculture related buildings and structures including greenhouses, tillage, planting, irrigation, spraying, grain and forage harvesting, feed and animal waste management systems, agricultural industry communications and customer relations, safety and safety resources, career opportunities in the area of agricultural mechanization and employability skills.

- Suggested Grade Levels: 10-12
- Recommended Prerequisite: Fundamentals of Agricultural Science and Business or by permission of the teacher
- A two-credit/two-semester course. This course can be offered for a second full year at an advanced level and may also be offered in a two or three hour block for four semesters with a maximum of twelve credit hours.
- A Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diploma elective and directed elective course.
- A Career Academic Sequence, Career-Technical program, or Flex Credit course.
- Standards and learning activities defined.
- This course is included as a component of the Agriculture, Food and Natural Resources career cluster and may also be included as a component of the Building & Construction; Manufacturing & Processing; Mechanical Repair & Precision Crafts; and Science, Engineering & Information Technology career clusters.

Farm Management

5022
CIP Code: 01.0104

Farm Management is a yearlong course that introduces students to the principles of farm organization and management with the utilization of technology. It covers the effects of good and poor management on a farm, economic principles, decision-making, methods for organizing and planning, getting started in the farming business, farm record keeping systems, risk management, and career opportunities in the field of farm management.

- Suggested Grade Levels: 11-12
- Recommended Prerequisite: Fundamentals of Agricultural Science and Business or by permission of the teacher
- A two-credit/two-semester course.
- A Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diploma elective and directed elective course.
- A Career Academic Sequence, Career-Technical program, or Flex Credit course.
- Standards and learning activities defined.
- This course is included as a component of the Agriculture, Food and Natural Resources career cluster and may also be included as a component of the Business, Management, and Finance; Marketing, Sales & Promotion career clusters.

**Landscape Management**

5136  
CIP Code: 01.0605

Landscape Management is a yearlong course that provides the student with an overview of the many career opportunities in the diverse field of landscape management. Students are introduced to the procedures used in the planning and design of a landscape using current technology practices, the principles and procedures involved with landscape construction, the determination of maintenance schedules, communications, management and employability skills necessary in landscaping operations, and the care and use of equipment utilized by landscapers. Upon completion of the program, students have the opportunity to receive an industry approved State Certificate of Mastery in Landscape Management.

- Suggested Grade Levels: 10-12
- Recommended Prerequisite: None
- A two-credit/two-semester course. This course can be offered for a second full year at an advanced level and may also be offered in a two or three hour block for four semesters with a maximum of twelve credit hours.
- A Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diploma elective and directed elective course.
- A Career Academic Sequence, Career-Technical program, or Flex Credit course.
- Standards and learning activities defined.
- This course is included as a component of the Agriculture, Food and Natural Resources career cluster and may also be included as a component of the Arts, A/V Technology & Communications; Building & Construction; Marketing, Sales & Promotion; and Business, Management and Finance career clusters.

**Natural Resource Management**

5180  
CIP Code: 03.0299

This course is a yearlong program that provides students with a background in natural resource management. Students are introduced to career opportunities in natural resource management and related industries, understanding forest ecology importance, recognizing trees and their
products, tree growth and development, forest management, measuring trees, timber stand improvement and urban forestry, soil features, erosion and management practices, conservation practices, water cycles, uses, quality standards, reducing water pollution, conducting water quality tests, watersheds, and its importance to natural resource management, hazardous waste management, native wildlife, waterfowl, wetlands, and fish management, topography map use, management of recreational areas, game bird and animal management, outdoor safety, and weather. “Hands-on” learning activities encourage students to investigate areas of environmental concern including: identification and management of ecosystems, natural succession identification, natural communities, recycling and management of waste in the environment, soil conservation management practices, land uses, and air quality.

- Suggested Grade Levels: 10-12
- Recommended Prerequisite: None
- A Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diploma elective and directed elective course.
- A Career Academic Sequence, Career-Technical program, or Flex Credit course.
- Standards and learning activities defined.
- This course is included as a component of the Agriculture, Food and Natural Resources career cluster and may also be included as a component of the Arts, A/V Technology & Communications; Business, Management & Finance; Law, Public Safety & Security; Manufacturing & Processing; Marketing, Sales & Promotion; Social & Recreation Services; Transportation, Distribution & Logistics career clusters.

**SUPERVISED AGRICULTURAL EXPERIENCE (SAE)**

5228

CIP CODE: SAE COOPERATIVE EDUCATION – FUNDED BY -AG CIP APPROPRIATE FOR TRAINING SITE

CIP CODE: NON-COOPERATIVE – NOT FUNDED BY STATE BUT MAYBE OFFERED FOR CREDIT LOCALLY

Supervised Agricultural Experience (SAE) is designed to provide students with opportunities to gain experience in the agriculture field(s) in which they are interested. Students should experience and apply what is learned in the classroom, laboratory, and training site to real-life situations. Students work closely with their agricultural science and business teacher(s), parents, and/or employers to get the most out of their SAE program. This course can be offered each year as well as during the summer session. SAE may be offered as a Cooperative Education Program. Curriculum content and competencies should be varied so that school year and summer session experiences are not duplicated.

- Suggested Grade Levels: 10-12
- Recommended Prerequisite: Fundamentals of Agricultural Science and Business
- A maximum of eight credits can be earned in this course when offered as a one hour course/eight semesters, some of which can be earned during summer sessions. Curriculum content and competencies should not be duplicated when multiple credits are being earned.
• As Cooperative Education: one credit related instruction two credits on the job training/four semesters = 12 credit hours (on the job training credit hours may be increased in approved situations).
• A Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diploma elective and directed elective course.
• A Career Academic Sequence, Career-Technical program, or Flex Credit course.
• Standards and learning activities defined.
• This course is included as a component of the Agriculture, Food and Natural Resources career cluster and may also be included as a component of the Arts, A/V Technology & Communications; Building & Construction; Education & Training; Law, Public Safety & Security; Manufacturing & Processing; Marketing, Sales & Promotion; Mechanical Repair & Precision Crafts; Personal & Commercial Services; Science, Engineering & Information Technology; Social & Recreation Services; Transportation, Distribution & Logistics; Business, Management and Finances; and Health Services career clusters.

**Advanced Life Science, Animals (L)**

5070  
CIP Code: 26.0701

Advanced Life Science, Animals, is a standards-based, interdisciplinary science course that integrates biology, chemistry, and microbiology in an agricultural context. Students enrolled in this course formulate, design, and carry out animal-based laboratory and field investigations as an essential course component. Students investigate key concepts that enable them to understand animal growth, development and physiology as it pertains to agricultural science. This course stresses the unifying themes of both biology and chemistry as students work with concepts associated with animal taxonomy, life at the cellular level, organ systems, genetics, evolution, ecology, and historical and current issues in animal agriculture. Students completing this course will be able to apply the principles of scientific inquiry to solve problems related to biology and chemistry in highly advanced agricultural applications of animal development.

• Suggested Grade Levels: 11-12
• Highly Recommended Prerequisite: Biology and Chemistry due to course content standards
• A two semester course, one credit per semester
• Counts as two credits of Core 40 Science.
• A Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diploma elective and directed elective course.
• A Career Academic Sequence, Career-Technical program, or Flex Credit course.
• Content standards and competencies are defined.
• Standards and learning activities defined.
• This course is included as a component of the Agriculture, Food and Natural Resources career cluster and may also be included as a component of the Science, Engineering & Information Technology; Personal & Commercial Services; Business, Management & Finance; Marketing, Sales & Promotion; and Health Services career clusters.
Advanced Life Science, Plant and Soil (L)

5074
CIP: 26.0301

Advanced Life Science, Plant and Soil, is a standards-based, interdisciplinary science course that integrates the study of advanced biology, chemistry, and earth science in an agricultural context. Students enrolled in this course formulate, design, and implement agriculturally-based laboratory and field investigations as an essential course component. These extended laboratory and literature investigations focus on the chemical reactions of matter in living and nonliving materials while stressing the unifying themes of chemistry and the development of physical and mathematical models of matter and its interactions. Using the principles of scientific inquiry, students examine the internal structures, functions, genetics and processes of living plant organisms and their interaction with the environmental. Students completing this course will be able to apply the principles of scientific inquiry to solve problems related to both biology and chemistry in the context of highly advanced agricultural applications of plants and soils.

- Highly Recommended Prerequisite: Biology and Chemistry due to course content standards
- A two semester course, one credit per semester
- Counts as two credits of Core 40 Science.
- A Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diploma elective and directed elective course.
- A Career Academic Sequence, Career-Technical program, or Flex Credit course.
- Content standards and competencies are defined.
- This course is included as a component of the Agriculture, Food and Natural Resources career cluster and may also be included as a component of the Business, Management & Finance; Marketing, Sales & Promotion; and Transportation, Distribution & Logistics career clusters.

Advanced Life Science, Foods (L)

5072
CIP CODE: 01.1001

Advanced Life Science, Foods, is a standards-based, interdisciplinary science course that integrates biology, chemistry, and microbiology in an agricultural context. Students enrolled in this course formulate, design, and carry out food based laboratory and field investigations as an essential course component. Students understand how biology, chemistry, and physics principles apply to the composition of foods, food nutrition and development, food processing, and storage. Students completing this course will be able to apply the principles of scientific inquiry to solve problems related to biology, physics and chemistry the context of highly advanced agricultural applications of food.
- Highly Recommended Prerequisite: Biology and Chemistry due to course content standards
- A two semester course, one credit per semester
- Counts as two credits of Core 40 Science.
- A Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diploma elective and directed elective course.
- A Career Academic Sequence, Career-Technical program, or Flex Credit course.
- Content standards and competencies are defined.
- This course is included as a component of the Agriculture, Food and Natural Resources career cluster and may also be included as a component of the Business, Management & Finance; Health Services; Law, Public Safety, & Security; Marketing, Sales & Promotion; Science, Engineering & Information Technology; and Personal & Commercial Services career clusters.
SAE Lesson One

ANNOUNCEMENTS: _____________________________________________________

I. Unit: Introduction to Supervised Agricultural Experience Programs

II. Lesson: Course Objectives and Expectations. The history and philosophy of SAE programs in agricultural science and business programs.

III. Objectives:

Upon completion of this lesson, participants will be able to:

1. Explain course expectations, requirements and weekly class outline.

2. Describe a working knowledge of the history of SAEP and its' significance as an educational initiative in agricultural education.

3. Draw the components in the agriculture education program model and associate the significance of each primary constituent and their role.

4. Explain the significance of SAEP and its connection to our communities.

IV. Questions

1. What do you specifically want to gain from this course?

2. Did you participate in high school agriculture?

3. What was your SAE and what did you learn from your SAE?

4. How does SAE fit into secondary agricultural education programs?

5. What is the value of SAE in the 1990's?

6. How do you like to learn?
7. What can SAE do for a student/FFA member?

8. What can SAE do for a "total agricultural" program? -- for the community?

9. Can SAEs become competitive in nature?

ASSIGNMENT:

Take the Solomon and Felder Learning Style online test at http://adulted.about.com/cs/learningstyles/a/lrng_style.htm

Print out the results and bring it to class. Discussion will center around various learning styles and how SAE can assist students in your classroom.
SAE Lesson Two

ANNOUNCEMENTS: _____________________________________________________

I. Unit: Introduction to Supervised Agricultural Experience Programs

II. Lesson: The purpose/rationale for supervised agricultural experience programs

III. Objectives:
Upon completion of this lesson, participants should be able to:

1. Define the purpose of SAE in agricultural education programs.

2. Identify the various types of SAE’s.

3. Explain the agriculture instructor's role in coordinating student SAEs.

4. Examine the relationship of SAE’s and successful learning experiences.

IV. Questions to consider:

1. What is the purpose of SAEP in agricultural education programs?

2. Why have SAE Programs?

3. What is the responsibility of the agriculture instructor in organizing SAEs?

4. What is the relationship of SAEPs and successful learning experiences?

ASSIGNMENTS:
SAE Lesson Two

WHY HAVE AN SAE PROGRAM?

The time is Mid-September 2005. You are an agriculture instructor/FFA advisor at Hoosier Central High School. Recently, some concerned parents, a local farmer who hires your students and the football coach, have questioned your need for Supervised Agricultural Experience Programs. The parents feel their son/daughter does not need to keep detailed records to prepare for your viewing, the farmer does not like you to visit his farm because he does not understand your purpose, and the football coach obviously feels good intelligent aggie boys should be going to practice on demand in the late summer and fall, as well as condition themselves in the spring.

About the school and the program:

Hoosier Central has 450 students in a community of 8,250 people. You are a first year teacher working with 20 students in Fundamentals of Agricultural Science and Business. Your predecessor did not stress Supervised Agricultural Experiences and therefore neither the school nor the community understands what you’re trying to do.

Questions to Consider:

How can you prove to your principal that SAE is an essential part of your total program, and convince him/her student's are adding to their education by actively involving themselves in outside school endeavors?

How can you convince the local farmers and others who may have the same concerns, of the real need for you to visit your students on their farms and at their place of business?

What will you do to quiet the fears of the parents who feel you are prying into their family's affairs by asking students to keep accurate record books?

Since you are competing for the time of many of the same students, what type of relationship and mutual agreement can your department and students develop with the athletic coaches to better understand each other?
Reasons for SAE Programs:
1. Provides opportunity for development of proficiencies needed in agriculture
2. Provides avenue for establishing in entrepreneurial endeavors
3. Provides opportunity to earn, save, and invest money
4. Provides motivation and sparks desire to learn
5. Develops student's originality, pride of ownership, initiative, self-confidence
6. Develops habits and appreciation for true to life experiences
7. Provides opportunities for students to plan, work, make budgets, use financial agreements, use problem solving skills, make decisions and keep accurate records
8. Provides opportunities to contribute to home and community
9. Develop parent-teacher-student cooperative relationships
10. Provides basis for evaluating effectiveness of class instruction in agriculture

Responsibilities of Agriculture Instructors in Organizing SAEs:
1. Identify appropriate SAE opportunities in the community
2. Ensure that SAE programs truly represent meaningful learning activities that will benefit students, the agriculture education program, and the community
3. Inform school administrators about SAE and secure their support
4. Provide classroom instruction on SAE
5. Adopt a suitable record keeping system for the students to keep accurate financial transactions, and record student competency development, and FFA activities
6. Clearly communicate to the other partners the purposes and procedures of SAEs
7. Help students select quality SAE programs based on their individual aptitudes and abilities
8. Assist students in planning SAE programs and acquiring needed resources
9. Provide adequate and meaningful supervision to students
10. Coordinate among students, parents, and employers
11. Provide individual student instruction related to his/her SAE program
12. Evaluate SAE programs
13. Encourage students to improve SAE programs
14. Provide employers, parents, guardians, and students sufficient advance notice of supervisory visits
15. Select and secure appropriate training stations
16. Evaluate training stations for suitability of SAE programs

Relationship of SAEs and Successful Learning Experiences:
They allow the instructor to:
   a. Teach individually those things which need to be taught but are not handled in group discussion
   b. Help students evaluate what they are doing, their progress, plans, and shortcomings
   c. Help students overcome the difficulties and obstacles interfering with their program
   d. Discuss with students significant things that need to be done in order to carry out long range plans
   e. Point out good practices that are applicable to the experience program
   f. Assist students in analyzing records and discuss future plans
SAE Lesson Three

ANNOUNCEMENTS: _____________________________________________________

I. Unit: SAE in Indiana Agricultural Science and Business Programs

II. Lesson: The Teacher’s Role in SAE

III. Objectives:

Upon completion of this lesson, participants will be able to:

1. Identify the supporting roles the advisor plays in SAE coordination.

2. Acquire the ability to effectively select and evaluate training station suitability.

3. Describe the measurement tools involved in monitoring student SAE.

4. Clearly communicate purposes and procedures of SAE programs to school administrators, parents, students and training station supervisors.

IV. Questions to Consider:

1. What supporting roles does the FFA advisor play?

2. How is student performance regarding SAEP measured?

3. What steps are involved in selecting and evaluating a training station?

4. How do you maintain effective communication lines with partners?

5. What should you communicate to partners? ....and when?

References:

ASSIGNMENTS:
# What is the Job of an Agricultural Science and Business Teacher?

<table>
<thead>
<tr>
<th><strong>Teacher</strong></th>
<th><strong>FFA Advisor</strong></th>
<th><strong>SAE Supervisor</strong></th>
</tr>
</thead>
</table>
| * 11 Courses  
- Develop lessons using curriculum guides, references, & local resources  
- Organize instruction throughout the semester and year  
- Develop, coordinate, & conduct laboratory and field experiences  
- Write and administer tests, etc. and conduct other evaluations  
* Stay Current in the Profession  
- Read magazines, journals, etc.  
- Participate in in-service activities  
- Participate in seminars, workshops, field days, etc.  
- Take at least 6 hours of graduate work every 5 years  
* Work Within the School Community  
- Committees and meetings  
- Cooperate with guidance counselors, librarian, administrators, & other staff  
- Cooperate w/other content area teachers  
SAE Lesson Three | * Advisor of Chapter  
- Provide guidance  
- Maintain files, records, reports, etc.  
- Suggest, steer, prod  
- Watch finances  
* Coach  
- Judging teams  
- Individual competitions  
- Bring in outside experts when needed  
- Register, travel arrangements, etc.  
* Leadership and Personal Development  
- Be a mentor  
- Be a role model  
- Teach leadership, parly pro, personal and social skills  
* Organizer  
- Records  
- SAE sites  
- Visits  
- Determine interests, aptitudes, and goals | * Teacher  
- record keeping  
- organize opportunities  
- Communicate to all involved parties  
- Encourage and advise  
- Evaluate the experience, student, and SAE program  
- Provide individualized instruction  
- Guide over the long-term  
* Organizer  
- Records  
- SAE sites  
- Visits  
- Determine interests, aptitudes, and goals |
On the dates listed below, Agriculture Instructor, Mr. I. B. A. Boilermaker will be conducting pre-enrollment visits to the homes of prospective Agricultural Science and Business students. Topics to be discussed will include an explanation of course offerings in Agricultural Science and Business, a description of the FFA organization, the Supervised Agricultural Experience Program, and Insurance for the students. Please make arrangements to be at home on the date listed in the morning or afternoon, as your name appears on the list. It is recommended that one of the parents be at home at the time of the visit. If it is not possible for you to be at home, please contact Mr. Boilermaker before your visit at 555-1234 or 555-5678.

Disregard this visitation notice if you have elected not to take Agriculture. If I do not see you at enrollment, I will call you to confirm this visitation appointment.

See you soon,

Mr. Boilermaker
SAE Lesson Four

ANNOUNCEMENTS: _____________________________________________________

I. Unit: Introduction to Supervised Agricultural Experience Programs

II. Lesson: Relationship of SAE and FFA

III. Objectives:

Upon completion of this lesson, participants will be able to:

1. Argue why competition promotes keener participation by FFA members
2. Explain how the supervised agricultural experience programs are related to the FFA program and to the instructional program.
3. Demonstrate how SAE encourages improvement of the FFA member's home, school and community.
4. Display a working knowledge of the FFA award programs related to supervised agricultural experience programs.

IV. Questions to Consider:

1. Why is SAE part of the FFA program?

2. What are the award areas related to SAEP?

3. What are the proficiency award project areas?

4. Does keen competition promote SAEP? For the better/worse?

5. What is the link between FFA, classroom instruction and SAEP?

6. How does the SAE program improve the individual; his/her home, school and community?

ASSIGNMENTS:

References: FFA Proficiency Handbook, pages 1-8
FFA Proficiency Areas for 2006

The FFA proficiency award program consists of several award areas. An award area may have both entrepreneurship (E) and placement (P) pooled together or they may be separated. There will only be two separate application forms. A student will place a label sticker on the application for the appropriate award area. Each May 1st specific award areas will be identified for the following year. This list will be published in the Fall edition of FFA Advisors Making a Difference. The proficiency award program recognizes excellence in a SAE program, highlights exceptional accomplishments, and promotes progress toward specific career objectives in agriculture.

For the latest information concerning these award areas please access:

SAE Lesson Five

ANNOUNCEMENTS: _____________________________________________________

I. Unit: SAEs in Indiana Agricultural Science and Business Programs

II. Lesson: Requirements of Productive SAEs and Writing Agreement Plans

III. Objectives:

Upon completion of this lesson, participants will be able to:

1. Determine what methods are used to motivate students to excel in SAE programs.

2. List 10 steps in opening an SAE record book

3. Select the type of agreements needed for supervised production and agribusiness experience programs.

4. Create and organize a student supervised experience program plan.

IV. Questions to Consider:

1. What are the essentials in launching SAEs?

2. What methods are used to motivate students to excel in SAEs?

3. Why are improvement projects and supplementary experiences important?

4. What are the steps in opening a record book?

5. What role do business agreements play?

6. What should be included in an agreement?

7. What should be included in a SAE plan?

References: Indiana Computer Record Book
<table>
<thead>
<tr>
<th>Entrepreneurship</th>
<th>Placement</th>
<th>Exploratory</th>
</tr>
</thead>
</table>

EDCI 318
Purdue University

List of Possible SAEs
Developed by EDCI 318 Students
SPECIALTY ENTERPRISES

Animal Groups
A. Specialty Production Animals
   Alligators
   Buffalo (Native and Water)
   Bull Frogs
   Escargot
   Fur bearing animals
   Milk goats
   Rabbits
   Rats for research
   Snakes
   Worms
B. Recreational Animals
   Gerbils
   Guinea Pigs
   Hamsters
   Llamas
   Miniatures cattle/horses/goats
   Mules and Donkeys
   Ponies
   Sport and performance dogs
C. Shell Fish
   Crabs
   Crawfish
   Oysters
   Shrimp
D. Fish
   Companion fish (goldfish, tropical fish)
   Fish for bait (minnows)
   Production fish (catfish)
E. Insects
   Beneficial Insects (honey bees, lady bugs)
   Insects for Fish Bait (crickets, grasshoppers)
   Insects for research
F. Specialty Poultry and Birds
   Exotic Chickens (bantams, anacondas)
   Exotic Birds (peafowl, guinea, ostrich, emu)
   Game Birds (quail, pheasant, pigeons, chuckar)
   House Birds (parakeets, cockatoos)
   Water Fowl (ducks, geese)

Plant Groups
A. Specialty Fruits and Vegetables
   Berries
   Ethnic vegetables
   Grapes
   Herbs
   Miniature vegetables
   Mushrooms
   Pumpkins
   Sprouts
B. Native Plants, Seeds, and Beans
   Bird seed
   Popcorn
   Specialty beans
   Specialty trees
   Wild flowers
C. Ornamental Plants
   Cacti
   Christmas trees
   Gourds
   Mistletoe
   Native shrubs
EDCI 318 EVALUATION

If I were teaching this class, I would

This class could be improved by

The worst part of this class is

The best part of this class is

I now have a better understanding of the philosophy and rationale of SAEPs:

_______ Yes   _________ No   ________ Somewhat

Supervised Agricultural Experience is

_____ something I was familiar with when this class began.

_____ something I was not familiar with when this class began.

_____ I enrolled in Agricultural Education courses in high school.

_____ I never enrolled in Agricultural education courses in high school.

Thank you for your help and cooperation!
SAE Lesson Six

ANNOUNCEMENTS: _______________________________________________________

I. Unit: SAEs in Indiana Agricultural Science and Business Programs

II. Lesson: The Indiana Record Book System and SAE Course Content

III. Objectives:
Upon completion of this lesson, participants will be able to:

1. Develop instructional techniques to facilitate basic record keeping skills.
2. Weigh the advantages and disadvantages of offering SAE as a course versus as independent study.
3. Use the SAE curriculum to develop a semester-long course in SAE.
4. Incorporate SAE into lesson plans for classroom instruction.
5. Develop classroom problem-solving exercises using examples from students’ SAE programs.

IV. Questions to Consider:

1. What record keeping systems are available?

2. How do you teach record keeping?

3. How does SAE instruction fit into the overall curriculum?

4. What are the advantages and disadvantages of each record keeping system?

5. What competencies should be included in an SAE course?

6. How should instruction be organized in an SAE course?

7. What SAE skills, knowledge, and attitudes should be incorporated into lessons for the 10 other agriculture courses?

8. Why should SAE be included in classroom instruction?
9. How should SAE be used for classroom problem-solving instruction?

References: SAE Instructor's Guide, SAE Student Reference, Indiana Record Book
http://www.ydae.purdue.edu/Record_Book/

ASSIGNMENTS:
SAE Lesson Seven

ANNOUNCEMENTS: _____________________________________________________

I. Unit: SAEs in Indiana Agricultural Science and Business Programs

II. Lesson: Developing a Business Plan for SAEs

III. Objectives:

Upon completion of this lesson, participants will be able to:

1. Develop instructional techniques to facilitate basic record keeping skills
2. Create an enterprise budget separating receipts, fixed and variable costs
3. Record depreciation and report inventories
4. Complete an income statement and balance sheet

IV. Questions to Consider:

1. How is a budget completed for an SAE program?

2. Why is it important to keep an accurate inventory?

3. How are beginning inventories completed?

4. What are the methods to record depreciation?

5. What is the purpose of an income statement and balance sheet?

References: SAE Instructor's Guide Unit II Lessons 1 - 3, Indiana Record Book
http://www.ydae.purdue.edu/Record_Book/

ASSIGNMENTS:
SAE Lesson Eight

ANNOUNCEMENTS: _____________________________________________________

I. Unit: SAEs in Indiana Agricultural Science and Business Programs

II. Lesson: Keeping records for the agricultural business and placement program

III. Objectives:

Upon completion of this lesson, participants will be able to:

1. Explain the difference between a cash flow statement and a budget.
2. Record receipts and expenditures in the record book
3. Record non-financial miscellaneous crop and livestock records

IV. Questions to Consider...

1. How does a budget differ from a cash flow statement?
2. How are receipts recorded in the record book?
3. How are expenditures recorded in the record book?
4. How are receipts and expenditures totaled at the end of the month?
5. What additional crop and livestock information should be recorded?

References: SAE Instructors Guide Unit II Lesson 4, Indiana Record Book
http://www.ydae.purdue.edu/Record_Book/

ASSIGNMENTS:
SAE Lesson Nine

ANNOUNCEMENTS: _____________________________________________________

I. Unit: SAE’s in Indiana Agricultural Science and Business Programs

II. Lesson: Recording FFA Activities and Completing Net Worth and Profit and Loss Statements

III. Objectives:

Upon completion of this lesson, participants will be able to:

1. Describe the components of a Net Worth statement.

2. Complete a profit and loss statement.

3. Record FFA activities and achievements in record book.

IV. Questions to Consider...

1. What is the purpose of a net Worth Statement? What are its components?

2. When is a Profit and Loss Statement used?

3. How is a Profit and Loss Statement completed?

4. How are FFA activities and achievements properly recorded?

References: SAE Instructors Guide Unit II Lesson 5 and Unit III Lessons 1-3, Indiana Record Book

ASSIGNMENTS:

Computerized Record Book Entries http://www.ydae.purdue.edu/Record_Book/
SAE Lesson Ten

ANNOUNCEMENTS: _____________________________________________________

I. Unit: SAEs in Indiana Agricultural Science and Business Programs

II. Lesson: Using SAE record books for local, state, and national award documentation

III. Objectives:

Upon completion of this lesson, participants will be able to:

1. Record FFA awards and activities summary.

2. Accurately complete a profit & loss statement.

3. Explain the purpose of additional record book forms.

Questions to Consider:

1. What FFA records should be recorded each month?

2. What is the purpose of additional forms?

3. What entries are made on a profit and loss statement?

4. How is the profit and loss statement used as a tool?

5. How is the summary page (Form 12) completed?


ASSIGNMENTS:

Computerized Record Book Entries http://www.ydae.purdue.edu/Record_Book/
SAE Lesson Eleven

ANNOUNCEMENTS: _____________________________________________________

I. Unit: SAE's in Indiana Agricultural Science and Business Programs

II. Lesson: Closing Record Books

III. Objectives:

Upon completion of this lesson, participants will be able to:

1. Explain what forms should be used to summarize year end records.

2. Conduct an enterprise analysis of an SAE program.

3. Describe what information is needed to complete an SAE summary.

IV. Questions to Consider:

1. What forms should be used to summarize the year's records?

2. How is depreciation recorded?

3. What are some points we can evaluate on the financial statement?

4. How does net worth reveal the progress of the SAE program?

5. How are enterprises analyzed in the SAE program?

6. What are some ways to increase returns from your SAE program?

References: IML Instructors Guide, Indiana Record Book
http://www.ydae.purdue.edu/Record_Book/

SAE Lesson Twelve
ANNOUNCEMENTS:

I. Unit: SAE's in Indiana Agricultural Science and Business Programs

II. Lesson: Evaluating Record Books

III. Objectives:

Upon completion of this lesson, participants will be able to:

1. Evaluate student record keeping skills with fairness using rationale from EDCI 318.

2. Recommend a proficiency award area to a student based upon previous records.

3. Initiate the completion process for a proficiency award area.

IV. Questions to Consider:

1. What factors should be taken into consideration when recommending a proficiency area to a student?

2. When should a proficiency area be recommended to a student?

3. What is the most expedient method to evaluate a student's SAE?

4. What are the initial steps in completing a proficiency application?

5. What records must be kept to derive efficiency factors?


SAE Lesson Thirteen
ANNOUNCEMENTS: _____________________________________________________

I. Unit: SAEs in Indiana Agricultural Science and Business Programs

II. Lesson: Developing a record book grading system

III. Objectives:

Upon completion of this lesson, participants will be able to:

1. Create a record book grading system and scorecard utilizing a basis of criteria for evaluation.

2. Evaluate a student record book objectively.

3. Assist a student in determining the type of information to be recorded and how to properly document records.

IV. Questions to Consider:

1. What should be considered when creating an unbiased scoring system?

2. How often should record books be checked and graded?

3. What types of criteria should be included in the evaluation of a student record book?

4. List three methods that may be used to evaluate student records?

5. How does an instructor reinforce positive behavior for completing records?

V. References:  IML Instructor’s Guide, Indiana Record Book Team Assignments

ASSIGNMENTS:

Developing A Record Book Score Sheet
SAE Lesson Fourteen

ANNOUNCEMENTS:

I. Unit: SAEs in Indiana Agricultural Science and Business Programs

II. Lesson: Completing FFA Award Applications

III. Objectives:

Upon completion of this lesson, participants will be able to:

1. Identify resources available to assist students and Agricultural Science and Business instructors in filling out Agricultural Proficiency award applications.

2. Identify appropriate techniques for guiding students in completing Agricultural Proficiency award applications.

3. Complete all sections of the FFA proficiency forms.
   
   To include - efficiency factors relevant to crop/livestock enterprises; Marketing information statements; Quality student/instructor statements.

4. Understand the role of the agribusiness instructor and the student in completing award applications.

5. Prepare the basics of an FFA proficiency award application.

6. Transfer SAE records to the FFA award application.

IV. Questions to Consider:

1. What is the purpose of the FFA proficiency award program?

2. What is the role of the advisor in completing applications?

3. How do you determine which award area a student should compete in?

4. What is the reasoning for outlining skills and competencies and efficiency factors?

5. What are the general procedures for completing an award application?
6. When should award applications be completed?

V. References:  FFA Proficiency Handbook
                Indiana FFA Proficiency Workshop Materials

ASSIGNMENTS:

1. Complete a Proficiency award based upon the information contained in the Record Book Case study.

2. Complete the Hoosier Degree using the information in the Record Book Case Study.

3. Complete the American FFA degree using the National FFA Organization’s computer software package
SAE Lesson Fifteen

ANNOUNCEMENTS: _____________________________________________________

I. Unit: SAEs in Indiana Agricultural Science and Business Programs

II. Lesson: Planning a Summer Program with Considerations for SAE’s

III. Objectives:

Upon completion of this lesson, participants will be able to:

1. Determine the benefits of a summer agricultural education program.

2. Outline the organization and implementation of a summer program.

3. Identify the logistical considerations of implementing a summer SAE Program.

IV. Questions to Consider:

1. Why have a summer program?

2. What is involved in a summer program for agriculture instructors?

3. What is an agriculture instructor's obligation to students, parents, employers, others who are involved during the summer program?

Assignment:
SAE Summer Course Guidelines

**Minimum Requirements:** *

1. Minimum of 15 students enrolled (state requirement)
2. Supervising teacher is the local and appropriate Agricultural Education Instructor.
3. Site visits of SAE Programs - 1 1/2 to 2 hours per student; 2 visits per student.
4. Use of record books required for a grade and credit to be issued.
5. Eight (8) weeks minimum length of course and teacher’s contract. Approximately 75% of teacher’s contract can be reimbursed. Request must be submitted through Area Vocational Director by April 1.
6. No classroom will be required if students are continuing agriculture students with SAEs. Continuing is defined as enrolled in agricultural science and business courses in past spring semester and upcoming fall semester.
7. Course must be for at least one half of a credit.
8. Minimum outcomes are, students must be able to cite:
   a. 10 new skills
   b. 6 problems/practices improved
   c. 3 improvement projects at home/farmstead or placement. These should improve the beauty, value, or efficiency of the location.
   d. a letter of agreement between teacher, parent or employer, and student that clarifies what is expected of whom and who will do what. It is recommended that Forms 100 and/or 101 from the *Indiana Agricultural Record Book for Secondary Students* be completed and placed on file before the experience begins.

**Additional Recommended Requirements:**

1. Each student’s project must be approved by the Agricultural Education Instructor. The project can be either entrepreneurship or placement; however, exceptional exploratory or experimental projects may be approved. Each student must accumulate a minimum of 80 hours of approved work in their experience area. This work should not be the same for all 80 hours. Thus, the student must be exposed to new learning experiences throughout the duration of the class.
2. Conduct an SAE field trip to various production and placement sites. These could include sites from current or previous agricultural science and business students or potential sites for the future.
3. Each student must keep a daily log of experiences and competencies gained. This can be kept on Form 102 of the *Indiana Agricultural Record Book for Secondary Students*.
4. Each student is encouraged to attend at least one session of the Indiana FFA State Convention in June. Many of the awards and recognition given are a direct result of excellence in an SAE program.
5. In addition to placing records in the *Indiana Agricultural Record Book for Secondary Students*, students are encouraged to keep computer records.
6. Each student will fill out an application for the next highest FFA degree that they can obtain and a proficiency application in the area related to their SAE program.
7. Offer two summer meeting on SAE topics. For students not already exposed to SAE and the Indiana Agricultural Record Book for Secondary Students, in-school meetings (classes) must be held.

8. Participation in summer leadership and service activities is encouraged and can be used to improve a student’s grade.

9. Grades should be determined using set criteria based on the degree to which course requirements are met. Accommodations should be made to serve the needs of students for their present situation.

Additional Requirements to Offer SAE as a Cooperative Education Program: *(C.I.P. code 01.0000 Supervised Agricultural Experience (Cooperative Education))*

1. The training agreement must be signed by student, employer, parent, and teacher.
2. The employment must comply with all state and federal laws.
3. Related classroom instruction must be provided and must be for credit.
4. Students receive release time from school schedules.
5. Students must be employed at least 15 hours per week on average.
6. Teacher must have coordination time during the same time as students are released.
7. The teacher must have a cooperative license/certification.
8. Students using placement cannot be on their own parents farm/business operation.
9. Other SAE guidelines and requirements apply.

* Compiled from a list developed and distributed by Mr. Bob Juncker, Indiana Agricultural Education Specialist.
SAE Lesson Sixteen

ANNOUNCEMENTS: _____________________________________________________

I. Unit: SAEs in Indiana Agricultural Science and Business Programs

II. Lesson: On-Site Visitation

III. Objectives:

Upon completion of this lesson, participants will be able to:

1. Develop a rationale for conducting an on-site visitation program.
2. Describe the processes involved in conducting an on-site visitation.
3. Discuss the differences / similarities and advantages / disadvantages of in-school conferences and on-site visitations.

IV. Questions to Consider:

1. What are the advantages and disadvantages of on-site visitations?
2. Why should students receive individualized instruction?
3. What are the steps involved in conducting an on-site visitation?
4. Who should be involved in the visit?
5. How should the visit be documented?
6. What questions should be asked and answered on the visit?

Assignment:
SAE Lesson Seventeen

ANNOUNCEMENTS: _____________________________________________________

I. Unit: SAE's in Indiana Agricultural Science and Business Programs

II. Lesson: Developing a Year-Round SAE Supervision Plan

III. Objectives:

Upon completion of this lesson, participants will be able to:

1. Develop a schedule of SAE supervision visits that provides for at least one visit per student.

2. Develop a plan of supervision activities that documents time spent during a teacher’s supervision class period.

3. Develop in-class SAE supervision activities.

IV. Questions to Consider:

1. When and how often should students receive SAE supervisory visits?

2. How much time should a teacher devote to supervisory visits during the school year?

3. What activities should a teacher perform for a class period devoted to supervision?

4. What in-class activities related to SAEs should be conducted during the school year?

Assignment:
You are a new agricultural science and business teacher at Eastern Wabash High School. This is a two teacher department and the other agriculture teacher has about the same number of students and teaches Animal Science, Agribusiness Management, and another section of Natural Resources Management. All of the classes are year-long courses. The school is grades 9-12, on a seven-period class schedule, and has a split lunch schedule during fourth period. Your class schedule is as follows:

<table>
<thead>
<tr>
<th>Period</th>
<th>Course</th>
<th>Enrollment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Fundamentals (9th Graders)</td>
<td>28</td>
</tr>
<tr>
<td>2</td>
<td>Natural Resources Management (Mostly 11th Graders)</td>
<td>16</td>
</tr>
<tr>
<td>3</td>
<td>Advanced Life Science: Animals (Mostly 12th Graders)</td>
<td>12</td>
</tr>
<tr>
<td>4</td>
<td>Planning</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Plant &amp; Soil Science (Mostly 10th Graders)</td>
<td>24</td>
</tr>
<tr>
<td>6</td>
<td>Fundamentals (9th Graders)</td>
<td>20</td>
</tr>
<tr>
<td>7</td>
<td>Advanced Life Science: Foods</td>
<td></td>
</tr>
</tbody>
</table>

Your mission is to design an SAE visitation program for September through May that accomplishes the following:

1. All Fundamentals students will receive at least one visit. All other students will receive at least one visit per semester. Briefly describe how much of your time visits will take.

2. Your seventh period will be used for SAE activities 90% of the time. What will you do during this time?

3. All students will receive adequate in-class instruction in SAE. What will you teach each class about SAE, how much class time will be devoted to SAE, what will each class do in-class related to SAE?
SAE Lesson Eighteen

ANNOUNCEMENTS: _____________________________________________________

I. Unit: SAEs in Indiana Agricultural Science and Business Programs

II. Lesson: Operating the SAE Program Within State and Federal Laws

III. Objectives:

Upon completion of this lesson, participants will be able to:

1. Locate sources of information regarding child labor laws.

2. List and explain the major child labor laws affecting SAE placement.

3. Place a student in an appropriate SAE situation using accepted legal guidelines.

IV. Questions to Consider:

1. What are the child labor laws in Indiana?

2. How do these laws affect both the student and the teacher in an SAE program?

3. What is cooperative education and how does it compare to SAE?

4. What documentation is required for federal and state compliance?

5. Who is responsible for the SAE program being in compliance with local, state, and national laws?

Assignment: