

Agenda

CALS Curriculum Committee Meeting
Tuesday, October 22nd, 2013, 12:00 p.m.
250 Agricultural Hall

___ Randy Jackson, Chr (2014)

___ Jeri Barak, (2014)

___ Bill Bland, (2014)

___ Kirsten Brown, (2016)

___ Jack Kloppenburg, (2015)

___ Ahna Skop, (2016)

___ Susan Smith, (2016)

___ James Steele (2016)

___ Masarah Van Eyck, (2015)

CALS Ex Officio:

___ Sarah Pfatteicher

___ Phil Gonsiska

CASI Ex Officio:

Student Reps: ___ Matt Olson

___ Taylor Fritsch

UP&S Office:

___ Susan Gisler

___ Andrea Sotile

MINUTES

October 8, 2013

COURSE PROPOSALS

FOOD SCI 437: *Foodservice Operations*

Lead: Jim

Course change, effective Fall 2014-15. Change prereqs: in addition to FS 301, now propose students be admitted to the dietetics program (ADI) in order to take the course. The ADI requirement is an indication of student's commitment to and ability to succeed and it is required for the program.

DAIRY SCI 234: *Dairy Herd Mgmt. II*

Lead: Kirsten

New course, effective Spr. 2014. Replaces Dy Sci 302, covers animal welfare and handling, health, calf and heifer rearing, facilities, production economy. Had been tabled in Spring to wait for course discount proposal for Dy Sci 302.

DAIRY SCI 302: *Dairy Cattle Husbandry Practicum*

Lead: Kirsten

Course deletion, effective Spr. 2014. Deletion of Dy Sci 302. Requested by committee before acting on proposal for Dy Sci 234.

BSE 270: *Intro. to Computer Aided Design*

Lead: Jeri

New course, effective Spr. 2014. New course designed to teach students CAD. Taught online through Learn@UW.

BSE 461: *Bioprocessing Unit Operations*

Lead: Jim

Course change, effective Spr. 2014. Changing title to Food & Bioprocessing Operations, changing course description to include topics that were taught in another course that is no longer offered.

BSE 464: *Heat and Mass Transfer in Biological Systems*

Lead: Bill

New course, effective Spr. 2014. New course covering transport phenomena (heat transfer, fluid dynamics, etc.) with emphasis on biological systems.

BIOCHEMISTRY 508: *General Biochemistry II*

Lead: Bill

Course change, effective Spr. 2014. Changing course description: adding “Biosynthesis of biological molecules, signal transduction mechanisms”. Changing prerequisites to BC or higher in Biochem 503 and Honors credit with consent of instructor.

BIOCHEMISTRY 710: *Exploring Biochemical Function of Macromolecules* **Lead: Masarah**

Course change, effective Spr. 2014. Slight change to course description to bring it into line with practice.

BIOCHEMISTRY 100: *Biochemistry Freshman Seminar*

Lead: Jack

New course, effective Fall 2013. New First Year Seminar, specific to Biochemistry. Has been taught for several semesters by Kelley Harris-Johnson as a section of Biochemistry 375.

AUTOMATIC CONSENT

ZOOLOGY 953: *Introduction to Ecology Research at UW-Madison*

Course change, effective Fall 2014-15. Request to add Atmospheric and Oceanic Sciences to the x-listings. There was a consensus among the leadership, that the cross-cutting Wisconsin Ecology program that it was a substantial and problematic oversight to not x-list the course.

OTHER BUSINESS

Capacity Metrics (if time)

CALS Curriculum Committee Meeting Minutes
Joint with L&S Curriculum Committee
Tuesday, October 8th, 2013

CALS Present: Jackson, Barak, Bland, Brown, Kloppenberg, Smith, Steele, Van Eyck, Pfatteicher, Gonsiska, Gisler, Olson, Fritsch

Absent: Skop

Meeting called to order at 12:10 pm (Joint Curriculum Committees)

CALS Meeting called to order by Bland (chairing for Jackson) at 2:00 pm

MINUTES

September 24th, 2013 Minutes – two corrections

- Susan Smith was absent
- Hort 334 & 334 proposal – add “strictly” before word ornamental plants now. Add “e.g. fruits and vegetables” per Bland. Minutes approved as corrected

BUSINESS

Continuation of capacity project discussion

Bland provided an “Instructional Needs of the UW-Madison Student Population” sample of possibly where to begin discussion.

Discussions/thoughts/comments

- Articulate instructional promise and work toward middle to gain clarity
- Graduate numbers slipping, undergraduates growing
- Budget dollars following enrollment
- What would menu look like – how complicated should it be, what would a data set look like
- Take 3-4 credit courses per tenured faculty for a given period and compare it to other 5-6 courses per dept; compare college as a whole
- Question – how do we know if 4,000 is too few students, too many students, or just right?

Meeting adjourned 2:20 pm

Joint Curriculum Committee Minutes

Meeting called to order at 12:10 pm (Joint Curriculum Committees)

Program Proposals

Proposed Plant Biology Option for the Biology Major.

APC for both schools/colleges officially determines if request will be approved, but asks feedback from Curriculum Committees.

L&S typically did not see requests prior to APC, but CALS does.

Landis questioned impact on related small majors/programs. There is faculty energy to spare; they are willing to embrace increase in major, but could eliminate small majors as well

Lee commented on whether it will engage student interest. For overlapping majors, was it clear they could not major in Botany if they choose the Biology Plant Option? He comment on when the biology proposal went forward the first time, there was polling on the student interest, but not this time.

Pflieger commented on CALS major versus L&S Major and differences with options. Blandis and Jackson indicated there would be staff advisors who serve both colleges, but the major would be administered in the Dept of Bacteriology. If an option is chosen, student would also be given a faculty advisor along with the staff advisor. Redfield cautioned about difficulty with options and students not remembering to declare the option as the major is designed to seamlessly move forward until toward the end and then specific courses are required for the option.

Smith indicated there was a misprint as there is a foundation course is required when 151/152 is taken.

Notice of Intent to Plan Neurobiology Major

Is there any reason to stand in the way of closing the NB Option Biology Major. CALS students would have access regardless if housed in L&S.

CALS APC voted to support letter of intent to move forward with the proposal.

Gammie indicated there are about 300 students in the NB option. Students want this, there would be more availability for labs.

Kloppenburg voiced concern about why it should be a major. Lee indicated before biology major, there had to be 40 credits for a single major and it had to be housed within a liberal arts degree.

Van Eyck commented on discipline, problem-based; focus on critical design, real-world societal context

Pflieger would like feedback to APC about administrative support required beyond the department which is embedded in the colleges

Larget recognizes the extraordinary diversity of major – there could be several students graduated and not one single course is common for their biology major. There is a great depth of expertise that has arisen in the NB community and it would be a good time to break-off the option and create a major.

Encourage biology administration to think about more comprehensively
Charge of the dean to examine the options and the life-time of them

CALS would like to see planning committee keep in mind:

---Ensuring program design and depth aligns well with ?

---Appropriate recognition goes beyond what department does, administration is involved

Biochemistry change

Harris-Johnson requesting 200-level physics courses needed rather than 100-level in order to succeed with upper level requirements for major

100-level is not in spirit of program; has not appropriate level physics

Curriculum change has been in practice to include 103/104, but biochemistry would like to go back to the original intent of allow only 200 level courses; dept wants the ability to request special exception if deemed acceptable

Landis Chemistry 565 prereq states 200 level physics; is it being enforced?

CALS issue is overlapping course content – 103/104 would they also get credit for 200 level physics courses? Larget stated wouldn't get credit.

If the requirement states student must take 207/208 or 201/202; physics department should be okay to teach the courses

Process for changes to shared programs/courses

Changes to CALS majors went to CALS Curriculum Committee, but not always true for L&S.

Chairs of Curriculum Committee to get together to discuss

Liberal Arts and Science (LAS) designations, breath, and level

L&S had T&C requirements

Fall 2007 eliminated "T" LAS criteria

Most courses in L&S were grandfathered

Recognize AAE would probably have more "C" courses if requested the LAS requirements. They are working Life Sci Communications for the LAS requirement. They would welcome more proposals asking to the L&S breadth be reviewed.

Meeting adjourned

Course Change Proposal

Subject Food Science (390)

Status Under Review by School/College

Proposer Monica L Theis

Basic Information

Current course number

437

Current course title

Foodservice Operations

Current published course description

Principles and methods of technical operations in quantity foodservice systems; menu planning, purchasing, production, service and cost control.

Chief academic officer of this unit

Scott A Rankin

Designee of chief academic officer for approval authority

Judy A Smith

Currently crosslisted with

What is the primary divisional affiliation of the course?

Biological Sciences

When will this change go into effect?

Fall 2014-2015

Basic Changes

Will the subject change?

No

Current subject

Food Science (390)

Proposed subject

Will the course number change?

No

Current course number

437

Proposed course number

Is this an honors course?

Is this an individual instruction course such as directed study, independent study, research or thesis (i.e., a course with no group instruction)?

Will the title change?

No

Current title

Foodservice Operations

Proposed title (max. 100 chars.)

Proposed transcript title (max. 30 chars.)

Will the crosslistings change?

No

Current crosslistings

Proposed crosslistings

Will the "repeatability" of the course change?

No

Current repeatability

Proposed repeatability

Catalog Changes

Will the credits change?

No

Current minimum credits

Current maximum credits

Proposed minimum credits

Proposed maximum credits

Will the grading system change?

No

Current grading system

Proposed grading system

Will the published course description change?

No

Current course description

Principles and methods of technical operations in quantity foodservice systems; menu planning, purchasing, production, service and cost control.

Proposed course description

Will the prerequisites change?

Yes

Current prerequisites and other requirements

Food Science 301

Proposed prerequisites and other requirements

We propose that students in the dietetics program be ADI approved as a new prerequisite for this course and have taken Food Science 301.

Designation Changes

Will the Liberal Arts and Sciences (LAS) designation change?

No

What change is needed?

What is the rationale for seeking LAS credit?

Will the level of the course change for L&S attributes?

No

Current level:

Proposed level:

Will the L&S breadth requirement change?

No

Current breadth:

Proposed breadth:

Will the General Education Requirement change?

No

Current GER:

Proposed GER

Additional Information

Explain the relationship and importance of the proposed change to existing or future programs (i.e., degrees, majors and certificates)

Dietetics is an increasingly competitive program. The ADI requirement is an indication of a student's commitment to and ability to succeed in this core, required course for the dietetics program

Are any of these programs outside your academic unit?

No

Indicate the subjects that are most closely aligned with the other academic units. The proposal will be sent to the academic units that support those subjects for review.

Specify which requirement(s) this change affects, if any (e.g. satisfies third-level language, meets the major's capstone requirement, fulfills PhD minor requirement)

Meets a prerequisite requirement

Do any of these requirements affect programs (degrees, majors, certificates) outside your academic unit?

No

Indicate the subjects that are most closely aligned with the other academic unit. The proposal will be sent to the academic units that support those subjects for review.

Address the relationship of this change to other UW-Madison courses, including possible duplication of content

Not related to other courses

Is there a relationship to courses outside your subject?

No

Indicate the outside affected subject(s). The proposal will be sent to the academic units that support those subjects for review.

Will any courses be discontinued as a result of this change?

No

List course number(s) and complete a course discontinuation proposal for each course

Justification Changes

Explain the need for the change

As stated previously, the rigor and competitiveness of the dietetics program calls for a change in prerequisites to ensure that students are committed and ready to handle advanced courses in the program.

Additional comments (optional)

Attach a syllabus

[Syllabus 2012.pdf](#)

Additional attachments (optional)(please read "help" text before uploading an attachment)

UNIVERSITY OF WISCONSIN-MADISON
Department of Food Science

FS 437: FOODSERVICE OPERATIONS 2012
3 Credits

Course Description:

This course introduces students to the functional operations of Food and Nutrition Services. Following an overview of the foodservice industry and foodservice as a system, students study key programs and operations common to all on-site foodservices. These programs and operations include food safety, sanitation, menu planning, purchasing, production, and service.

The primary **goal** of this course is to help students understand Food and Nutrition Services from an operations perspective and prepare them for FS 537 which emphasizes the programs, qualities and skills needed to *manage* food and nutrition operations in high-volume, non-commercial settings. Ultimately it is expected that students will be able to efficiently and effectively manage each function of a foodservice operation and recognize political, economic and social issues that influence decision-making in foodservice operations.

Location: Room 1120 Biochemistry

Class Time: MWF 1:20 to 2:10 p.m.

Instructor Information

Monica Theis, MS, RD

Senior Lecturer

127A Babcock Hall

263-2225 (office)

577-5371 (cell)

mltheis@wisc.edu

Office Hours: MWF 2:30 to 3:30 and by appointment

Prerequisites: Food Science 301 and concurrent registration in FS 438

Key Learning Objectives (see Table 1 for knowledge and skill requirements established by The Academy of Nutrition and Dietetics)

By actively participating in this class, the student will be able to:

1. Identify political, social and economic issues and trends that influence the functions and operations of various types of foodservice operations
2. Define each component of a food and foodservice system and describe how they are interrelated
3. Identify major laws and regulations that influence functions and operations of food and nutrition services
4. Develop, implement and manage a foodservice-specific food safety program
5. Plan a menu for a specific on-site population

6. Define and apply principles of purchasing for food and supplies to meet the needs of a specific organization
7. Formulate a recipe in the context of a specific foodservice operation
8. Develop production schedules to ensure timely production and service of food
9. Define and apply principles of meal assembly, distribution and service to the selection and management of the service function

In addition, students be development and demonstrate competence in technical writing and critical thinking

Course Policies: Campus/student e-mail account. Check email and Learn@UW frequently; daily is strongly recommended.

Class attendance is required.

NOTE: Students are responsible for getting notes and handouts if they miss class. Be aware that some content will be discussed and/or distributed in class that will not be available on Learn@UW.

There will be only one option to make up exams regardless of the reason. The alternate will be the next class day following the exam day. The exam will be offered at 8:00 a.m. in room 125 of Babcock Hall. Example, if you miss an exam on a Monday your only option to take the make-up exam will be the following Wednesday at 8:00 a.m.

There is no alternate exam for the final except under UW-Madison policy.

Required Resources:

1. Payne-Palacio J, Theis M. *Foodservice Management: principles and practices*. 12th edition .Prentice Hall, Columbus, OH. 2012. (on reserve at Steenbock Library). Also required for FS 537.
2. SERVSAFE Essentials or Coursebook (6th edition). The National Educational Foundation of the National Restaurant Association. (purchased from Department of Food Science; details provided first class day)

Course Modules

Module 1	Introduction to Foodservice Organizations
Module 2	The Systems Approach
Module 3	Food Safety
Module 4	Cleaning, Sanitation and Environmental Safety
Module 5	The Menu
Module 6	Purchasing
Module 7	Receiving, Storage and Inventory
Module 8	Production
Module 9	Service

Assignments

Module	Focus	Points	Due Date
The Foodservice Industry	Trends and Issues	25	W 9/12
Food Safety	HACCP	100	F 10/5
The Menu	Menu Planning	100	F 10/26
Purchasing	Specifications, product search, calculations and justification	75	M 11/5
Receiving/Storage/Inventory	Issues unique to Buy Fresh, Buy Local	25	W 11/21
Production	Recipe Formulation	100	W 11/28
Service	Set up and presentation	25	M 12/10

Exam Point Value and Dates

Module(s)	Focus	Points	Day/Date
1 and 2	The Foodservice Industry The Systems Approach	30	M 9/17
3 and 4	Food Safety Cleaning and Sanitation Worker Safety	50	F 10/12
5	The Menu	25	W 10/24
6 and 7	Purchasing Receiving, Storage and Inventory	50	M 11/12
8	Production	25	F 11/30
9	Service	20	W 12/12
Final	Comprehensive and Cumulative	100	December 21, 2012

Point Distribution

Type of Assessment	Points	Percent of Total
Assignments	75	10
Projects	375	50
Modular Exams and Final	300	40
Totals	750	100%

Grading Criteria

A	93%
AB	88-92
B	83-87
BC	78-82
C	73-77
D	68-72
F	<68%

A = Signifies that the student has achieved the knowledge and/or performance objectives as defined by the instructors and work is of SUPERIOR quality. This grade is reserved for outstanding students who are clearly capable of going on to do advanced work in the professional practice of food and nutrition management.

B = Signifies that the student has achieved the knowledge and/or performance objectives as defined by the instructors with excellent, above average standards; some minor objectives not achieved. Student is easily capable of doing the next stage of advanced work in the professional practice of food and nutrition management.

C = Signifies that the student has achieved the knowledge and/or performance objectives as defined by the instructors with minimum acceptability. Objectives are not met or performance is of only average quality. Student is minimally capable of doing advanced work in the professional practice of food and nutrition management.

D = Most objectives are not achieved with even limited acceptability. Work is below average but above failure.

F = Majority of objectives are not met. Work is of unacceptable quality.

Table 1

Competency	Content Domain	Module	Assessment
Negotiation Techniques	Communication	Menu Planning Purchasing	Exams
Lay and Technical Writing	Communication	All	All projects and homework assignments
Information Technologies	Communication	Menu Planning Food safety Purchasing Production	All projects and homework assignments
Microbiology	Physical and Biological Sciences	Food Safety	Exams and HACCP projects
Apply microbiological and chemical considerations to	Physical and Biological Sciences	Food Safety	Exams and HACCP

process controls			
Public Policy development	Social Sciences	The Foodservice Industry	Exams
Economics and Nutrition	Social Sciences	Menu Planning	Exams and project
Interpret research	Social Sciences	Menu Planning	Exams, homework assignment and projects
Social-cultural and ethnic food consumption issues and trends	Food	Menu Planning	Exams and project
Food Safety and Sanitation	Food	Food Safety Cleaning and Sanitation	Exams, homework assignment and project
Food Delivery Systems	Food	The Systems Approach Production Service	Exams, homework assignments and all projects
Food and non-food procurement	Food	Purchasing	Exams and homework assignment
Food production systems	Food	Production	Exams and Project
Environmental issues related to food	Food	The Food Industry Menu Planning Purchasing Food safety	Exams
Promotion of pleasurable eating/dining	Food	Menu Planning Service	Exam and Menu Project
Food and nutrition laws/regulations policies	Food	Menu Planning Purchasing Food Safety	Exams, homework assignments and Projects
Applied sensory evaluation	Food	Menu Planning Production	Exams and projects
Determine recipe/formula proportions and modifications for volume food production	Food	Production	Exams and project
Demonstrate basic food	Food	Production	Exams and

preparation and presentation skills			project
Influence of socioeconomic, cultural and psychological factors on food and nutrition behavior	Nutrition Knowledge	Menu Planning	Exams and project
Translate nutrition needs into food choices and menus for people of diverse cultures and religions	Nutrition Knowledge	Menu Planning	Exams and project
Program planning, monitoring and evaluation	Management	Food Safety	Exams and HACCP project
Facility Management	Management	Cleaning and Sanitation	Exams
Risk Management	Management	Food Safety Menu Planning	Exams
Materials Management	Management	Food Safety Cleaning, Sanitation and Safety Purchasing	Exams and homework assignment
Systems Theory	Management	The Systems approach	Exams, homework assignment and all projects
Diversity issues	Management	Menu Planning	Exams and projects
Determine costs of services/operations	Management	Purchasing	Project

*Module specific learning objectives will be provided at the start of each module

In addition to the objectives stated above, students will also have the opportunity to develop the professional qualities and skills identified as essential for success in professional practice

Table 2
Professional Qualities and Skills

Qualities	Skills
Initiative Adaptability and Responsiveness Reaction/ability to handle stress Motivation Dependability Maturity and responsibility Judgment Grace, dignity and civility Spirit of Cooperation Honesty and Integrity	Ability to apply knowledge in practice Decision Making Conceptual, analytical, and critical thinking Communication (all forms) Listening Organization and Time Management Problem Solving

New Course Proposal

Subject Dairy Science (292)

Status Under Review by School/College

Proposer Theodore J Halbach

Basic Information

Course Title

Dairy Herd Management II

Transcript Title (limit 30 characters)

Dairy Herd Management II

Three-digit course number

234

Is this an honors course?

No

Is this an individual instruction course such as directed study, independent study, research or thesis (i.e., a course with no group instruction)?

No

Will this course be crosslisted?

No

Note the crosslisted subjects

What is the primary divisional affiliation of this course?

Biological Sciences

Is this a topics course?

No

Can students enroll in this course more than once for credit?

No

If yes, please justify

Typically Offered

Spring

Catalog Information

Minimum credits

3

Maximum credits

3

Grading System

A-F

Course Description (will be published in Course Guide)

The second of a two course sequence designed as an overview of practical dairy herd management with components of animal welfare and handling, health, calf and heifer rearing, facilities and production economics. Laboratories emphasize practical applications, investigation of alternatives and decision making. Includes farm visits and a hands-on transition cow project for analysis.

Does the course have prerequisites or other requirements?

Yes

List the prerequisites and other requirements for the course

Dy Sci/An Sci 101 or cons inst, successful completion of Dy Sci 233

Indicate the component(s) that comprise the course. Check all that apply

Laboratory

Lecture

Administrative Information

Chief Academic Officer

Kent A Weigel

Designee of chief academic officer for approval authority

Catherine E Rook; Michel A Wattiaux

If there are additional contacts, please list

Will any courses be discontinued as a result of this proposal?

Yes

List course number(s) and complete a course discontinuation proposal for each course

Dairy Science 302

Beginning Term

Spring 2013-2014

Academic/Program Information

Is this course intended for a new academic program for which UAPC approval has not yet been finalized?

No

Which program?

Explain the relationship and importance of the proposed course to existing programs or future programs. (A program is a certificate, major or degree.)

This course is modeled after the proposed Dairy Science 233 course that fills a void for sophomores in the dairy science curriculum. This course is an elective that expands on the current Dairy Science 302 (also an elective), but keeps important aspects of that course, namely selected animal health and welfare topics, the transition cow project and hands-on labs. Further it expands the overview of the Dairy Science 233 prerequisite. It will further serve as preparation for internships that are required for Dairy Science majors.

Are any of these programs outside your academic unit?

No

Indicate the subjects that are most closely aligned with the other academic units. The proposal will be sent to the academic units that support those subjects for review.

Specify which requirement(s) this course meets, if any (e.g. satisfies third-level language, meets the major's capstone requirement, fulfills PhD minor requirement).

None

Do any of these requirements affect programs (degrees, majors, certificates) outside your academic unit?

No

Indicate the subjects that are most closely aligned with the other academic units. The proposal will be sent to the academic units that support those subjects for review.

Course Content

Describe the course content

The course will provide an overview of practical dairy herd management issues in the area of animal welfare and handling, health, calf and heifer rearing, facilities and production economics. Laboratories will emphasize practical applications, investigation of alternatives and decision making. Includes farm visits and a hands-on transition cow project for analysis.

Address the relationship of this course to other UW-Madison courses, including possible duplication of content

This course fills a need in the dairy science curriculum for introducing additional topics related to applied dairy management systems and issues. There is no content duplication with existing courses.

Is there a relationship to courses outside your subject?

No

Indicate the outside affected subject(s). The proposal will be sent to those subjects for review.

List the instructor name and title (list multiple if applicable)

Theodore J. Halbach, Dairy Management Instructor

If the instructor is not a tenured or tenure-track faculty member at UW-Madison, please explain the instructor's qualifications here. Then, go to the "Justifications" tab and upload the instructor's c.v. in the "Additional Attachments" section.

Halbach is a UW professional academic staff who has 13 years of experience managing a progressive 500-cow dairy operation in Arizona. Since his hire in August of 1998 he has taught dairy management courses to undergraduates and Farm and Industry Short Course students. He currently coordinates the department's other sophomore/junior level dairy management course.

Attach a syllabus. See "help" for an explanation of what must be included in the syllabus.

2014 Dairy Science 234 Syllabus.pdf

Justifications

Explain how this course contributes to strengthening your curriculum

This new course proposal is motivated by the need to update the Dairy Science curriculum taking into account: (a) the instructional resources in the department and CALS, and (b) input from our stakeholders. The changes will provide students with a more thorough learning opportunity, that better reflects the issues and scope that are important to employers in the dairy industry.

Provide an estimate of the expected enrollment

20-25 students

Justify the number of credits, following the federal definition of a credit hour (see help). Include the number of contact hours or, if contact hours are not an accurate measure of credit, provide an explanation of how credits are measured

For the entire duration of the spring semester this course will meet weekly for two 50-minute lectures and one three-hour laboratory for a total of 5 contact hours. Students will also be expected to work outside of class for a minimum of six hours per week.

If this is a variable credit course, provide rationale

No

Additional comments (optional)

None

Additional attachments (optional) (please read "help" before uploading an attachment)

TJH CV 2013.pdf

L&S Designations

Should the course be reviewed for L&S liberal arts and science (LAS) credit?

No

What is the rationale for seeking LAS credit?

Level of the course, for L&S attributes (value required for all L&S courses and courses requesting LAS credit)

Should the course be reviewed for L&S breadth requirements?

No

Indicate which:

General Education Designations

Should the course be reviewed for the general education requirement?

No

Which requirements?

DAIRY SCIENCE 234 COURSE SYLLABUS

DY SCI	234	Dairy Herd Management II	Credits:3	Spring 2014
<p>Course Description: Second of a two course sequence designed as an overview of practical dairy herd management with components of animal welfare and handling, health, nutrient management, facilities and production economics. Laboratories emphasize practical applications, investigation of alternatives and decision making. Includes farm visits and a hands-on transition cow project for analysis.</p> <p>Lecture: 9:55-10:45 on Monday and Wednesday in 204 Animal Sciences</p> <p>Lab: 2:25-5:25 on Monday in 204 Animal Sciences</p> <p>Pre-Requisites: Dy Sci/An Sci 101 or cons inst, successful completion of Dy Sci 233</p>				

Course objectives:

- 1) Learn dairy management terminology.
- 2) Increase exposure to accepted dairy farm management systems.
- 3) Become familiar with benchmarks used in the dairy industry to evaluate farm management practices and their practical application.
- 4) Gain experience in hands-on, cow-side practices related to health and management of dairy cattle.

Course Coordinator: Ted Halbach, Dairy Management Instructor

Rm. 283 Animal Sciences

Office: 608-263-3305

Cell: 608-219-5289

E-mail: tjhalbach@wisc.edu

Office hours:

- Tuesday, Thursday and Friday – 11:00 AM to 12:00 PM
- Wednesday 1:30 to 2:30 PM
- Or by appointment

Class Meeting Outline

Module 1	Animal Welfare	
1/22 Lecture	Animal Welfare	Stanton
1/27 Lecture	Behavior Basics - Socializing + Fear + Sickness	Stanton
1/27 Lab	Field trip, Arlington Dairy - Evaluating Behavior and Welfare	Stanton
1/29 Lecture	Assessing Dairy Cow Welfare	Cook
2/3 Lecture	Dairy Cattle Lameness	Cook
2/3 Lab	Field trip, tbd - Measuring Cow Comfort	Cook
2/5 Lecture	Free Stall Housing	Holmes
2/10 Lecture	Free Stall Housing	Holmes
2/10 Lab	Designing Free Stall Housing	Holmes

Module 2	Dairy Herd Health	
2/12 Lecture	Transition Cow Management	Nordlund
2/17 Lecture	Transition Cow Management	Nordlund
2/17 Lab*	Transition Cow Management	Nordlund
2/19 Lecture	Herd Health Protocols	Maroney
2/24 Lecture	Herd Health Protocols	Maroney
2/24 Lab**	Individual animal physical exams and other health procedures	Maroney
Module 3	Nutrient Management	
2/26 Lecture	Waste handling systems	Larson
3/3 Lecture	Waste storage	Larson
3/3 Lab	Field trip, farm TBD	Larson
3/5 Lecture	Nutrient management planning	Labowski
3/10 Lecture	Nutrient management planning	Labowski
3/10 Lab	Case studies	Labowski
3/12	*Mid-term examination @ 5:30 PM	Halbach
Module 4	Business Management	
3/12 Lecture	Financial History	Sipiorski
3/24 Lecture	8 Rules You Can Not Break	Sipiorski
3/24 Lab	Personal Balance Sheets, Cost of Money, tax planning	Sipiorski
3/26 Lecture	5 C's of Lending, Dairy Dozen Guidelines	Sipiorski
3/31 Lecture	23 Point Narrative of KPI's	Sipiorski
3/31 Lab	Farm Balance Sheet & Cash Flow Case Study	Sipiorski
4/2 Lecture	Basic principles of economic decision making in dairy farming	Cabrera
4/7 Lecture	Nutrition and feeding economic decision-making	Cabrera
4/7 Lab	Using decision making software	Cabrera
4/9 Lecture	Dairy cattle reproductive management and decision-making	Cabrera
4/14 Lecture	Replacement and culling optimal economic decisions	Cabrera
4/14 Lab	Using decision making software	Cabrera
4/16 Lecture	Dairy business structure and transfer	Kirkpatrick
4/21 Lecture	Dairy business structure and transfer	Kirkpatrick
4/21 Lab	Dairy business structure and transfer	Kirkpatrick
4/23 Lecture	Dairy farm human resource management, labor laws	Halbach
4/28 Lecture	Position descriptions and labor benchmarking	Halbach
4/28 Lab	Group exercise - troubleshooting an existing dairy's human resources	Halbach
Module 5	Farmstead Planning	
4/30 Lecture	Farmstead Planning	Kammel
5/5 Lecture	Farmstead Planning	Kammel
5/5 Lab	Group exercise – creating a Farmstead Plan	Kammel
5/7 Lecture	Farmstead Plan Presentations	Kammel

Grading

25% Quizzes (take home individual and group quizzes for each module)
30% Lab assignments including Transition Cow Project
15% Mid-term exam (*scheduled on March 12 from 5:30 - 7:00 p.m.)
15% Final exam (noncumulative, date to be announced)
15% Attendance and class participation.

Participation scale:

- ✓ Attends class. Consistent, positive and thoughtful contributions to class and lab discussions and observed positive contribution in group settings. 100 points
- ✓ Attends class. Occasionally contributes (sometimes thoughtful) to class and lab discussions and in group settings. 80 points
- ✓ Attends class but little or no effort at being involved in group or class discussions. 60 points.
- ✓ Attends class, little or no effort at being involved in group or class discussions, is non-attentive (sleeps, emails or other internet activity during class period) 30 points.
- ✓ Chronically misses class and no participation in class discussions. 0 points
- ✓ You will be allowed to miss one lab and two lecture periods during the semester; grade drops one letter grade each miss after that.
- ✓ Peer evaluations will be performed for group projects. Students award a numeric score to each member of their team (not including themselves) and those scores must add up to 100. Students must also provide a qualitative explanation of those scores, and those comments are passed on (anonymously) to their peers.

Grade Scale

Each module will be worth approximately 20% of the final grade.

Final Grade = Percentage

A = 93% - 100%

AB = 89% - 92%

B = 83% - 88%

BC = 79% - 82%

C = 70% - 78%

D = 60% - 69%

F = <60%

Grades will be posted regularly on Learn@UW.

Transition Cow Project

*Part of the Dairy Health module. Students will be placed in groups and assigned a cow on 2/17 to manage through her transition period.

**Transition Cow Project starts on 2/24.

Transition Cow Project defined: Student groups will be assigned a cow that will be approximately two to three weeks from calving. This cow will be "yours" to monitor during the remaining part of the semester. Some of the data will be collected by barn personnel (feed intake), some of the data will be available through electronic records (milk production) and some of the data will be collected by you (health). This project includes the submission of a partial and final report summarizing, analyzing and graphing cow performance data (changes in body weight, body condition score, dry matter intake, milk production, etc.) using an excel spreadsheet.

CURRICULUM VITAE

Theodore J. Halbach

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Formal Education

- M.S.** University of Arizona (1985). Animal Science.
Thesis: Season and Lactation Number Effects on Production and Reproduction of Dairy Cattle in Arizona.
- B.S.** University of Arizona (1980). Agricultural Communications.

Professional Experience

January, 2013 – Present

UW-Madison Department of Dairy Science Dairy Management Instructor
Appointment: 100% Instruction.

Instructional duties included teaching courses for undergraduates in Dairy Science (DYSCI 205: Dairy Cattle Selection & DYSCI 433: Dairy Herd Management) and post-secondary students in the Farm and Industry Short Course (SC_DYSCI 20: Dairy Cattle Evaluation). Serves as an academic advisor for undergraduates. Coordinates the department's undergraduate recruiting efforts.

November 2008 – December 2012

UW-Madison Farm and Industry Short Course Director/Department of Dairy Science Dairy Cattle Evaluation Instructor

Appointment: 80% College Administration, 20% Instruction.

Provided management and leadership for the College of Agricultural and Life Sciences Farm and Industry Short Course (FISC), a 16-week educational program designed to prepare men and women for careers in production agriculture. Students can choose from over 55 courses in the areas of soils, crops, poultry, dairy, meat animals and general livestock, agricultural engineering, ag economics, human relations and communications. Classes begin in early November and end in late March. The program's enrollment grew to 135 during his tenure. Halbach oversaw an upgrade of the program facilities, launched a new tutoring program and worked with a task force appointed to review the program and make recommendations related to the program's administrative structure, business model and curriculum. FISC introduced several new courses as a result of that study.

Instructional duties included teaching dairy cattle evaluation courses for undergraduates in Dairy Science and post secondary students in the Farm and Industry Short Course.

August, 1998 – July 2009

UW-Madison Extension Youth Specialist/Department of Dairy Science Dairy Cattle Evaluation Instructor

University of Wisconsin-Madison, University of Wisconsin – Extension.

Appointment: 65% Extension, 35% Instruction.

Organized, promoted, and presented programs throughout the state of Wisconsin that focused on youth participation in order to facilitate personal growth and continued dairy industry involvement. Collaborated with county 4-H agents, county dairy and livestock agents, volunteers in 4-H and FFA, breed organizations, high school guidance counselors, rural and urban youth, and Wisconsin dairy industry organizations. Developed an interactive dairy youth website (<http://www.uwex.edu/ces/dairyouth/>). Created and directed the annual Badger Dairy Camp, a dairy youth activity camp where over 116 youth develop dairy fitting, showing, and judging skills in addition to participating in hands-on dairy science workshops led by UW-Madison faculty and graduate students. Conducted statewide workshops on showmanship and dairy cattle evaluation topics. Produced a youth-oriented video on dairy show ethics titled “The Rules are Black and White – And They Apply To All Breeds” as well as an interactive CD-ROM entitled “Dairy Cattle Judging Made Easy” that has been distributed nationwide with a second edition released in 2011.

Instructional duties included teaching dairy cattle evaluation courses for undergraduates in Dairy Science and post secondary students in the Farm and Industry Short Course. Coached the UW-Madison dairy cattle judging team. Coordinated the Department of Dairy Science’s undergraduate recruiting efforts.

September, 1996 – December, 2011

President and Operations Manager

Marana Dairy Farm, Ltd. Marana, Arizona.

Managed a herd of 1,200 registered Holsteins and Brown Swiss. Developed and implemented herd’s AI and embryo transfer programs. Managed herd’s general and reproductive health, milk quality protocols, and marketing campaign. Installed a computerized dairy records program and prepared financial budgets. Increased milk production by 8% while reducing staff by 25%. Doubled share value of corporation’s stock. Managed the second highest grossing sale in purebred dairy cattle history when the herd dispersed on October 22, 1997. The corporation now leases 80 acres of irrigated farm ground.

June, 1990 - June, 1998

Member, Board of Directors

Holstein Association, USA

Actively participated in decisions leading to \$13 million in capital improvements that added new facilities and converted the company’s computer system from a mainframe to a client server-based environment. Collaborated on the hiring of a CEO. Contributed to several aspects of an organizational downsizing that reengineered customer focus and internal processes. Served on the Field Operations Committee, acting as Chair from

1996-1997. Worked in a close advisory role with the Association's Junior Activities Committee and staff to implement the organization's annual junior convention attended by more than 400 youth and to monitor youth programming efforts that benefit approximately 10,000 junior members. As Chair, started the Judi Collinsworth Outstanding Junior Exhibitor Award to recognize knowledge, participation and excellence of a junior exhibitor at national shows. Promoted development of a national dairy cattle identification system that resulted in a \$500,000 federal grant. Initiated action that increased Set Classification revenues by 40% and profits by \$520,000. Served on the Type Advisory Committee, determining corrective actions for the type appraisal program that resulted in revised conformation standards and a systematic method of calculating those results. Served on Executive Committee and Governance Committee, developing changes to the Association's bylaws and governance structure.

May, 1988 – Present

Dairy Cattle Judge

Judged 16 state and regional dairy breed shows. Judged dairy shows in Brazil, Puerto Rico, and Japan. Selected to the Holstein and Brown Swiss All-American judges panel numerous times. Conducted judges conference workshops in Japan and Ecuador.

Teaching

Classroom Teaching

Dairy Cattle Selection (Dairy Science 205) – A three-credit course for undergraduates that provides hands-on opportunities to learn about dairy cattle evaluation systems and genetic improvement programs. The curriculum also includes discussion of the major dairy breeds, development of herd breeding programs, factors that impact the value of cattle, and an in-depth look at industry organizations that play major roles in the US dairy cattle genetics industry.

Dairy Genetics and Evaluation (Farm and Industry Short Course) – A three-credit course that students are provided with a hands-on opportunity to learn about dairy cattle evaluation systems, including physical type appraisal, and genetic improvement programs. The curriculum also includes discussion of the major dairy breeds, development of herd breeding programs, factors that impact the value of cattle, and an in-depth look at industry organizations that play major roles in the US dairy cattle genetics industry.

Dairy Herd Management (Dairy Science 433) - A three-credit course that emphasizes students learning important terminology related to the dairy management disciplines, key economic and management benchmarks/indicators, introduction to and analysis of standard operating procedures and some exposure to making "what if" management decisions. (Course coordinator Spring 2007, 2008)

Dairy Cattle Judging Team Coach (Dairy Science 299, Dairy Science 699) – Instructs and coaches approximately 20-25 team members each year as they compete at regional and national intercollegiate dairy judging competitions.

UW-Madison team finishes at the National Intercollegiate Contest:

1998 – Second

1999 – Fifth

2000 – Third
2001 – Second
2002 – First
2003 – Second
2004 – Third
2005 – First
2006 – Third
2007 – Fourth
2008 – Third
2009- Eighth
2010 - First

Winning UW-Madison teams at other national and regional competitions:

1998 – Southern Intercollegiate Dairy Cattle Judging Contest
2000 – Accelerated Genetics Intercollegiate Dairy Cattle Judging Contest
2000 – Southern Intercollegiate Dairy Cattle Judging Contest
2000 – North American International Livestock Exposition Collegiate Dairy Cattle Judging Contest
2001 – Accelerated Genetics Intercollegiate Dairy Cattle Judging Contest
2001 – Southern Intercollegiate Dairy Cattle Judging Contest
2002 – All-American Intercollegiate Dairy Cattle Judging Contest
2002 – Southern Intercollegiate Dairy Cattle Judging Contest
2003 – Southern Intercollegiate Dairy Cattle Judging Contest
2003 – Southwest Intercollegiate Dairy Cattle Judging Contest
2004 – North American International Livestock Exposition Collegiate Dairy Cattle Judging Contest
2005 – All-American Intercollegiate Dairy Cattle Judging Contest
2005 – Southern Intercollegiate Dairy Cattle Judging Contest
2006 – Southern Intercollegiate Dairy Cattle Judging Contest
2007 – Southwest Intercollegiate Dairy Cattle Judging Contest
2008 – Southwest Intercollegiate Dairy Cattle Judging Contest
2011 - Southwest Intercollegiate Dairy Cattle Judging Contest

Mentor Teaching

Served as internship field supervisor/advisor for the following undergraduates:

Kayla Buske – UW Dairy Science Marketing Intern (Academic Year, 2008-09)
Evan Schnadt – Intern at Lookout Holsteins and Jerseys, North Hatley, Québec, Canada (Winter, 2008)
Ashley Sprengeler – Dairy Youth Programs Intern (Summer, 2008)
Linda Behling – UW Dairy Science Marketing Intern (Academic Year, 2007-08)
Daniel Walker - Dairy Youth Programs Intern (Summer, 2007)
Mitch Amundson – ABS Progeny Promotions Intern (Summer, 2007)
Eliza Ulness – UW Dairy Science Marketing Intern (Academic Year, 2007)
Chrissy Wendorf – Dairy Youth Programs Intern (Summer, 2006)
Molly Florent – Dairy Science Dept. Marketing Intern (Spring, 2006)
Jerome Meyer – ABS Progeny Promotions Intern (Summer, 2005)
Tony Brey – Great Northern Land & Cattle Co. Intern (Summer, 2005)
Lindsey Worden – Dairy Youth Programs Assistant (Summer, 2005)
Molly Florent – Select Sires Progeny Promotions (Summer, 2005)

Crystal McNett – Select Sires Marketing Intern (Summer, 2005)
Dan Bauer – US Jersey Association Marketing Intern (Summer, 2005)
Nicole Hosto – Dairy Youth Programs Assistant (Summer, 2004)
Abby Huibregtse – Wisconsin State Fair/House of Moo Intern (Summer, 2004)
Peter Rindal – Dairy Youth Programs Assistant (Summer, 2003)
Kari Behling – Dodge County UW Extension Programs Assistant (Summer, 2003)
Laurie Winkelman – Worked on Dairy Judging Made Easy CD-ROM (Summer, 2003)
Kristan Noeldner – Dairy Youth Programs Assistant (Summer, 2002)
Becky Mentink – Dairy Youth Programs Assistant (Summer, 2001)
Laurie Winkelman – Created dairy show ethics workbook and video (Summer, 2001)
Sally Flis – Worked at Miner Research Institute in New York (Summer, 2001)
Sally Flis – Dairy Youth Programs Assistant (Summer, 2000)
Amy Shanks – Brown Swiss Association Programs Assistant (Summer, 2000)
Jill Makovec – Dairy Youth Programs Assistant (Summer, 1999)

Set up internship opportunities for the following undergraduates:

Molly Florent – Ocean View Farms intern in Windsor, California (December, 2005)
Peter Rindal – Four Winds Farms intern in Hartland, Wisconsin (Summer, 2004)
Kristan Noeldner – Ocean View Farms intern in Windsor, California (December, 2002)
Becky Mentink – Work study program with Niles Jennett, DVM (December, 2001)
Kristan Barlass – Ruann Dairy intern in Riverdale, California (Summer, 2001)

Other undergraduate interaction:

Writes numerous letters of recommendations for scholarships, recognition awards, and employment references.

Honors & Awards

Honorary State FFA Degree – Given by the Wisconsin Association of FFA (June, 2006)

McDonald Award for Teaching Excellence in Short Course – Given by the College of Agricultural and Life Sciences at the University of Wisconsin – Madison. (April, 2005).

Video Program Award – Given by the Wisconsin Association of Extension 4-H Youth Development Professionals for the video “The Rules Are Black and White – And They Apply To All Breeds”. (September, 2003).

National Communicator Award – Given by the National Association of Extension 4-H Agents. (September, 2003).

Key Extension Programs

Badger Dairy Camp – Badger Dairy Camp is a three-day dairy-activities camp for young people between 12 and 18 to learn about dairy fitting, showmanship, and judging while they develop life skills in self-confidence, teamwork and sportsmanship. The schedule includes showmanship and judging contests, a fitting clinic, radioactive bowling and other recreational sports, workshops on dairy topics, and campus tours. Participants are also exposed to educational opportunities and potential careers within the dairy industry. The Camp was initiated in 1999 and in nine years nearly one-thousand youth have attended. Annually, between 110 and 120 youth from up to five states, as well as 35 industry volunteers and representatives participate in the program. Youth pay only their food and dorm expense with sponsors covering additional costs that include shirts, campus activities, staff rooming cost, awards and educational materials.

Area Animal Science Days – Area Animal Science Days (AASD) consist of four regional judging and showmanship contests where county 4-H judging teams compete for qualification to the state judging contest. Enrollment in each of these four contests has remained at approximately 75-125 participants per contest, along with 20 industry volunteers, despite rapidly declining farm numbers in Wisconsin. Through participation in these contests, youth learn decision-making, problem solving, communication and leadership skills.

Wisconsin 4-H Senior Dairy Cattle Judging Contest – The State 4-H Judging Contest brings together the top teams from each of the Area Animal Science Days competitions to compete for the Wisconsin championship. Approximately 65 youth are selected to compete based on their placing at the regional AASD contests. Top placing teams and individuals also vie to represent the state at the All-American 4-H Youth Dairy Cattle Judging Contest held in Harrisburg, Pennsylvania, the North American International Livestock Exposition Youth Dairy Cattle Judging Contest held in Louisville, KY and the National 4-H Dairy Cattle Judging Contest, held in Madison, WI. At the National Contest with county teams representing the state, Wisconsin 4-H has claimed the national championship title 6 of the last 7 years. The 2000 contest win marked Wisconsin's first title at the National Contest since 1983.

Wisconsin 4-H team finishes at the National Contest:

1998 – Second (Wood County)
1999 – Fourth (Columbia County)
2000 – First (Jefferson County)
2001 – First (Dane County)
2002 – First (Door County)
2003 – Eighth (Walworth County)
2004 – First (Dodge County)
2005 – First (Columbia County)
2006 – Sixth (Polk County)
2007 – Eighth (Pierce County)
2008 – Seventh (St. Croix County)

Winning Wisconsin 4-H teams at other national competitions:

2000 – North American International Livestock Exposition Youth Dairy Cattle Judging Contest
2003 – All-American Youth Dairy Cattle Judging Contest
2004 - North American International Livestock Exposition Collegiate Dairy Cattle Judging Contest
2005 - North American International Livestock Exposition Collegiate Dairy Cattle Judging Contest
2006 - North American International Livestock Exposition Collegiate Dairy Cattle Judging Contest

Wisconsin 4-H Dairy Bowl – Wisconsin 4-H Dairy Bowl is a quiz bowl contest held yearly in which county teams compete for the Wisconsin championship as well as to qualify for the National Dairy Bowl Competition in Louisville, Kentucky (NAILE) and World Dairy Expo Quiz Bowl Contest (WDE). In 2008 the Wisconsin representative finished third at the National Contest. The Wisconsin 4-H contest involves approximately 45 teams and 225 youth who compete in three divisions. Since 1998 the contest has more than doubled in participation.

Through dairy bowl youth learn about team participation, cooperation, leadership, communication, and decision-making skills.

Wisconsin Junior State Fair – Wisconsin Junior State Fair is one of the largest youth dairy shows in the world, with over 700 youth participants and nearly 1,000 head of registered dairy cattle of all breeds exhibited. Junior State Fair also involves a herdsmanship competition which requires approximately 25 industry volunteers as well as a production competition that requires securing industry sponsorship. Additionally, revised quota and fitting rules have been put in place since 1999 that have increased the number of youth exhibitors and their project roles. In 2007, the Governor's Dairyland Youth Celebration was initiated. The program's objective is to recognize Wisconsin dairy youth achievement. Youth receiving dairy project scholarships and dairy leadership/project awards are recognized. In addition, the program includes live and silent auctions for youth owning breed champions and exhibitors who are age-group showmanship winners at the fair. This auction generates funds for these youth as well as several dairy youth scholarship programs.

Wisconsin State FFA Career Development Event – The State FFA Career Development Event is held on the UW-Madison campus each year and involves a dairy judging and showmanship competition involving approximately 240 youth participants and 20 volunteers.

Dairy Youth Website – A dairy youth website (<http://www.uwex.edu/ces/dairyyouth/>) was developed to make extension dairy youth programs, informational forms, and news more accessible to dairy youth participants across the state. A calendar of events, news section, program descriptions and information, pertinent forms, and links to industry scholarships, references, and associations are all features of the website. It is updated on a monthly basis.

James W. Crowley Dairy Leadership Awards – The state's 4-H Dairy Leadership Award program was revised, providing recognition for approximately 45 youth who have excelled in their dairy project. Outstanding 4-H dairy project members in each county are recognized for their accomplishments. County Award winners then compete for 15 state-wide awards. State winners receive plaques plus partial scholarships to the National 4-H Dairy Conference. In addition, the top two youth in the state competition each receive \$500 awards for continuing their dairy education. Participation in the award program is up 400 percent since 1998.

PDCA National Show Judges Type Conference – Two day-long seminars in 2005 at the Ohio Spring Dairy Expo, Columbus, OH and the All-American Dairy Show in Harrisburg, PA were developed and coordinated that focused on preparing judges to officiate at premier dairy shows in the United States and to make evaluation of conformation by breed type programs and the show-ring more consistent. PDCA members featured heifer and cow classes from each of the dairy cattle breeds that illustrate the ideal type goals of each breed organization. Discussions include giving reasons, show-ring procedures and judging youth showmanship. In April, 2006, the conference took place in Madison, WI and featured type evaluators from each of the participating organizations presenting a classification demonstration and instructions on breed priorities for show ring judges.

Brown Swiss Youth Olympics – A first-time educational program for over 100 youth attendees was developed and implemented for the 2005 National Brown Swiss Convention held in Beloit, WI. The Brown Swiss Youth Olympics targets junior breed members between the ages of 9-19.

Youth could compete as individuals or as members of four-person teams. The contest involved five categories testing the participants' knowledge and skill in several different areas related to Brown Swiss cattle and the dairy industry. The Dairy Jeopardy competition format is similar to the television game show, except with Brown Swiss and dairy related questions. The Showmanship Contest allows participants to show-off their showmanship skills. The Genetics Skill Station gives contestants a chance to test their ability to mate cattle based on linear evaluations, as well as rank individual animals for their genetic potential. For the Feeds and Nutrition Skill Station, participants were asked to identify 20 different varieties of livestock feed. The final component is a Brown Swiss Judging and Linear Evaluation competition, where the youth judge four classes of heifers and linear evaluate two cows. Points are earned in each event with awards given to the top individuals and teams in each category. Also, an overall high individual and team are named. The program was developed as a template for use at future Brown Swiss national conventions and was used at the Association's 2006 and 2008 meetings.

Resource/Educational Materials Developed

“Dairy Management Project Agreement” – Informational project form. 2002 - 2006.

Developed to facilitate non-farm youths' participation and education in the dairy project by documenting “managerial” animals leased from producers.

“Dairy Cattle Judging Made Easy” – Interactive CD-ROM. 2004. Developed in conjunction with Babcock Institute as a resource for judging teams. Outlines basics of dairy cattle evaluation and presenting oral reasons. A Spanish language version also developed.

“The Rules Are Black and White – And They Apply To All Breeds” – Informational Video. 2003. Developed with Dr. Jeff Goodwin and Laurie Winkelman as a resource for youth dairy project members. Outlines the basics for dairy show ethics, describing acceptable and unacceptable dairy husbandry and show ring practices.

“Lifetime Dairy Record” – Informational project form. 2004. Developed to facilitate dairy youths' ability to document the development of their project animals. Includes section for physical description, health, reproduction, and production information of the animal.

“Dairy Heifer Management Record” - Informational project form. 2004. Developed to facilitate dairy youths' education by documenting genetic, growth, management, and economic considerations of their heifer projects.

“Calf in the Classroom” - Developed eleven lesson plans for a Wisconsin 4-H pilot project that introduced third and fourth grade youth at four urban Wisconsin public schools to dairy farming. Lessons included: Average Rates of Growth for Calves and Heifers; Introduction to Calf Records; Cost of Production of One Heifer to Maturity; Introduction to Production Records; Introduction to Hereditary Traits; Cow Talk; Purebred Versus Grade Cattle; What is Artificial Insemination; The Cost of Production of One Gallon of Milk; Introduction to Pedigrees; Mating Systems.

Articles Published

“Breeders Invest in Future By Hosting Judging Team Practices”. Hoard's Dairyman. September 10, 2001. Served as primary reference.

“Cover Your Biosecurity Bases This Show Season”. Hoard's Dairyman. May 10, 2002. Served as primary reference.

“The Rules Are Black and White – And They Apply To All Breeds”. Hoard's Dairyman

insert. June 10, 2003. Served as co-author.

Industry Involvement

4-H Dairy Endowment Committee (1999-present)
Holstein Association USA's Type Advisory Committee (2008-present)
Brown Swiss Type Advisory Committee (2005-present)
Brown Swiss Young Breeders Recognition Award Selections Committee (2002-2004)
College of Agricultural and Life Sciences Student Scholarship Committee (1999-present)
Dairy Science Golf Classic Planning Committee (2005-present)
Dairy Science Instruction and Committee (1999-present)
Dairy Science Recruitment and Promotions Committee, Chair (2004-present)
Farm & Industry Short Course Scholarship Committee (2003-present)
Holstein Foundation Fund Drive Committee (2004-2005)
Holstein Association Show Ring Ethics Committee (2003-2004)
Midwest Dairy Herd Health Conference Organizing Committee (2002-2006)
National Dairy Shrine Progressive Dairy Producer Award Committee (2002-2003)
National 4-H Dairy Conference Planning Committee (1999-present)
PDCA Breed Collaboration/Registry Harmonization Committee (2000-2001)
PDCA Show Ethics Committee (2004)
PDPW Career and Leadership Development Committee (1999-present)
WALSAA Outstanding Sophomore Award Selection Committee (1999-present)
Wisconsin Association of Fairs Premium List/Judges Committee (2004-present)
Wisconsin Junior State Fair Dairy Auction Committee (2005-present)
Wisconsin Junior State Fair Dairy Show Ad Hoc Committee (2007-present)
Wisconsin Junior State Fair Dairy Promotion Committee (2004-present)
Wisconsin Junior State Fair Dairy Quota Committee (2007-present)
Wisconsin Junior State Fair Livestock Committee (1999-present)
Wisconsin PDCA Board of Directors (1999-present)
World Dairy Expo Junior Showmanship Planning Committee (1999-2004)

Invited Extension Presentations/Workshops

Halbach, T.J. 2008. Provided seminar and served as contest judge for National 4-H Dairy Conference. September 28-October 1. Madison, WI.
Halbach, T.J. 2008. Coordinated World Dairy Expo Judging Practice Tour. September 27-38. Southern WI.
Halbach, T.J. 2008. Served as judge for junior and open dairy shows at Grant County Fair. August 15. Lancaster, WI.
Halbach, T.J. 2008. Provided a workshop for Brown County UWEX that taught showmanship, fitting, show ethics, and animal welfare concepts. July 23. De Pere, WI.
Halbach, T.J. 2008. Conducted a "Roaming through the Rumen" workshop for UW-Madison's Grandparents University. July 21. Madison, WI.
Halbach, T.J. 2008. PDCA representative to the Holstein Canada National Show Judges Conference. July 14-16. Lindsey, Ontario, Canada
Halbach, T.J. 2008. Moderated the dairy bowl and officiated the judging contest at the National Guernsey Convention. June 27-28. Middleton, WI.
Halbach, T.J. 2008. Judged a speaking contest and moderated the dairy bowl at the Holstein USA National Junior Convention. June 23-26. Madison, WI.

Halbach, T.J. 2008. Provided a tour of UW-Madison for Holstein Association USA Convention visitors. June 22. Madison, WI.

Halbach, T.J. 2008. Presented workshop on Body Condition Scoring in dairy cattle at the Wisconsin 4-H Youth Conference. June 18. Madison, WI.

Halbach, T.J. 2008. Presented an overview of 4-H dairy youth programs for newly hired ANRE agents. June 10. Madison, WI.

Halbach, T.J. 2008. Presented workshop on dairy cattle judging for International Farmer's Aid. June 9. Madison, WI.

Halbach, T.J. 2008. Coordinated the WI PDCA Show Judges Conference May 31. Westfield, WI.

Halbach, T.J. 2008. Provided a workshop for Lincoln County UWEX that taught showmanship, fitting, show ethics, and animal welfare concepts. May 24. Merrill, WI.

Halbach, T.J. 2008. Spoke at Wisconsin Idea Seminar at Adams Dairy. May 19. Eleva, WI.

Halbach, T.J. 2008. Provided a workshop on "Successful Dairy Judging Strategies" to Vernon County 4-H youth. May 15. Viroqua, WI.

Halbach, T.J. 2008. Provided resources and served as dairy judge at Belleville FFA Dairy Career Development Event. April 11. Belleville, WI.

Halbach, T.J. 2008. Facilitator for the Brown Swiss Type Conference. March 3-4. Millersburg, OH.

Halbach, T.J. 2008. Presented workshop entitled "Type Appraisal Methods and Formulation of Oral Reasons" to FFA Instructors. February 9. Roswell, NM.

Halbach, T.J. 2007. Presented overview of 4-H dairy programs to newly hired 4-H agents. November 6. Madison, WI.

Halbach, T.J. 2007. Provided seminar and served as contest judge for National 4-H Dairy Conference. September 30-October 3. Madison, WI.

Halbach, T.J. 2007. Coordinated World Dairy Expo Judging Practice Tour. September 29-30. Southern WI.

Weigel, K. A., **T. J. Halbach**, C. Maltecca, and P. C. Hoffman. 2007. Performance and physical conformation of first parity backcross Holstein x Jersey cattle and their Holstein contemporaries. ADSA/PSA/AMPA/ASAS Annual Meeting, San Antonio, TX, July 8-12.

Halbach, T.J. 2007. Presented program called "Roaming the Rumen" to minority students attending UW's College Access Program. July 16. Madison, WI.

Halbach, T.J. 2007. Served as judge for junior dairy show at Clark County Fair. August 11. Neillsville, WI.

Halbach, T.J. 2007. Served as official for youth and open dairy cattle shows, Racine County Fair. July 25. Union Grove, WI.

Halbach, T.J. 2007. Served as ring announcer for the WI Brown Swiss State Show. June 30. Monroe, WI.

Halbach, T.J. 2007. Served as judge for the State FFA Prepared Speaking Contest. June 12. Madison, WI.

Halbach, T.J. 2007. Provided workshop on dairy cattle judging for International Farmer's Aid. June 4. Madison, WI.

Halbach, T.J. 2007. Spoke at Wisconsin Idea Seminar at Vir-Clar Farm. May 21. Fond du Lac, WI.

Halbach, T.J. 2007. Gave presentation at Minnesota PDCA Show Judges Workshop and Seminar. May 5. Atwater, MN.

Halbach, T.J. 2007. Provided resources and served as dairy judge for Belleville FFA Dairy Career Development Event. April 12. Belleville, WI.

Halbach, T.J. 2007. Provided dairy bowl questions for Wisconsin Guernsey Association. March 30. Menominee, WI.

Halbach, T.J. 2007. Gave presentation to the Holstein Association USA's board of directors titled "Don't Forget the Scorecard's Influence in Making Your Breed of the Future." March 23. Brattleboro, VT.

Halbach, T.J. 2007. Gave presentation at Brown Swiss Association's national classifier conference. February 28. Beloit, WI.

Halbach, T.J. 2007. Created and presented dairy-themed "What's My Line" for Outagamie County 4-H Careers program. February 12. Appleton, WI.

Halbach, T.J. 2007. Presented an overview of 4-H dairy youth programs for newly hired 4-H agents. January 30. Madison, WI.

Halbach, T.J. 2007. Served as dairy bowl moderator and judge at Wisconsin Holstein Association Junior Convention.

Halbach, T. J. 2006. Gave power point presentation on the Wisconsin 4-H Dairy Youth Program at the National Association of Extension 4-H Agents Annual Conference. October 24. Milwaukee, WI.

Halbach, T. J. 2006. Provided seminar and served as judging contest official for National 4-H Dairy Conference. October 1-4. Madison, WI.

Halbach, T. J. 2006. Provided seminar on evaluating and judging dairy cows at the Babcock Institute's World Dairy Expo Short Course event. October 3. Madison, WI.

Halbach, T. J. 2006. Coordinated World Dairy Expo Judging Practice Tour. September 30-October 1. Southern Wisconsin.

Halbach, T. J. 2006. Judged Grant County Fair junior dairy show. August 26. Lancaster, WI.

Halbach, T. J. 2006. Judged youth showmanship and supreme champion competitions at the Rock County Fair. July 30. Janesville, WI.

Halbach, T. J. 2006. Judged youth and open dairy cattle shows at the Racine County Fair. July 26. Union Grove, WI.

Halbach, T. J. 2006. Gave power point presentation titled "The New Scorecard for Brown Swiss Classification" at the Brown Swiss Association's Convention. July 13. Dubuque, IA.

Halbach, T. J. 2006. Assisted with WI Holstein Association's judging contest at their Championship Show. July 10. West Bend, WI.

Halbach, T. J. 2006. Provided workshop to Ag instructors on preparing for the judging contests at the WAAE Annual Conference. June 26. Middleton, WI.

Halbach, T. J. 2006. Spoke on US dairy cattle evaluation methods at International Farmers Aid Association event. June 5. Madison, WI.

Halbach, T. J. 2006. Presented an overview of 4-H dairy youth programs to newly hired 4-H agents. May 19. Madison, WI.

Halbach, T. J. 2006. Spoke at the Wisconsin Idea Seminar. May 15. Humbird, WI.

Halbach, T. J. 2006. Organized and coordinated a workshop for national show judges at the National PDCA Conference. April 8. Madison, WI.

Halbach, T. J. 2006. Provided resources and served as dairy judge at Belleville FFA Dairy Career Development Event. April 7. Belleville, WI.

Halbach, T. J. 2006. Served as official judge of the Animal Sciences and Welfare Intercollegiate Team Evaluation Contest. March 26. Madison, WI.

Halbach, T. J. 2006. Facilitated Brown Swiss Association's Type Committee to revise their classification scorecard. February 27. Beloit, WI.

Halbach, T. J. 2006. Served as moderator at the Midwest Student ADSA annual meeting. February 25. Madison, WI.

Halbach, T. J. 2006. Prepared presentation on linear evaluation to be presented at Fond du Lac 4-H Learning Day. January 22. Fond du Lac, WI.

Halbach, T. J. 2005. Provided seminar on Developing a Comprehensive Dairy Herd Mating Strategy for National 4-H Dairy Conference. October 4-5. Madison, WI.

Halbach, T. J. 2005. Provided seminar on evaluation and judging dairy cows for Babcock Institute World Dairy Expo Short Course. October 4. Madison, WI.

Halbach, T. J. 2005. Coordinated World Dairy Expo practice tour. October 1-2. Southern Wisconsin.

Halbach, T. J. 2005. Provided type evaluation lectures and field evaluation training for young Japanese dairymen. August 8-13. Sapporo, Japan.

Halbach, T. J. 2005. Coordinated and led fitting and showmanship workshops for Marinette County 4-H Dairy Project members. July 18. Madison, WI.

Halbach, T. J. 2005. Coordinated and led fitting and showmanship workshops for Kewaunee County 4-H Dairy Project members. July 15. Luxemburg, WI.

Halbach, T. J. 2005. Developed and coordinated the first-ever Brown Swiss Youth Olympics at the National Brown Swiss Convention. June 30 and July 1. Beloit, WI.

Halbach, T. J. 2005. Spoke on US dairy cattle evaluation methods to ITESM-CQ Study Tour. June 21. Madison, WI.

Halbach, T. J. 2005. Spoke on US dairy cattle evaluation methods at the International Farmers Aid Association. June 6. Madison, WI.

Halbach, T. J. 2005. Presented an overview of 4-H dairy youth programs for newly hired 4-H agents. May 20. Madison, WI.

Halbach, T. J. 2005. Coordinated dairy workshop for Lake Mills FFA. Madison, WI. May 3.

Halbach, T. J. 2005. Coordinated workshops for PDCA national show judges. March 31. Columbus, OH.

Halbach, T. J. 2005. Coordinated Wisconsin PDCA's judging clinic. April 30. Oconomowoc, WI.

Halbach, T. J. 2005. Coordinated WI State Guernsey Convention Quiz Bowl contest. April 2. Spring Green, WI.

Halbach, T. J. 2005. Spoke on Brown Swiss classification programs and breed type trends. March 1. Pittsburg, PA.

Halbach, T. J. 2005. Provided program training to Dodge County Dairy Leaders. January 27. Juneau, WI.

Halbach, T. J. 2004. Spoke at 4-H Animal Science Road Show. December 1-2. Dodge, Calumet, Price, and Wood Counties, WI.

Halbach, T. J. 2004. Provided dairy workshop for Neenah High School Animal Care and Management class. November 11, 2004. Madison, WI.

Halbach, T. J. 2004. Coordinated World Dairy Expo judging workout involving seven farms and over 150 participants. September 27-29. Southern Wisconsin.

Halbach, T. J. 2004. Provided seminar, "Developing a Comprehensive Dairy Herd Mating Strategy" for National 4-H Dairy Conference. September 29-29. Madison, WI.

Halbach, T. J. 2004. Spoke on evaluating and judging dairy cows at Babcock Institute World Dairy Expo Short Course. September 29. Madison, WI.

Halbach, T. J. 2004. Provided a workshop on US Dairy Evaluation methods for Babcock Institute group, PRC/US Grains Council. August 8. Madison, WI.

Halbach, T. J. 2004. Coordinated fitting and showmanship workshop for Clark County 4-H Dairy Project members. July 19. Greenwood, WI.

Halbach, T. J. 2004. Moderated dairy bowl at the Holstein Association, USA's national dairy bowl competition. July 3. Omaha, NE.

Halbach, T. J. 2004. Presented overview of UW-Extension's Dairy Youth Programs to Wisconsin 4-H Foundation's Board of Directors. June 23. Madison, WI.

Halbach, T. J. 2004. Spoke on US dairy cattle evaluation methods at ITESM-CQ Study Tour. June 4. Madison, WI.

Halbach, T. J. 2004. Spoke on US dairy cattle evaluation methods at International Farmers Aid Association. June 7. Madison, WI.

Halbach, T. J. 2004. Provided a farm visit workshop for Waunakee St. John's Elementary School. May 31. Waunakee, WI.

Halbach, T. J. 2004. Presented an overview of 4-H dairy youth programs for new hired county 4-H agents. May 21. Madison, WI.

Halbach, T. J. 2004. Coordinated dairy workshop for Lake Mills FFA chapter. May 5. Madison, WI.

Halbach, T. J. 2004. Coordinated PDCA dairy cattle judges clinic. April 30. Viroqua, WI.

Halbach, T. J. 2004. Coordinated WI Junior Guernsey Breeder's Association's dairy quiz bowl contest. March 6. Wausau, WI.

Halbach, T. J. 2004. Moderated dairy bowl at Wisconsin Holstein Association's Junior Convention. January 1-2.

Halbach, T. J. 2003. Presented seminar, "Developing a Comprehensive Dairy Herd Mating Strategy" for National 4-H Dairy Conference. September 28 – October 1. Madison, WI.

Halbach, T. J. 2003. Coordinated World Dairy Expo judging workout involving seven farms and over 150 participants. September 27-29. Southern Wisconsin.

Halbach, T. J. 2003. Spoke on evaluating and judging dairy cows at Babcock Institute World Dairy Expo Short Course. September 29. Madison, WI.

Halbach, T. J. 2003. Coordinated "railbird" judging workshop at Wisconsin State Brown Swiss Show. June 28. Marshfield, WI.

Halbach, T. J. 2003. Provided workshop, "Educational Components of the State FFA Dairy Career Development Event" to Wisconsin Association of Vo-Ag Instructors. June 23. Middleton, WI.

Halbach, T. J. 2003. Moderated National Guernsey Convention's dairy bowl contest. June 20. Hudson, WI.

Halbach, T. J. 2003. Spoke at the St. Croix County Holsteins Breeders Twilight Meeting. June 19. Balwin, WI.

Halbach, T. J. 2003. Spoke on US dairy cattle evaluation methods to ITESM-CQ Study Tour. June 4. Madison, WI.

Halbach, T. J. 2003. Spoke on US dairy cattle evaluation methods to International Farmer Aid Association. June 3. Madison, WI.

Halbach, T. J. 2003. Provided workshop for dairy youth. May 3. Sheboygan, WI.

Halbach, T. J. 2003. Coordinated PDCA dairy cattle judges clinic. April 19. New Richmond, WI.

Halbach, T. J. 2003. Provided showmanship workshop at the Fond du Lac Dairy Youth Day of Learning. January 25. Fond du Lac, WI.

Halbach, T. J. 2003. Presented overview of UW-Extension's Dairy Youth Programs for State 4-H Staff. January 13. Madison, WI.

Halbach, T. J. 2003. Moderated Wisconsin Holstein Association's Junior Convention dairy bowl contest. January 4-6. Middleton, WI.

Halbach, T. J. 2002. Presented overview of UW-Extension Dairy Youth Programs as part of the 4-H Animal Sciences Road Show. December 9-11. Green Bay, Wausau, Eau Claire, Fond du Lac, and Janesville, WI.

Halbach, T. J. 2002. Banquet speaker and presented seminar “Planning a Comprehensive Dairy Herd Mating Strategy” at National 4-H Dairy Conference. September 26-October 2. Madison, WI.

Halbach, T. J. 2002. Coordinated World Dairy Expo judging practice tour, involving seven farms and over 150 participants. September 28-30. Southern Wisconsin.

Halbach, T. J. 2002. Spoke on evaluating and judging dairy cattle at World Dairy Expo Short Course. September 30. Madison, WI.

Halbach, T. J. 2002. Presented video tape on dairy show ethics and spoke on admissions standards at UW-Madison for WI Association of Vo-Ag Instructors. July 11. Middleton, WI.

Halbach, T. J. 2002. Coordinated fitting and showmanship workshop for Clark County 4-H Dairy Project members. July 9. Loyal, WI.

Halbach, T. J. 2002. Spoke on youth showmanship workshops at Minnesota PDCA Judges Conference. July 3. Cannon Falls, MN.

Halbach, T. J. 2002. Provided workshops on dairy evaluation techniques, nutrition, and reproduction for Wisconsin 4-H and Youth Conference. June 18. Madison, WI.

Halbach, T. J. 2002. Spoke on dairy cattle evaluation methods in the US at the International Farmers Aid Association. June 3. Madison, WI.

Halbach, T. J. 2002. Presented workshops on Exploring the Dairy Cow Rumen and Opportunities in the Dairy Industry. May 8. Madison, WI.

Halbach, T. J. 2002. Provided dairy judging for 4-H youth. April 22, 27, May 10. Viroqua, Mineral Point, Barron, WI.

Halbach, T. J. 2002. Coordinated PDCA dairy judging clinic. April 18. Viroqua, WI.

Halbach, T. J. 2002. Banquet speaker and dairy bowl coordinator at the Wisconsin Junior Guernsey Association Convention. March 9. Hudson, WI.

Halbach, T. J. 2002. Moderated Wisconsin 4-H dairy bowl contest. January 26. Wisconsin Dells, WI.

Halbach, T. J. 2002. Moderated dairy bowl contest at Wisconsin Holstein Association Junior Convention. January 5-6. La Crosse, WI.

Halbach, T. J. 2001. Presented overview of UW-Extension Dairy Youth Programs as part of the 4-H Animal Sciences Road Show. December 4-7. Menomonie, Appleton, Richland Center, and Jefferson, WI.

Halbach, T. J. 2001. Provided seminars on Body Condition Scoring for Wisconsin Humane Officer Training. October 23. Madison, WI.

Halbach, T. J. 2001. Spoke on evaluating and judging dairy cattle, Babcock Institute World Dairy Expo Short Course. October 1. Madison, WI.

Halbach, T. J. 2001. Banquet speaker and provided seminar “Planning a Comprehensive Mating Strategy for the Dairy Herd” at National 4-H Dairy Conference. September 30 – October 3. Madison, WI.

Halbach, T. J. 2001. Coordinated World Dairy Expo dairy judging workout, involving seven farms and over 150 participants. September 29-October 1. Southern Wisconsin.

Halbach, T. J. 2001. Spoke at Brown Swiss Canton I Picnic. September 10. Watertown, WI.

Halbach, T. J. 2001. Prepared dairy workshops for the Wisconsin Teacher Enhancement Program on milk quality, nutrition, dairy production, and reproduction. July 25. Madison, WI.

Halbach, T. J. 2001. Provided workshop on linear evaluation techniques for WI Association of Vo-Ag Instructors. June 28. Middleton, WI.

Halbach, T. J. 2001. Provided workshop on dairy evaluation techniques, nutrition and reproduction at Wisconsin 4-H & Youth Conference. June 19. Madison, WI.

Halbach, T. J. 2001. Provided workshop on dairy bowl to Dairy Technology Update for County Dairy/Livestock Agents Meeting. May 31. Marshfield, WI.

Halbach, T. J. 2001. Provided a report on UW-Extension Dairy Youth Programs to 4-State Extension Program Planning Meeting. May 7. Dubuque, IA.

Halbach, T. J. 2001. Coordinated PDCA dairy cattle judges clinic. May 2. Seymour, WI.

Halbach, T. J. 2001. Provided workshops on showmanship and on rumen development at Sheboygan County 4-H Dairy Day. April 28. Sheboygan Falls, WI.

Halbach, T. J. 2001. Spoke on motivating dairy farm employees at NMC/PDPW Joint Conference on Milk Quality. April 9. Madison, WI.

Halbach, T. J. 2001. Provided dairy judging workshop for 4-H youth. March 24. Barron, WI.

Halbach, T. J. 2001. Spoke on the value of mentoring at the PDPW Business Conference. March 6. Madison, WI.

Halbach, T. J. 2001. Presented workshops on Exploring the Dairy Cow Rumen and Opportunities in the Dairy Industry. March 5. Madison, WI.

Halbach, T. J. 2001. Spoke at and moderator at Wisconsin Holstein Association Junior Convention's dairy bowl contest. January 6-8. Wisconsin Dells, WI.

Halbach, T. J. 2000. Co-presented of "PDCA Registry Harmonization Study" results at National PDCA meeting. December 13. Milwaukee, WI.

Halbach, T. J. 2000. Spoke on UW-Extension Dairy Youth Programs at Kewaunee County Holstein Breeders' Banquet and Annual Meeting. December 4. Luxemburg, WI.

Halbach, T. J. 2000. Spoke on evaluating and judging dairy cows at the Babcock Institute World Dairy Expo Short Course. October 2. Madison, WI.

Halbach, T. J. 2000. Banquet speaker and presented seminar "Developing a Comprehensive Dairy Herd Mating Strategy" at National 4-H Dairy Conference. October 1-4. Madison, WI.

Halbach, T. J. 2000. Presented workshop on showmanship fundamentals at Waupaca County Fair. August 25-26. Weyauwega, WI.

Halbach, T. J. 2000. Spoke on value of cattle identification at the Tri-County Holstein Breeders' Twilight Meeting. July 30. Berlin, WI.

Halbach, T. J. 2000. Presented workshop on showmanship fundamentals at Clark County Fitting and Showmanship Clinic. July 18. Chili, WI.

Halbach, T. J. 2000. Spoke on changes at Junior State Fair and Show Ring Code of Ethics at Dodge County Junior State Fair Exhibitors meeting. July 17. Juneau, WI.

Halbach, T. J. 2000. Spoke on the dairy youth website. National Junior Holstein Convention. June 30-July 1. Columbus, OH.

Halbach, T. J. 2000. Spoke on UW-Extension Dairy Youth Programs at Canton 5 Brown Swiss Picnic. June 25. Marshall, WI.

Halbach, T. J. 2000. Presented workshops on dairy evaluation techniques, nutrition, and reproduction at Wisconsin 4-H and Youth Conference. June 20. Madison, WI.

Halbach, T. J. 2000. Coordinated and presented workshops on meat and dairy food quality issues at Agri-Science World. June 20. Madison, WI.

Halbach, T. J. 2000. Spoke on US dairy cattle evaluation methods at International Farmers Aid Association meeting. June 5. Madison, WI.

Halbach, T. J. 2000. Presented workshops on showmanship fundamentals at Wisconsin Junior Holstein Association Fitting and Showmanship Clinic. May 21. Galesville, WI.

Halbach, T. J. 2000. Presented workshops on Exploring Dairy Cow Rumen and Ultrasound to Manage Dairy Cow Reproduction at Lake Mills FFA meeting. May 12. Madison, WI.

Halbach, T. J. 2000. Provided a workshop on showmanship and laboratory session looking at the dairy cow reproductive tract for Sheboygan County 4-H Dairy Day. May 7. Sheboygan Falls, WI.

Halbach, T. J. 2000. Presented seminar “Educational and Career Opportunities in the Dairy Industry” at Washington County 4-H Animal Science Career Fair. April 30. West Bend, WI.

Halbach, T. J. 2000. Presented workshops on Understanding the Rumen and Career Opportunities in the Dairy Industry at Fort Atkinson FFA meeting. March 14. Madison, WI.

Halbach, T. J. 2000. Presented workshop on showmanship fundamentals at Green County 4-H Fitting and Showmanship Clinic. March 8. Monroe, WI.

Halbach, T. J. 2000. Spoke on value of mentoring at PDPW Business Conference. March 7. Madison, WI.

Halbach, T. J. 2000. Presented seminar “Elements of Successful Classifier Customer Service and Productive Life for Brown Swiss Cattle” at the Brown Swiss Cattle Breeders’ Association Classifier Staff Meeting. March 6. Beloit, WI.

Halbach, T. J. 2000. Presented workshops on Exploring the Dairy Cow Rumen and Ultrasound to Manage Dairy Cow Reproduction at Holmen FFA meeting. March 1. Madison, WI.

Halbach, T. J. 2000. Presented workshops on Understanding the Rumen and Career Opportunities in the Dairy Industry for Dodge County 4-H Dairy Project members. February 25. Madison, WI.

Halbach, T. J. 2000. Spoke on Managing Conformation for Increased Farm Profitability for Madison Area Peer Group Meeting. February 9. Marshall, WI.

Halbach, T. J. 2000. Spoke on UW-Extension Dairy Youth Programs for the Jackson County Holstein Breeders’ Meeting. January 22. Black River Falls, WI.

Halbach, T. J. 2000. Presented workshop “Understanding Pedigrees and Sire Summaries” at the Wisconsin Holstein Association Junior Convention. January 8-11. Oconomowoc, WI.

Halbach, T. J. 1999. Presented dairy workshop entitled “Animal Care” for the Lodi FFA. November 9. Lodi, WI.

Halbach, T. J. 1999. Presented youth activities plan for National 4-H Endowment meeting. November 4. Madison, WI.

Halbach, T. J. Spoke on career opportunities in the dairy industry at Tech Expo. October 25. Madison, WI.

Halbach, T. J. Spoke on evaluating and judging dairy cows at Babcock Institute World Dairy Expo Short Course. Madison, WI. October 5.

Halbach, T. J. Coordinated World Dairy Expo judging workout practice. October 2-3. Southern WI.

Halbach, T. J. 1999. Seminar presenter at National 4-H Dairy Conference. October 3. Madison, WI.

Halbach, T. J. 1999. Spoke on State Fair issues at Dane County 4-H Dairy Leaders Meeting. July 26. Madison, WI.

Halbach, T. J. 1999. Spoke on management of Hispanic labor at St. Croix County Dairy Breakfast. July 26. Baldwin, WI.

Halbach, T. J. 1999. Provided workshops on animal care at Upward Bound Conference. July 15. La Crosse, WI.

Halbach, T. J. 1999. Presented workshop at Crawford County Fitting and Showmanship Clinic. July 1. Prairie du Chien, WI.

Halbach, T. J. 1999. Spoke on career opportunities within the dairy industry at State FFA Convention. June 28. Madison, WI.

Halbach, T. J. 1999. Presented workshop at Portage County Fitting and Showmanship Clinic. June 26. Stevens Point, WI.

Halbach, T. J. 1999. Presented workshop entitled “Why Register?” at Fond du Lac County Holstein meeting. June 25. Fond du Lac, WI.

Halbach, T. J. 1999. Presented workshop on linear scoring cows at WI Holstein Association’s Cow Camp. June 20. Mishicot, WI.

Halbach, T. J. 1999. Presented dairy cattle judging workshop for Rock County 4-H Dairy Project. June 14. Whitewater, WI.

Halbach, T. J. 1999. Presented workshop on the dairy cow rumen at Agri-Science World. June 10. Madison, WI.

Halbach, T. J. 1999. Presented workshop on Linear Classification at WI 4-H & Youth Conference. June 8. Madison, WI.

Halbach, T. J. 1999. Spoke on the dairy cow rumen at Bayfield High School. May 8. Bayfield, WI.

Halbach, T. J. 1999. Spoke on the dairy cow rumen for Lake Mills FFA. May 5. Madison, WI.

Halbach, T. J. 1999. Coordinated PDCA judges clinic. April 30. Platteville, WI.

Halbach, T. J. 1999. Spoke on selecting and managing show calves for Taylor County 4-H Workshop. April 17. Medford, WI.

Halbach, T. J. 1999. Spoke on selecting and managing show calves for Columbia County 4-H Workshop. April 7. Portage, WI.

Halbach, T. J. Coordinated a dairy segment on Successful Women in Agriculture for WACTY Gifted Learners Seminars. April 6. Madison, WI.

Halbach, T. J. 1999. Provided a seminar on animal health for Boone County FFA. March 28. Marengo, IL.

Halbach, T. J. 1999. Spoke on promoting State Fair participation at Washington County 4-H Dairy Leaders. March 12. West Bend, WI.

Halbach, T. J. 1999. Spoke on selection and management of show calves at the Barron County 4-H Dairy Leaders meeting. March 8. Rice Lake, WI.

Halbach, T. J. 1999. Presented an overview of Dairy Youth Programs at Wisconsin Jersey Breeders’ Annual meeting. January 27. Green Bay, WI.

Halbach, T. J. 1999. Spoke on dairy modernization at Fond du Lac Forage Council Annual Meeting. January 18. Fond du Lac, WI.

Extramural Funds Obtained in Support of Extension Programming

Halbach, T.J. 2008. \$3,380 raised in support of Governor’s Dairyland Youth Celebration at the Wisconsin Junior State Fair.

Halbach, T.J. 2008. \$1,150 raised in support of Wisconsin State 4-H Dairy Cattle Judging Contest.

Halbach, T.J. 2008. \$350 raised in support of Wisconsin State Fair Productions Awards.

Halbach, T.J. 2008. \$1,575 raised for support of Wisconsin’s delegation to the National 4-H Dairy Conference.

Halbach, T.J. 2008. \$8,850 raised in support of National 4-H Dairy Conference in donations from industry organizations.

Halbach, T.J. 2008. \$12,945 raised in support of Badger Dairy Camp in grants and sponsorship gifts.

Halbach, T.J. 2008. \$3,000 grant received from the James W. Crowley Management and Extension Fund to support a summer intern.

Halbach, T.J. 2007. \$4,650 raised in support of Governor's Dairyland Youth Celebration at the Wisconsin Junior State Fair.

Halbach, T.J. 2007. \$350 raised in support of Wisconsin State 4-H Dairy Cattle Judging Contest.

Halbach, T.J. 2007. \$350 raised in support of Wisconsin State Fair Productions Awards.

Halbach, T.J. 2007. \$3,826 raised for support of Wisconsin's delegation to the National 4-H Dairy Conference.

Halbach, T.J. 2007. \$8,750 raised in support of National 4-H Dairy Conference in donations from industry organizations.

Halbach, T.J. 2007. \$12,680 raised in support of Badger Dairy Camp in grants and sponsorship gifts.

Halbach, T.J. 2007. \$3,000 grant received from the James W. Crowley Management and Extension Fund to support a summer intern.

Halbach, T. J. 2006. \$13,270 raised in support of the Badger Dairy Camp in grants and sponsorship gifts.

Halbach, T. J. 2006. \$8,850 raised in support of the National 4-H Dairy Conference in grants and sponsorship gifts.

Halbach, T. J. 2006. \$3,400 raised from the Wuethrich Foundation and WI Farm Bureau Federation in support of the Wisconsin delegation to the National 4-H Dairy Conference.

Halbach, T. J. 2006. \$3,000 grant received from the James W. Crowley Management and Extension Fund to support a summer intern.

Halbach, T. J. 2006. \$2,336 in grants received from the 4-H Dairy Endowment Fund to support WI dairy youth programming

Halbach, T. J. 2006. \$2,040 raised for the 4-H Dairy Endowment Fund and Wisconsin State Fair Park Youth Foundation through commissions earned from the youth lots at the 2006 Governor's Dairyland Sweepstakes Auction.

Halbach, T. J. 2006. \$350 contribution from AgSource Cooperative Services in support of WI Junior State Fair Production Awards.

Halbach, T. J. 2006. \$350 contribution from Blaine's Farm and Fleet in support of the State 4-H Senior Dairy Cattle Judging Contest.

Halbach, T. J. 2005. \$12,800 raised in support of the Badger Dairy Camp in grants and sponsorship gifts.

Halbach, T. J. 2005. \$8,850 raised in support of the National 4-H Dairy Conference in grants and sponsorship gifts.

Halbach, T. J. 2005. \$3,400 raised from the Wuethrich Foundation and WI Farm Bureau Federation in support of the Wisconsin delegation to the National 4-H Dairy Conference.

Halbach, T. J. 2005. \$3,000 grant received from the James W. Crowley Management and Extension Fund to support a summer intern.

Halbach, T. J. 2005. \$1,000 grant received from the 4-H Dairy Endowment Fund to support international team travel for the national champion Wisconsin 4-H Dairy Judging Team.

Halbach, T. J. 2005. \$700 grant received from the 4-H Dairy Endowment Fund to sponsor two state 4-H dairy quiz bowl team's participation at World Dairy Expo.

Halbach, T. J. 2005. \$400 grant received from the 4-H Dairy Endowment Fund for use with the WI 4-H Dairy Bowl.

Halbach, T. J. 2005. \$350 contribution from AgSource Cooperative Services in support of WI Junior State Fair production awards.

Halbach, T. J. 2005. \$121,693.63 given by Joe and Sharon Darcey to the UW Foundation to start the Joe and Sharon Darcey Youth Program Enhancement Fund.

Halbach, T. J. 2005. \$3,544 raised to fund team travel to the 2006 Southwestern Exposition and Livestock Show's Intercollegiate Dairy Cattle Judging Contest in Fort Worth, TX.

Halbach, T. J. 2004. \$11,688 raised in support of the Badger Dairy Camp in grants and sponsorship gifts.

Halbach, T. J. 2004. \$9,700 raised in support of the National 4-H Dairy Conference in grants and sponsorship gifts.

Halbach, T. J. 2004. \$3,400 raised from the Wuethrich Foundation and WI Farm Bureau Federation in support of the Wisconsin delegation to the National 4-H Dairy Conference.

Halbach, T. J. 2004. \$3000 grant received from the James W. Crowley Management and Extension Fund to support a summer intern.

Halbach, T. J. 2004. \$500 grant received from the James W. Crowley Management and Extension Fund for materials to revise the UWEX Dairy Skill-a-thons.

Halbach, T. J. 2004. \$1,000 grant received from the 4-H Dairy Endowment Fund to support international team travel for the national champion Wisconsin 4-H Dairy Judging Team.

Halbach, T. J. 2004. \$700 grant received from the 4-H Dairy Endowment Fund to sponsor two state 4-H dairy quiz bowl team's participation at World Dairy Expo.

Halbach, T. J. 2004. \$400 grant received from the 4-H Dairy Endowment Fund for use with the WI 4-H Dairy Bowl.

Halbach, T. J. 2004. \$250 grant received from the 4-H Dairy Endowment Fund to produce a videotape titled Oral Reasons for the 2004 Hoard's Dairyman Cow Judging Contest.

Halbach, T. J. 2004. \$200 grant received from the 4-H Dairy Endowment Fund for materials to revise the UWEX Dairy Skill-a-thons.

Halbach, T. J. 2004. \$350 contribution from AgSource Cooperative Services in support of WI Junior State Fair production awards.

Halbach, T. J. 2004. \$3,826 raised to fund team travel to the 2004 Southwestern Exposition and Livestock Show's Intercollegiate Dairy Cattle Judging Contest in Fort Worth, TX and to the 2004 Eastern States Exposition's Intercollegiate Dairy Cattle Judging Contest in Springfield, MA.

Halbach, T. J. 2003. \$12,058 raised in support of the Badger Dairy Camp in grants and sponsorship gifts.

Halbach, T. J. 2003. \$12,928 raised in support of the National 4-H Dairy Conference in grants and sponsorship gifts.

Halbach, T. J. 2003. \$3,400 raised from the Wuethrich Foundation and WI Farm Bureau Federation in support of the Wisconsin delegation to the National 4-H Dairy Conference.

Halbach, T. J. 2003. \$3000 grant received from the James W. Crowley Management and Extension Fund to support a summer intern.

Halbach, T. J. 2003. \$600 grant received from the 4-H Dairy Endowment Fund to survey state fair dairy youth exhibitors.

Halbach, T. J. 2003. \$400 grant received from the 4-H Dairy Endowment Fund for the WI 4-H Dairy Bowl.

Halbach, T. J. 2003. \$365 grant received from the 4-H Dairy Endowment Fund for distribution of Dairy Cattle Judging Made Easy – Interactive to WI 4-H dairy judging team coaches.

Halbach, T. J. 2003. \$350 contribution from AgSource Cooperative Services in support of WI Junior State Fair production awards.

Halbach, T. J. 2003. Raised \$1,556 to fund team travel to the 2004 Southwestern Exposition and Livestock Show Intercollegiate Dairy Cattle Judging Contest in Fort Worth, TX.

Halbach, T. J. 2002. \$13,324 raised in support of the Badger Dairy Camp in grants and sponsorship gifts.

Halbach, T. J. 2002. \$10,528 raised in support of the National 4-H Dairy Conference in grants and sponsorship gifts.

Halbach, T. J. 2002. \$2,900 raised from the Wuethrich Foundation and WI Farm Bureau Federation in support of the Wisconsin delegation to the National 4-H Dairy Conference.

Halbach, T. J. 2002. \$15,000 raised for the videotape project “The Rules are Black and White – And They Apply To All Breeds”.

Halbach, T. J. 2002. \$6,700 raised by the WI 4-H Calf Raffle for the WI 4-H Dairy Endowment Fund (planning committee member).

Halbach, T. J. 2002. \$3000 grant received from the James W. Crowley Management and Extension Fund to support a summer intern.

Halbach, T. J. 2002. \$400 grant received from the 4-H Dairy Endowment Fund for the WI 4-H Dairy Bowl.

Halbach, T. J. 2002. \$500 grant received from the 4-H Dairy Endowment Fund to revise the 4-H publication Dairy Cattle Judging Made Easy.

Halbach, T. J. 2002. \$300 grant received from the 4-H Dairy Endowment Fund to produce an oral reasons video tape.

Halbach, T. J. 2002. \$350 contribution from AgSource Cooperative Services in support of WI Junior State Fair production awards.

Halbach, T. J. 2001. \$3,400 raised from the Wuethrich Foundation and WI Farm Bureau Federation in support of the Wisconsin delegation to the National 4-H Dairy Conference.

Halbach, T. J. 2001. \$3000 grant received from the James W. Crowley Management and Extension Fund to support a summer intern.

Halbach, T. J. 2001. \$500 grant received from the 4-H Dairy Endowment Fund for the WI 4-H Dairy Bowl.

Halbach, T. J. 2001. \$500 grant received from the 4-H Dairy Endowment Fund for the James W. Crowley Dairy Leadership Awards.

Halbach, T. J. 2001. \$350 contribution from AgSource Cooperative Services in support of WI Junior State Fair production awards.

Halbach, T. J. 2001. \$17,192 USDA Federal-State Marketing Improvement Program Agricultural Marketing Service grant for Revision of the Standards for Dairy Breeding Cattle.

Halbach, T. J. 2001. \$8,000 raised in support of the National 4-H Dairy Conference.

Halbach, T. J. 2001. \$13,605 raised in support of the Badger Dairy Camp.

Halbach, T. J. 2000. \$3,000 raised from the Wuethrich Foundation in support of the Wisconsin delegation to the National 4-H Dairy Conference.

Halbach, T. J. 2000. \$3000 grant received from the James W. Crowley Management and Extension Fund to support a summer intern.

Halbach, T. J. 2000. \$500 grant received from the 4-H Dairy Endowment Fund for the WI 4-H Dairy Bowl.

Halbach, T. J. 2000. \$500 grant received from the 4-H Dairy Endowment Fund for the James W. Crowley Dairy Leadership Awards.

Halbach, T. J. 2000. \$8,653 raised in support of the Badger Dairy Camp.

Halbach, T. J. 1999. \$5,200 raised in support of National 4-H Dairy Conference.

Halbach, T. J. 1999. \$8,900 raised in support of Badger Dairy Camp.

Total Funds Raised Since 1999: \$450,712

Course Discontinuation Proposal

Subject Dairy Science (292)

Status Under Review by School/College

Proposer Catherine E Rook

Basic Information

Course number

302

Current course title

Dairy Cattle Husbandry Practicum

Chief academic officer of this unit

Kent A Weigel

Designee of chief academic officer for approval authority

Catherine E Rook; Michel A Wattiaux

What is the primary divisional affiliation of this course?

Biological Sciences

When will this change go into effect?

Spring 2013-2014

Currently crosslisted with

Rationale and Effects

Explain the need for the proposed discontinuation

Dairy Science 234 is proposed to replace Dairy Science 302 and is modeled after the proposed Dairy Science 233 course that fills a void for sophomores in the dairy science curriculum. This course is an elective that expands on the current Dairy Science 302 (also an elective), but keeps important aspects of that course, namely selected animal health and welfare topics, the transition cow project and hands-on labs. Further it expands the overview of the Dairy Science 233 prerequisite. It will further serve as preparation for internships that are required for Dairy Science majors.

Is this course discontinuation related to a new course proposal?

Yes

List new course number(s) and complete new course proposal for each new course

234 has been created and submitted

Explain the effect this discontinuation will have on any requirements or programs (degrees, majors, certificates)

None

Are any of these affected programs or requirements outside your academic unit?

No

Indicate the subjects that are most closely aligned with the affected academic units. The proposal will be sent to the academic units that support those subjects for review.

Additional comments (optional)

Attachments (optional) (please read "help" text before uploading an attachment)

New Course Proposal

Subject Biological Systems Engineering (112)

Status Under Review by School/College

Proposer Christopher Choi

Basic Information

Course Title

Introduction to Computer Aided Design

Transcript Title (limit 30 characters)

Intro to Computer Aided Design

Three-digit course number

270

Is this an honors course?

No

Is this an individual instruction course such as directed study, independent study, research or thesis (i.e., a course with no group instruction)?

No

Will this course be crosslisted?

No

Note the crosslisted subjects

What is the primary divisional affiliation of this course?

Physical Sciences

Is this a topics course?

No

Can students enroll in this course more than once for credit?

No

If yes, please justify

Typically Offered

Fall, Spring, Summer

Catalog Information

Minimum credits

3

Maximum credits

3

Grading System

A-F

Course Description (will be published in Course Guide)

Introduction to computer aided design (CAD) concepts and techniques, including two- and three-dimensional drawing presentation, methods of graphic communication and design synthesis. Specific topics include parametric solid modeling, part design, survey data and surface construction, orthographic drawings, dimensioning rules and drawing standards, assemblies, and animation.

Does the course have prerequisites or other requirements?

No

List the prerequisites and other requirements for the course

Indicate the component(s) that comprise the course. Check all that apply

Laboratory

Administrative Information

Chief Academic Officer

Douglas J Reinemann

Designee of chief academic officer for approval authority

David R Bohnhoff; Debra K Sumwalt

If there are additional contacts, please list

Will any courses be discontinued as a result of this proposal?

No

List course number(s) and complete a course discontinuation proposal for each course

Beginning Term

Spring 2013-2014

Academic/Program Information

Is this course intended for a new academic program for which UAPC approval has not yet been finalized?

No

Which program?

Explain the relationship and importance of the proposed course to existing programs or future programs. (A program is a certificate, major or degree.)

Because Computer Aided Design (CAD) has become an essential tool in modern engineering design and analysis, engineering students should become proficient in its application. This course will provide students the opportunity to develop an introductory-level proficiency in CAD techniques, and should generate a high demand among Biological Systems Engineering (BSE) majors, as well as all other engineering undergraduates. BSE students are fully expected to use the CAD packages to complete assignments in Engineering Design Practicum I and II (BSE 309 and 509).

Are any of these programs outside your academic unit?

No

Indicate the subjects that are most closely aligned with the other academic units. The proposal will be sent to the academic units that support those subjects for review.

Specify which requirement(s) this course meets, if any (e.g. satisfies third-level language, meets the major's capstone requirement, fulfills PhD minor requirement).

Meets the BSE major's engineering drafting course requirement

Do any of these requirements affect programs (degrees, majors, certificates) outside your academic unit?

No

Indicate the subjects that are most closely aligned with the other academic units. The proposal will be sent to the academic units that support those subjects for review.

Course Content

Describe the course content

This course introduces engineering students to computer aided design (CAD) concepts and techniques including two- and three-dimensional drawing presentation, methods of graphic communication, and design synthesis. The course has been designed primarily to train engineering students in the proper and efficient use of the latest engineering design tools.

Address the relationship of this course to other UW-Madison courses, including possible duplication of content

This course offers an alternative to such engineering graphics courses as M E 170 (Civil Engineering Graphics) and M E 231 (Introduction to Engineering Graphics). Although some basic course content is similar (e.g., dimensioning rules, orthographic projection, etc.), this course focuses on helping students to achieve CAD fluency and proficiency, which has become a critically important ability in the engineering professions.

Is there a relationship to courses outside your subject?

No

Indicate the outside affected subject(s). The proposal will be sent to those subjects for review.

List the instructor name and title (list multiple if applicable)

Christopher Choi, Professor

If the instructor is not a tenured or tenure-track faculty member at UW-Madison, please explain the instructor's qualifications here. Then, go to the "Justifications" tab and upload the instructor's c.v. in the "Additional Attachments" section.

Attach a syllabus. See "help" for an explanation of what must be included in the syllabus.

[BSE270-Syllabus-b.pdf](#)

Justifications

Explain how this course contributes to strengthening your curriculum

The BSE students in Machinery Systems/Food and Bioprocess/Structural Systems Engineering Specializations are expected to design and analyze two- and three-dimensional objects in their senior capstone design classes (BSE 309 and BSE 509). Likewise, students in Natural Resources and Environmental Engineering Specialization are expected to develop geospatial designs, and perform geotechnical modeling, and the corresponding, environmental sanitary analysis. To address the special needs of both areas, the course has two tracks. Track A teaches three-dimensional, parametric feature-based 3D modeling, which is used to create models, assemblies and animation clips; Track B emphasizes advanced 2D and 3D mapping and geospatial design and analysis in addition to providing an introduction to basic 3D solid modeling. Because the course covers instruction in a broad range of the computer graphics tools commonly used in various engineering disciplines, it should also provide an optimal introduction to those freshmen and sophomores who are interested in engineering design and visualization.

Provide an estimate of the expected enrollment

We expect approximately 40 Biological Systems Engineering majors per year, and we can handle as many as 200 students per year. If demand warrants, we can offer a 5-week summer session to accommodate an additional 50 students.

Justify the number of credits, following the federal definition of a credit hour (see help). Include the number of contact hours or, if contact hours are not an accurate measure of credit, provide an explanation of how credits are measured

Students will need a minimum of six (6) hours to complete the assigned tasks for each week of the approximately fifteen weeks. The proposed course is to be delivered online using Learn@UW. We will also offer two two-hour help sessions each week in a UW Computer-Aided Engineering (CAE) laboratory. Thus, students can have as many as four contact hours with the TA and/or the instructor per week. For each track, there will be ten (10) homework sets, two (2) examinations, and two (2) projects over the fifteen-week period.

If this is a variable credit course, provide rationale

Additional comments (optional)

CAD software systems can help engineers and designers to create visual representations and to assess and redesign their ideas more quickly. CAD-created representations also facilitate communication, allowing the viewer to see the image from a wide variety of angles and even to view various features in detail. For these reasons, CAD is now considered one of the most effective design and visualization tools available, and most engineering design firms and manufacturing companies, which range from the makers of automobiles to the manufacturers of agricultural machinery, have incorporated CAD into their design/production process. Thus, we feel it is essential to provide future engineers an early introduction to the CAD systems as well as practice in using them. Experiential data has shown that many pre-engineering students become enthused at the prospect of learning how to present objects visually and also that they tend to enjoy developing their spatial visualization abilities. They want to learn how to use the CAD program, and they also want to become proficient at using it. Consequently, the class has been designed not only to acquaint them with CAD but also to help them develop their skills while completing a series of modeling assignments designed to produce a portfolio of their efforts. The course will directly benefit students majoring in Biological Systems Engineering, Mechanical Engineering, Engineering Physics, Biomedical Engineering, and Civil and Environmental Engineering. To facilitate student access, the class will be offered electronically via the internet. This web-based version of the course will also include open, voluntary laboratory sessions designed to address students' special needs and provide personalized feedback and assistance. The arrangement will allow an instructor to maintain the course's rigor while still employing his or her own practical experience. This online course has been proposed and developed by Christopher Choi (Professor in Biological Systems Engineering) in collaboration with Kim Manner (Senior Lecturer in Mechanical Engineering). The Division of Continuing Studies and the College of Agricultural and Life Sciences funded the course development.

Additional attachments (optional) (please read "help" before uploading an attachment)

BSE270-Syllabus.pdf

L&S Designations

Should the course be reviewed for L&S liberal arts and science (LAS) credit?

No

What is the rationale for seeking LAS credit?

Level of the course, for L&S attributes (value required for all L&S courses and courses requesting LAS credit)

Should the course be reviewed for L&S breadth requirements?

No

Indicate which:

General Education Designations

Should the course be reviewed for the general education requirement?

No

Which requirements?

BSE 270 – Introduction to Computer Aided Design

Description of Course

BSE 375 introduces engineering students to computer aided design (CAD) concepts and techniques that include two- and three-dimensional drawing presentation, methods of graphic communication, data analysis, and design synthesis and production methods. This course is primarily designed to train engineering students in the proper and efficient use of the latest engineering design tools.

In this class, we offer two tracks:

Track A – fundamental and intermediate 3D part design, assembly, and drawing using SolidWorks

Track B – fundamental 3D part design, assembly, and drawing using SolidWorks, and civil, environmental and natural resources engineering design and documentation using Autodesk Civil 3D.

Thus, through the first half of the course, all students will use the same materials, and each student will be required to choose one module for the second half (either **track A** - intermediate SolidWorks, or **track B** – fundamental Civil 3D).

Student Code of Academic Integrity

Because CAD has become an essential tool in modern engineering design and analysis, we expect everyone to be proficient in its application by the end of the semester. To ensure each student's proficiency, we must insist that no student collaborates with any other student or other person during the examinations. For this reason, no communication by direct or electronic means will be allowed during an examination. While students are encouraged to share technical approaches and discuss freely the course's principles and applications, graded homework and projects must be the product of independent effort unless otherwise instructed. Failure to abide by this rule would constitute a violation of the code of conduct and would result in a disciplinary action determined according to the University's rules concerning dishonest scholarship.

As a first homework assignment, each student should pledge to abide by these rules by signing the "signature" line (at the end of this syllabus) and submitting the syllabus to the Learn@UW drop box. Students who do not submit a signed form will be administratively dropped from the class after the first week.

Locations and Times

Assignments will be posted via **Learn@UW**. You are free to work at your own pace as long as the assignment deadlines are met. However, you should complete each homework assignment in advance of its deadline as no late work will be accepted.

Contact Information

Course Instructor: Professor Christopher Choi

Email: cchoi22@wisc.edu

Office: BSE Room 205, (608) 262-0607

Office Hours: During regular lab hours or by your request

Teaching Assistant: To be announced.

Open Laboratory hours:

Monday 4-6 PM and Wednesday 5-7 PM: ME CAE Lab 2109

Computer stations will be available for all registered students during the lab hours. A teaching assistant will be in charge of each session. The TA will go over HW sets and previous examination problems.

Teaching Format and Homework/Examination Policy

The course will be conducted via *Learn@UW* with optional lab hours held to provide extra help. Two textbooks containing follow-along tutorials will be used as the main resources for the class, along with some additional materials and problems that will be posted on *Learn@UW*. It is recommended that you refrain from simply following each instruction in the tutorials and instead try to understand the principle upon which each step depends. Two 2-hour in-class exams will be given during the session, and a final project (Project 2) will be given at semester's end. Exams should be regarded as learning experiences, during which CAD skills can be both demonstrated and improved. The exams will be administered in the ME 2109 computer lab. If you are not in Madison during the semester, you should request special permission with a brief explanation of your circumstances. The exams will be released under the content tab of *Learn@UW* one minute prior to the beginning of the exam period and are to be deposited in the corresponding dropbox by the due time.

Exams turned in late will be severely penalized. After a 1-minute grace period, any exam turned in between 1 and 5 minutes late will receive a 20% penalty; any exam submitted beyond that time period (or not submitted at all) will receive no credit (the dropbox timestamp will be used to determine how late an exam was submitted).

EXAM 1	October 21 st , 4:00-6:00 pm	Use your own laptop or a UW CAE's PC station
EXAM 2	December 9 th , 4:00-6:00 pm	

Thirty-six (36) stations are available on the first-come first-served basis. We encourage each student to bring his/her own laptop.

Required Texts**Both Track A & B**

- **Engineering Design with SolidWorks 2012**
by David C. Planchard & Marie P. Planchard, SDC Publications, ISBN-13: 978-1585036974

Track B only (available through the UW e-library, do NOT purchase the book)

- **AutoCAD Civil 3D 2013 Essentials**
by Eric Chappell, Sybex, ISBN-13: 978-1118244807
<http://search.library.wisc.edu/catalog/WU9283850>

Required or Special Materials

Access to a latest-model computer with high-speed Internet connection.

Note: SolidWorks and AutoCAD Civil 3D should be operational on 64-bit Windows machines. Mac users must run Windows OS (i.e., use bootcamp or parallels to run Windows7 & 8 on Mac).

Installation Instructions

NOTE: Before continuing on, check to see whether your computer is 32-bit or 64-bit.

1. Create a CAE account here:

<https://my.cae.wisc.edu/tools/public/newuser//>

2. Once your CAE account is activated, authorize your computer:

<https://tethered.cae.wisc.edu/authorize/>

If you have any difficulties, please contact the CAE Helpdesk. You can call the helpdesk at (608) 262-5349, stop by the Helpdesk in 170 CAE or email at helpdesk@cae.wisc.edu. The CAE Helpdesk does not respond to help requests through comments on this website. For more information on when consultants are available at the helpdesk, please visit <http://www.cae.wisc.edu/caeconsultants>

To avoid compatibility issues, make sure that you install SolidWorks 2012 and AutoCAD Civil 3D 2013.

Grading Policy and Expected Grades

Ten (10) Homework sets	20 %
EXAM 1	30 %
EXAM 2	30 %
Project 1	5 %
Project 2	15 %
Total	100 %

The **approximate** final grade distribution is as follows:

$A \geq 92$; $87 \leq AB < 92$; $83 \leq B < 87$; $78 \leq BC < 83$; $73 \leq C < 78$; $65 \leq D < 73$; $F < 65$

The final grade distribution can change in order to reflect the overall class performance each semester.

Assignment Format

You will turn in your computer files via the **Learn@UW** drop box. You are required to read instructions carefully and ensure that all required files are turned in. You can easily forget to press the submit button when using **Learn@UW**, so please remember to verify that your file is in the drop box after you submit it. It is your responsibility to make sure that your files are properly submitted. You will receive no credit for any assignment you fail to submit, regardless of the reason. **All files for each assignment must be submitted in a single zip folder along with any previously created files that are reused in the assignment.** When you use SolidWorks, you will find that many files are dependent (referencing other files). If you fail to include all of the referenced files you will receive only partial credit for the assignment.

TENTATIVE SCHEDULE

(Fall 2013)

Week No. (Week of -)	Topic	Homework/ Project No. & Due: (Due time - 7 PM)
Week 1 (9/2-)	Syllabus + SolidWorks sketches	
Week 2 (9/9-)	Sketch relations, dimensions and parametric modeling	No. 1: Due 9/11
Week 3 (9/16 -)	SolidWorks part modeling Creating parts from orthographic drawings	No. 2: Due 9/18
Week 4 (9/23 -)	SolidWorks assembly modeling	No. 3: Due 9/25
Week 5 (9/30 -)	Creating an assembly from provided parts, e-drawings	No. 4: Due 10/2
Week 6 (10/7 -)	Part drawings, detail views, section views	No. 5: Due 10/9
Week 7 (10/14 -)	Project 1 – Piston part design, assembly, and animation Exam 1 prep session (W)	No. 6: Due 10/16
Week 8 (10/21 -)	Exam1 SolidWorks Sketch/Part Modeling/Part Drawings October 21st, 4:00-6:00 pm	
Week 9 (10/28 -)	Track A: More on SolidWorks assembly drawings Track B: AutoCAD Civil 3D topics start-2D drawings	Project 1 Due 10/30
(11/4 -)	Track A: SolidWorks revolve feature Molds, flashlight model Track B: Importing survey data and creating surfaces	No. 7: Due 11/6
Week 10 (11/11 -)	Track A: SolidWorks sweeps and lofts, finish flashlight model Track B: Alignments, profile views, and corridors	No. 8: Due 11/13
Week 11 (11/18 -)	Track A: Exploration of SolidWorks tools Track B: Grading and volumes	No. 9: Due 11/20
Week 12 (11/25 -)	Track A&B: Project 2 Assignment Thanksgiving Recess (No Lab session on Wednesday)	
Week 13 (12/2 -)	Exam 2 prep session (W)	No. 10: Due 12/4
Week 14 (12/9 -)	Exam2 Either SolidWorks (Track A) or AutoCAD Civil 3D (Track B) December 9th, 4:00-6:00 pm	
Week 15 (12/16 -)	Track A&B: Project 2 Due	Project 2 Due 12/18

BSE 270 – Introduction to Computer Aided Design

Description of Course

BSE 375 introduces engineering students to computer aided design (CAD) concepts and techniques that include two- and three-dimensional drawing presentation, methods of graphic communication, data analysis, and design synthesis and production methods. This course is primarily designed to train engineering students in the proper and efficient use of the latest engineering design tools.

In this class, we offer two tracks:

Track A – fundamental and intermediate 3D part design, assembly, and drawing using SolidWorks

Track B – fundamental 3D part design, assembly, and drawing using SolidWorks, and civil, environmental and natural resources engineering design and documentation using Autodesk Civil 3D.

Thus, through the first half of the course, all students will use the same materials, and each student will be required to choose one module for the second half (either **track A** - intermediate SolidWorks, or **track B** – fundamental Civil 3D).

Student Code of Academic Integrity

Because CAD has become an essential tool in modern engineering design and analysis, we expect everyone to be proficient in its application by the end of the semester. To ensure each student's proficiency, we must insist that no student collaborates with any other student or other person during the examinations. For this reason, no communication by direct or electronic means will be allowed during an examination. While students are encouraged to share technical approaches and discuss freely the course's principles and applications, graded homework and projects must be the product of independent effort unless otherwise instructed. Failure to abide by this rule would constitute a violation of the code of conduct and would result in a disciplinary action determined according to the University's rules concerning dishonest scholarship.

As a first homework assignment, each student should pledge to abide by these rules by signing the "signature" line (at the end of this syllabus) and submitting the syllabus to the Learn@UW drop box. Students who do not submit a signed form will be administratively dropped from the class after the first week.

Locations and Times

Assignments will be posted via **Learn@UW**. You are free to work at your own pace as long as the assignment deadlines are met. However, you should complete each homework assignment in advance of its deadline as no late work will be accepted.

Contact Information

Course Instructor: Professor Christopher Choi

Email: cchoi22@wisc.edu

Office: BSE Room 205, (608) 262-0607

Office Hours: During regular lab hours or by your request

Teaching Assistant: To be announced.

Open Laboratory hours:

Monday 4-6 PM and Wednesday 5-7 PM: ME CAE Lab 2109

Computer stations will be available for all registered students during the lab hours. A teaching assistant will be in charge of each session. The TA will go over HW sets and previous examination problems.

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The course will be conducted via *Learn@UW* with optional lab hours held to provide extra help. Two textbooks containing follow-along tutorials will be used as the main resources for the class, along with some additional materials and problems that will be posted on *Learn@UW*. It is recommended that you refrain from simply following each instruction in the tutorials and instead try to understand the principle upon which each step depends. Two 2-hour in-class exams will be given during the session, and a final project (Project 2) will be given at semester's end. Exams should be regarded as learning experiences, during which CAD skills can be both demonstrated and improved. The exams will be administered in the ME 2109 computer lab. If you are not in Madison during the semester, you should request special permission with a brief explanation of your circumstances. The exams will be released under the content tab of *Learn@UW* one minute prior to the beginning of the exam period and are to be deposited in the corresponding dropbox by the due time.

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Thirty-six (36) stations are available on the first-come first-served basis. We encourage each student to bring his/her own laptop.

Required Texts**Both Track A & B**

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by David C. Planchard & Marie P. Planchard, SDC Publications, ISBN-13: 978-1585036974

Track B only (available through the UW e-library, do NOT purchase the book)

- **AutoCAD Civil 3D 2013 Essentials**
by Eric Chappell, Sybex, ISBN-13: 978-1118244807
<http://search.library.wisc.edu/catalog/WU9283850>

Required or Special Materials

Access to a latest-model computer with high-speed Internet connection.

Note: SolidWorks and AutoCAD Civil 3D should be operational on 64-bit Windows machines. Mac users must run Windows OS (i.e., use bootcamp or parallels to run Windows7 & 8 on Mac).

Installation Instructions

NOTE: Before continuing on, check to see whether your computer is 32-bit or 64-bit.

1. Create a CAE account here:
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2. Once your CAE account is activated, authorize your computer:
<https://tethered.cae.wisc.edu/authorize/>

If you have any difficulties, please contact the CAE Helpdesk. You can call the helpdesk at (608) 262-5349, stop by the Helpdesk in 170 CAE or email at helpdesk@cae.wisc.edu. The CAE Helpdesk does not respond to help requests through comments on this website. For more information on when consultants are available at the helpdesk, please visit <http://www.cae.wisc.edu/caeconsultants>

To avoid compatibility issues, make sure that you install SolidWorks 2012 and AutoCAD Civil 3D 2013.

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The **approximate** final grade distribution is as follows:

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(Fall 2013)

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Week 9 (10/28 -)	Track A: More on SolidWorks assembly drawings Track B: AutoCAD Civil 3D topics start-2D drawings	Project 1 Due 10/30
(11/4 -)	Track A: SolidWorks revolve feature Molds, flashlight model Track B: Importing survey data and creating surfaces	No. 7: Due 11/6
Week 10 (11/11 -)	Track A: SolidWorks sweeps and lofts, finish flashlight model Track B: Alignments, profile views, and corridors	No. 8: Due 11/13
Week 11 (11/18 -)	Track A: Exploration of SolidWorks tools Track B: Grading and volumes	No. 9: Due 11/20
Week 12 (11/25 -)	Track A&B: Project 2 Assignment Thanksgiving Recess (No Lab session on Wednesday)	
Week 13 (12/2 -)	Exam 2 prep session (W)	No. 10: Due 12/4
Week 14 (12/9 -)	Exam2 Either SolidWorks (Track A) or AutoCAD Civil 3D (Track B) December 9th, 4:00-6:00 pm	
Week 15 (12/16 -)	Track A&B: Project 2 Due	Project 2 Due 12/18

Course Change Proposal

Subject Biological Systems Engineering (112)

Status Under Review by School/College

Proposer David R Bohnhoff

Basic Information

Current course number

461

Current course title

Bioprocessing Unit Operations

Current published course description

Principles of mechanics, fluid dynamics, and heat and mass transfer as applied to bioprocessing operations. Specific focus on unit operations associated with the production of biofuels, biomaterials, pulp and paper, and post-harvest processing of food and forages.

Chief academic officer of this unit

Douglas J Reinemann

Designee of chief academic officer for approval authority

David R Bohnhoff; Debra K Sumwalt

Currently crosslisted with

What is the primary divisional affiliation of the course?

Physical Sciences

When will this change go into effect?

Spring 2013-2014

Basic Changes

Will the subject change?

No

Current subject

Biological Systems Engineering (112)

Proposed subject

Will the course number change?

No

Current course number

461

Proposed course number

Is this an honors course?

Is this an individual instruction course such as directed study, independent study, research or thesis (i.e., a course with no group instruction)?

Will the title change?

Yes

Current title

Bioprocessing Unit Operations

Proposed title (max. 100 chars.)

Food and Bioprocessing Operations

Proposed transcript title (max. 30 chars.)

Food&Bioprocessing Operations

Will the crosslistings change?

No

Current crosslistings

Proposed crosslistings

Will the "repeatability" of the course change?

No

Current repeatability

Proposed repeatability

Catalog Changes

Will the credits change?

No

Current minimum credits

3

Current maximum credits

3

Proposed minimum credits

Proposed maximum credits

Will the grading system change?

No

Current grading system

Proposed grading system

Will the published course description change?

Yes

Current course description

Principles of mechanics, fluid dynamics, and heat and mass transfer as applied to bioprocessing operations. Specific focus on unit operations associated with the production of biofuels, biomaterials, pulp and paper, and post-harvest processing of food and forages.

Proposed course description

Principles of mechanics, fluid dynamics, and heat and mass transfer as applied to food and bioprocessing operations. Specific focus on unit operations and equipments associated with the products key to Wisconsin industries including pulp and paper, dairy products, ethanol, forage, and grain.

Will the prerequisites change?

No

Current prerequisites and other requirements

(BSE 249 or CBE 250) and (CIV ENGR 310 or CBE 320 or ME 363)

Proposed prerequisites and other requirements

Designation Changes

Will the Liberal Arts and Sciences (LAS) designation change?

No

What change is needed?

What is the rationale for seeking LAS credit?

Will the level of the course change for L&S attributes?

No

Current level:

Proposed level:

Will the L&S breadth requirement change?

No

Current breadth:

Proposed breadth:

Will the General Education Requirement change?

No

Current GER:

Proposed GER

Additional Information

Explain the relationship and importance of the proposed change to existing or future programs (i.e., degrees, majors and certificates)

This course has been a required course for undergraduate BSE students specializing in bioprocess engineering. It will now also be required for all undergraduate BSE students specializing in food engineering

Are any of these programs outside your academic unit?

No

Indicate the subjects that are most closely aligned with the other academic units. The proposal will be sent to the academic units that support those subjects for review.

Specify which requirement(s) this change affects, if any (e.g. satisfies third-level language, meets the major's capstone requirement, fulfills PhD minor requirement)

This course helps meet major requirements for BSE undergraduate students specializing in food and bioprocess engineering

Do any of these requirements affect programs (degrees, majors, certificates) outside your academic unit?

No

Indicate the subjects that are most closely aligned with the other academic unit. The proposal will be sent to the academic units that support those subjects for review.

Address the relationship of this change to other UW-Madison courses, including possible duplication of content

Course complements BSE 460 which teaches the fundamentals of different bioprocessing processes.

Is there a relationship to courses outside your subject?

No

Indicate the outside affected subject(s). The proposal will be sent to the academic units that support those subjects for review.

Will any courses be discontinued as a result of this change?

No

List course number(s) and complete a course discontinuation proposal for each course

Justification Changes

Explain the need for the change

BSE/Food Sci 542 Food Engineering Operations has not been taught since the spring of 2010 due to a lack of resources. Although BSE 461 was originally designed as a course to compliment BSE 542, it has now been modified to include unit operations associated with food processing because of the current status of BSE 542. When resources become available to again offer BSE 542, it is anticipated that the course will include advanced topics not covered in BSE 461.

Additional comments (optional)

Attach a syllabus

BSE 461 Syllabus with Schedule.pdf

Additional attachments (optional)(please read "help" text before uploading an attachment)

BSE 461 Food and Bioprocessing Operations

Instructor: Troy Runge

Offices: Room 2121, 1552 University Ave. (WEI) – primary
Room B35, 460 Henry Mall (Ag Eng)

Catalog Description

Principles of mechanics, fluid dynamics, and heat and mass transfer as applied to food and bioprocessing operations. Specific focus on unit operations and equipment associated with the products key to Wisconsin industries including pulp and paper, dairy products, ethanol, forage, and grain.

Course Overview

Food and bioprocess operations create and optimize the processes that convert biological materials into other forms needed by mankind. Application areas commonly associated with bioprocess engineering include the production of food, feed, biofuels and biomaterials through the design and operation of biomass harvesting, storage, and transportation systems, application and testing of product separation technologies, and the design of instrumentation to monitor and control biological systems processes.

The class will cover the principles of fluid flow, heat and mass transfer, and mechanical process operations as applied to food bioprocess industries. Fundamentals from chemical engineering will focus on specific examples with an emphasis on engineering calculations including the processing of food, feed, biofuels, and biomaterials. Several labs will be held during class period to provide the students with hands on experience.

Prerequisites: BSE 249 or CBE 250 and ME 363 or CBE 320 or CIV ENGR 310

Learning outcomes

Through enrollment in BSE 461, students should further develop their:

- Understanding of bioprocessing operations that occur including
 - Food processing
 - Feed production for animals
 - Biomass to fuels
 - Fiber and paper production
- Ability to analyze systems, components and processes. This includes:
 - An ability to apply concepts of constructing a series of operations to explain the transformations of mass and energy in the process
 - An ability to identify, formulate, and solve engineering problems associated with these unit operations
 - An ability to apply knowledge of math, science, and engineering fundamentals
 - An ability to use the techniques and tools of modern engineering practice
- Ability to design a system, component or process to meet desired needs of the process
- Ability to simulate a system or process to determine impact of theoretical changes and conduct virtual experiments to optimize components or system.

Course Policies on Examinations, Homework, and Grading

Problem solving is essential in becoming a skilled engineer and numerical problem solving will be stressed with class time devoted to discussion of problem solutions and initial problem set-up. Homework may be done in groups as cross-checking of work is an encouraged practice in both school and industry. It is expected that each student will complete and understand the problems they turn in. No partial credit will be given for problems that are “mostly right”, but have a simple error in a calculation. It is encouraged that you cross check with others to ensure such errors are minimized.

Your homework should be presented in a consistent format, one side per page, with each problem begun on a new page and care taken to present it in a professional manner. You should also include the following information on the top of each page: Name, date, course - homework number and insure that the pages are properly stapled. Late or unprofessionally prepared homework will not be accepted for credit, except under extraordinary circumstances as determined by the instructor.

There will be three examinations during the semester but no final comprehensive examination. The examinations will consist of an in class portion and a take-home portion to allow for longer times and more resources to be available for calculations. It is critical that you do the examination individually – no discussing with classmates. Breaching this trust will constitute cheating and be dealt with appropriately.

A class project will be assigned in week 5 following the first examination. A short written report and 15 minute Power Point presentation in the final week will be required with 50% of the grade coming from each portion. Based on class size, teams may be used but this will be determined by the instructor.

Class attendance

Class attendance and participation during lecture and calculation session is required. Absences require an email letting me know the reason for the absence and will be the student's responsibility to obtain the information missed from classmates. Missed examinations will not be allowed to be taken at a later date, unless a) there is a medical reason (I will require a doctor's note), or b) the absence was pre-approved with me (in case of a conference, interview, or other student event. In the case of pending bad weather I will send a communication in advance that the exam has been delayed.

As the exams have both an in-class and take home portion an inadvertent missing of class should still allow the student to receive some points on the examination.

Class Schedule

A separate document will be used to convey the class schedule including lectures, homework and lab due dates, and exams.

Grading

Course grades will be determined by the following distribution:

- Lab assignments 11.32% (3 reports – 20 pts each)
- Homework 22.64% (8 homework assignments – 15 pts each)
- Class project 9.43% (1 report, 1 presentation – 25 pts each)
- 3 Mid-term examinations 56.61% (20% each – 100 pts each)

It is the intent of the instructor to prepare material that creates a grading scale of:

- A >91.0%
- AB 89.0 to 90.9%
- B 81.0% to 88.9%
- BC 79.0 to 80.9%
- C 70.0% to 78.9%
- D 60.0% to 69.9%
- F <60.0%

The instructor reserves the right to adjust the grading scale to fit the performance of the class if needed.

Textbook

- McCabe, Smith, and Harriott, “Unit Operations of Chemical Engineering”, McGraw-Hill, 7th ed. (2005).

Useful Resources

- Doran, “Bioprocess Engineering Principles”, Academic Press (1995).
- Bird, Stewart, and Lightfoot, “Transport Phenomena”, 2nd ed., Wiley (2002).
- NIST Chemistry Web Book at <http://webbook.nist.gov/chemistry/>

BSE 461 Class Schedule

Week	Lecture slides	Date	Activity	Classroom	HW/Exam		Section
					Assigned	Due	
1	1	22-Jan	Class introduction/Engineering analysis	B25			1
1	2	24-Jan	Biomass properties	B25	HW 1 assigned		1
2	3	29-Jan	Biomass chemistry	B25			1
2	4	31-Jan	Fluid mechanics review	B25	HW 2 assigned	HW 1 due	1
3	5	5-Feb	Fluid transport	B25			1
3	6	7-Feb	Mixing & flow measurement	B25	HW 3 assigned	HW 2 due	1
4	7	12-Feb	Dairy & cheese processing	B25			1
4	8	14-Feb	Biodiesel	Lab		HW 3 due	1
5		19-Feb	Lab - fluid processes & biodiesel	Lab	Lab 1 assigned		1
5		21-Feb	Lab - fluid processes & biodiesel	B25	Exam 1 assigned		1
6		26-Feb	In-class exam	B25			2
6	9	28-Feb	Heat transfer & conduction	B25		Exam 1 due	2
7	10	5-Mar	Convection & heat exchangers	B25	HW 4 assigned	Lab 1 due	2
7	11	7-Mar	Evaporation & Distillation	B25			2
8	12	12-Mar	Drying	B25	HW 5 assigned	HW 4 due	2
8	13	14-Mar	Ethanol production	B25		HW 5 due	2
9	14	19-Mar	Pyrolysis/Gasification	B25	HW 6 assigned		2
9		21-Mar	Lab - fermentation & distillation	Lab			2
10		26-Mar	Spring break	N/A			2
10		28-Mar	Spring break	N/A			2
11		2-Apr	Lab - fermentation & distillation	Lab	Lab 2 assigned	HW 6 due	2
11		4-Apr	In-class exam	B25	Exam 2 assigned		3
12	15	9-Apr	Harvesting/storage/transportation	B25		Lab 2 due	3
12	16	11-Apr	Solid / fluid separation	B25	HW 7 assigned	Exam 2 due	3
13	17	16-Apr	Size reduction & densification	B25			3
13	18	18-Apr	Pulping	B25	HW 8 assigned	HW 7 due	3
14	19	23-Apr	Papermaking	B25			3
14		25-Apr	Lab - biomass characterization and size reduct	Lab		HW 8 due	3
15		30-Apr	Lab - biomass combustion	Lab	Lab 3 assigned		3
15		2-May	In-class exam	B25	Exam 3 assigned		3
16		7-May	Student presentations	B25		Lab 3 due	3
16		9-May	Student presentations	B25		Exam 3 due	3
Final		15-May	Turn project into my office by noon	B35 office		Project report due	3

New Course Proposal

Subject Biological Systems Engineering (112)

Status Under Review by School/College

Proposer Christopher Choi

Basic Information

Course Title

Heat and Mass Transfer in Biological Systems

Transcript Title (limit 30 characters)

Heat and Mass Transfer

Three-digit course number

464

Is this an honors course?

No

Is this an individual instruction course such as directed study, independent study, research or thesis (i.e., a course with no group instruction)?

No

Will this course be crosslisted?

No

Note the crosslisted subjects

What is the primary divisional affiliation of this course?

Physical Sciences

Is this a topics course?

No

Can students enroll in this course more than once for credit?

No

If yes, please justify

Typically Offered

Spring

Catalog Information

Minimum credits

3

Maximum credits

3

Grading System

A-F

Course Description (will be published in Course Guide)

Introduction to heat and mass transfer fundamentals, including transport mechanisms of conduction, convection, radiation, diffusion and evaporation. Development of governing equations and boundary conditions with application to living systems, controlled environments, water systems, and food processing. Introduction to, and application of, finite-difference and finite-volume methods, including computational fluid dynamics (CFD).

Does the course have prerequisites or other requirements?

Yes

List the prerequisites and other requirements for the course

M E 361, CBE 310 or an equivalent Thermodynamics course; M E 363, CBE 320, CEE 310 or an equivalent Fluid Mechanics course

Indicate the component(s) that comprise the course. Check all that apply

Lecture

Administrative Information

Chief Academic Officer

Douglas J Reinemann

Designee of chief academic officer for approval authority

David R Bohnhoff, Debra K Sumwalt

If there are additional contacts, please list

Will any courses be discontinued as a result of this proposal?

No

List course number(s) and complete a course discontinuation proposal for each course

Beginning Term

Spring 2013-2014

Academic/Program Information

Is this course intended for a new academic program for which UAPC approval has not yet been finalized?

No

Which program?

Explain the relationship and importance of the proposed course to existing programs or future programs. (A program is a certificate, major or degree.)

The transport of mass and energy is fundamental to many biological, agricultural and environmental processes, and thus the success of any efforts to solve many problems associated with food processing, animal husbandry, biofuel production, pollution control and global warming will depend on understanding the various transport mechanisms involved in the movement of mass and energy. For this reason, professional groups such as the American Society of Agricultural and Biological Engineers (ASABE) have recognized the significance of courses like BSE 464 -- courses that emphasize heat and mass transfer fundamentals and also demonstrate applications in a diverse range of fields. BSE 464 will thus add significantly to the curriculum in the Department of Biological Systems Engineering (BSE) and in particular benefit those students who are on such specific BSE tracks as Food Engineering, Natural Resources and Environmental Engineering, Bioprocess Engineering, and Structural Systems.

Are any of these programs outside your academic unit?

No

Indicate the subjects that are most closely aligned with the other academic units. The proposal will be sent to the academic units that support those subjects for review.

Specify which requirement(s) this course meets, if any (e.g. satisfies third-level language, meets the major's capstone requirement, fulfills PhD minor requirement).

As it is currently conceived, BSE 464 meets the major course requirement for BSE students on the following tracks: (i) Food Engineering, (ii) Natural Resources and Environmental Engineering, (iii) Bioprocess Engineering, and (iv) Structural Systems.

Do any of these requirements affect programs (degrees, majors, certificates) outside your academic unit?

No

Indicate the subjects that are most closely aligned with the other academic units. The proposal will be sent to the academic units that support those subjects for review.

Course Content

Describe the course content

The course will introduce engineering students to the fundamentals of heat and mass transfer and explore specific transport mechanisms such as conduction, convection, radiation, diffusion and evaporation. The course has been designed to train biological systems engineering students in the methods and procedures used to set up governing equations and boundary conditions. In addition, a number of in-class examples and homework assignments will teach students how to use the subject matter to solve real-world engineering problems that have biological and bioenvironmental applications. The homework assignments will involve problems related to thermoregulation, freezing, capillary flow, composting, ventilation, and sterilization. Context variables associated with plant and animal species, water quality, soil makeup, and atmospheric conditions, will be emphasized throughout the course. The class will also introduce students to finite-difference and finite-volume methods so that they will be able to properly and efficiently use Computational Fluid Dynamics (CFD) and other state-of-the-art computational tools.

Address the relationship of this course to other UW-Madison courses, including possible duplication of content

The parameter regimes inherent to biological and environmental processes are different from those of typical mechanical and chemical processes. While some basic course content (equations relating to momentum, energy and species) is similar to that of ME 364 and CBE 326, BSE 464 will also offer a series of exemplary biological, agricultural and environmental problems for students to solve. In addition, advanced topics will cover conjugate heat and mass transfer, and the final class project will require students to use Computational Fluid Dynamics to find comprehensive, quantitative solutions to a self-defined, open-ended problem.

Is there a relationship to courses outside your subject?

No

Indicate the outside affected subject(s). The proposal will be sent to those subjects for review.

List the instructor name and title (list multiple if applicable)

Christopher Choi, Professor

If the instructor is not a tenured or tenure-track faculty member at UW-Madison, please explain the instructor's qualifications here. Then, go to the "Justifications" tab and upload the instructor's c.v. in the "Additional Attachments" section.

Attach a syllabus. See "help" for an explanation of what must be included in the syllabus.

BSE464-Syllabus.pdf

Justifications

Explain how this course contributes to strengthening your curriculum

BSE students specializing in Food Engineering/Natural Resources and Environmental Engineering/Bioprocess Engineering/Structural Systems are expected to understand the fundamentals of heat and mass transfer. Additionally, graduate students in the similar research areas must have a comprehensive understanding of the various transport mechanisms and also experience in evaluating their influence on various biological phenomena. BSE 464, being a process-oriented course, will provide that understanding and experience by introducing students to the modeling and simulation programs that researchers currently use to solve biological, agricultural and environmental problems. The course will serve the BSE curriculum in three major ways: it will extend the fundamental knowledge that advanced students need to solve real-world problems in the biological, agricultural and environmental fields; it will introduce students to simulation-based design (as an alternative to a prototype-based design); and it will include a final team project that promotes teamwork.

Provide an estimate of the expected enrollment

We expect 30 undergraduate students from the Biological Systems Engineering Department and additional 5-10 graduate students. Thus, the total enrollment will be likely ranging from 35 to 40.

Justify the number of credits, following the federal definition of a credit hour (see help). Include the number of contact hours or, if contact hours are not an accurate measure of credit, provide an explanation of how credits are measured

Students will have as many as 2.5 contact hours with an instructor per week via direct faculty instruction. There will be ten (10) homework sets, three (3) examinations, and five (5) projects over the fifteen-week period. Thus, a minimum of six hours will be required to complete the tasks assigned during each week of the approximately fifteen weeks.

If this is a variable credit course, provide rationale

Additional comments (optional)

Additional attachments (optional) (please read "help" before uploading an attachment)

L&S Designations

Should the course be reviewed for L&S liberal arts and science (LAS) credit?

No

What is the rationale for seeking LAS credit?

Level of the course, for L&S attributes (value required for all L&S courses and courses requesting LAS credit)

Should the course be reviewed for L&S breadth requirements?

No

Indicate which:

General Education Designations

Should the course be reviewed for the general education requirement?

No

Which requirements?

BSE464 Biological Heat and Mass Transfer **Spring, 2014**

Course Instructor: Professor Christopher Choi
Email: cchoi22@wisc.edu, Phone: (608) 262-0607
Office: BSE Room 220,
Office Hours: TBA

Preceptors or TAs: TBA

LECTURES:

Time/Location – TBA (Tuesday and Thursday)

TEXTBOOK: *Biological and Bioenvironmental Heat and Mass Transfer* by Ashim Datta, 2002.

COURSE DESCRIPTION:

This course will introduce engineering and science students to the principles of heat and mass transfer as they apply to biological systems. Thermodynamics, fluid mechanics, and heat and mass transfer will be discussed in conjunction with agricultural, biological, and environmental engineering. Specific topics will include the transfer of heat and mass in living systems, in controlled environments, in water systems, and in the processing of food.

PRE-REQUISITES:

Thermodynamics (M E 361, CBE 310 or equivalent)
Fluid Mechanics (M E 363, CBE 320 or equivalent)

ADDITIONAL TEXTS FOR SUPPLEMENTAL READINGS:

Transport Phenomena of Food and Biological Materials by Gekas. CRC Press, 1992.
Transport Phenomena by Bird, Stewart, and Lightfoot. John Wiley and Sons Inc., 1960.
Fundamentals of Heat and Mass Transfer, by Incropera, DeWitt, Bergman, and Lavine. Wiley, 2011.

HOMEWORK AND PROJECT POLICY:

Twelve (12) homework sets and five (5) projects will be assigned and the due date for each set will be announced. Homework assignments and projects will be posted via **Learn@UW**. I will collect the homework **at the beginning of the class on the due date**. The completed project must be deposited in the corresponding Learn@UW dropbox by the due time. No late homework will be accepted. Submit your homework on 8-1/2" x 11" paper with your name and student number (last 4 digits). Do not use any portion of another person's work. You need to practice with these assignments to learn biological heat and mass transfer effectively and so you can build on these skills in future work.

PROJECT LIST:

1. Two Dimensional Thermal Conduction - Finite Difference Method using MATLAB-based programming
2. Introduction to CFD - Finite Volume Method using CFD
3. Laminar and Turbulent Flow – Comparison of CFD Solutions with Analytical Solutions and Experimental Results
4. Radiative Heat Exchange between Surfaces: Comparison of CFD Solutions with Analytical Solutions
5. Final Project – An application of CFD simulation tools for agricultural, biological and environmental systems. The proposal must include at least three components of conduction, convection, radiation, and mass transfer.

EXAMINATIONS:

Examinations will be conducted in the lecture room.

ATTENDANCE:

Students are expected to be regular and punctual in class attendance. Students themselves are primarily responsible for attendance. Excessive or extended absence from class is sufficient reason for the instructor to recommend that the student be administratively dropped from the course. If you are unable to attend regularly, contact the instructor immediately.

GRADING POLICY:

The final grade depends on the distribution of the final numerical grades and overall class performance.

Homework/CFD Projects	20 %
Exam 1	15 %
Exam 2	20 %
Exam 3	25 %
Final CFD Project	20 %
Total	100 %

The **approximate** final grade distribution is as follows:

A \geq 93; 88 \leq AB < 93; 83 \leq B < 88; 78 \leq BC < 83; 70 \leq C < 78; 60 \leq D < 70; F < 60

The final grade distribution can change in order to reflect the overall class performance each semester.

STUDENT CODE OF ACADEMIC INTEGRITY:

Students are encouraged to share intellectual views and discuss freely the principles and applications of course materials. However, graded work/exercises must be the product of independent effort unless otherwise instructed.

TENTATIVE SCHEDULE

(15-week schedule excluding Spring break)

Week No.	Topics	HW & Proj Due:
Week 1	Course Introduction Introduction to Thermodynamics & Heat and Mass Transfer Fundamentals of Conduction/Convection/Radiation/Mass Transfer	
Week 2	Conduction Governing Equations/Boundary Conditions/Initial Conditions	HW 1
Week 3	Steady-State Conduction Thermal Resistance/Heat Generation/Heat Exchanger Fins	HW 2
Week 4	Two-Dimensional Steady-State Conduction Introduction to Numerical Methods – Finite Difference Method	HW 3
Week 5	Exam 1 Introduction to Computational Fluid Dynamics (CFD) (Proj. 1)	HW 4
Week 6	Transient Conduction LCM/Spatial Effects/FDM	Proj. 1, HW 5
Week 7	Convective Heat Transfer Governing Equations and Boundary Conditions Boundary Layer Problems/Evaporation (Proj. 2)	HW 6
Week 8	External Flow Heat and Mass Transfer Analogy Laminar/Transitional/Turbulent Flows	Proj. 2
Week 9	Internal Flow Natural/Mixed/Forced Convection (Proj. 3) Final CFD Project Guideline	HW 8
Week 10	Free Convection Empirical Correlations/Similarity Exam 2	HW 9
Week 11	Boiling and Condensation - Fundamentals of two-phase flow Heat Exchangers Overall Heat Transfer Coefficient/NTU Method Final CFD Project Proposal Due	Proj. 3
Week 12	Radiation: Processes and Properties Blackbody Radiation/Emission from Real Surfaces	HW 10
Week 13	Radiation Exchange between Surfaces View Factor and Applications (Proj. 4)	HW 11
Week 14	Diffusion Mass Transfer Conservation Species/Boundary conditions/Transient Diffusion Exam 3	HW 12
Week 15	Final CFD Project Help Sessions	Proj. 4
Final Week	Final Project Due	Final Project

Course Change Proposal

Subject Biochemistry (200)

Status Under Review by School/College

Proposer Catherine Ryan

Basic Information

Current course number

508

Current course title

General Biochemistry II

Current published course description

Chemistry and metabolism of nucleic acids and protein synthesis. Molecular and cellular biology.

Chief academic officer of this unit

Elizabeth A Craig

Designee of chief academic officer for approval authority

Catherine Ryan

Currently crosslisted with

What is the primary divisional affiliation of the course?

Biological Sciences

When will this change go into effect?

Spring 2013-2014

Basic Changes

Will the subject change?

No

Current subject

Biochemistry (200)

Proposed subject

Will the course number change?

No

Current course number

508

Proposed course number

Is this an honors course?

Is this an individual instruction course such as directed study, independent study, research or thesis (i.e., a course with no group instruction)?

Will the title change?

No

Current title

General Biochemistry II

Proposed title (max. 100 chars.)

Proposed transcript title (max. 30 chars.)

Will the crosslistings change?

No

Current crosslistings

Proposed crosslistings

Will the "repeatability" of the course change?

No

Current repeatability

Proposed repeatability

Catalog Changes

Will the credits change?

No

Current minimum credits

3

Current maximum credits

4

Proposed minimum credits

Proposed maximum credits

Will the grading system change?

No

Current grading system

Proposed grading system

Will the published course description change?

Yes

Current course description

Chemistry and metabolism of nucleic acids and protein synthesis. Molecular and cellular biology.

Proposed course description

Biosynthesis of biological molecules, signal transduction mechanisms, chemistry and metabolism of nucleic acids, protein synthesis, and molecular and cellular biology.

Will the prerequisites change?

Yes

Current prerequisites and other requirements

Biochem 507. Honors stdts register for 4 cr, all others register for 3 cr

Proposed prerequisites and other requirements

A grade of BC or higher in Biochem 507, or consent of instructor. Honors credits available with consent of instructor.

Designation Changes

Will the Liberal Arts and Sciences (LAS) designation change?

No

What change is needed?

What is the rationale for seeking LAS credit?

Will the level of the course change for L&S attributes?

No

Current level:

Advanced

Proposed level:

Will the L&S breadth requirement change?

No

Current breadth:

P-Physical Science

Proposed breadth:

Will the General Education Requirement change?

No

Current GER:

Proposed GER

Additional Information

Explain the relationship and importance of the proposed change to existing or future programs (i.e., degrees, majors and certificates)

Not applicable. The content of the course is not changing, only the description of it.

Are any of these programs outside your academic unit?

No

Indicate the subjects that are most closely aligned with the other academic units. The proposal will be sent to the academic units that support those subjects for review.

Specify which requirement(s) this change affects, if any (e.g. satisfies third-level language, meets the major's capstone requirement, fulfills PhD minor requirement)

Do any of these requirements affect programs (degrees, majors, certificates) outside your academic unit?

Indicate the subjects that are most closely aligned with the other academic unit. The proposal will be sent to the academic units that support those subjects for review.

Address the relationship of this change to other UW-Madison courses, including possible duplication of content

Not applicable. The content of the course is not changing, only the description of it.

Is there a relationship to courses outside your subject?

No

Indicate the outside affected subject(s). The proposal will be sent to the academic units that support those subjects for review.

Will any courses be discontinued as a result of this change?

No

List course number(s) and complete a course discontinuation proposal for each course

Justification Changes

Explain the need for the change

To make the course description in ISIS consistent with the course description on the Department of Biochemistry's and IPIB's websites. The nature of the course is not changing.

Additional comments (optional)

Attach a syllabus

Additional attachments (optional)(please read "help" text before uploading an attachment)

Course Change Proposal

Subject Biochemistry (200)

Status Under Review by School/College

Proposer Catherine Ryan

Basic Information

Current course number

710

Current course title

Exploring Biochemical Function of Macromolecules

Current published course description

Focuses on topics and approaches applicable to an in-depth understanding of fundamental biochemical research. The first in a two-semester course series, it is required for biomolecular chemistry graduate students.

Chief academic officer of this unit

Elizabeth A Craig

Designee of chief academic officer for approval authority

Catherine Ryan

Currently crosslisted with

What is the primary divisional affiliation of the course?

Biological Sciences

When will this change go into effect?

Spring 2013-2014

Basic Changes

Will the subject change?

No

Current subject

Biochemistry (200)

Proposed subject

Will the course number change?

No

Current course number

710

Proposed course number

Is this an honors course?

Is this an individual instruction course such as directed study, independent study, research or thesis (i.e., a course with no group instruction)?

Will the title change?

No

Current title

Exploring Biochemical Function of Macromolecules

Proposed title (max. 100 chars.)

Proposed transcript title (max. 30 chars.)

Will the crosslistings change?

No

Current crosslistings

Proposed crosslistings

Will the "repeatability" of the course change?

No

Current repeatability

Proposed repeatability

Catalog Changes

Will the credits change?

No

Current minimum credits

Current maximum credits

Proposed minimum credits

Proposed maximum credits

Will the grading system change?

No

Current grading system

Proposed grading system

Will the published course description change?

Yes

Current course description

Focuses on topics and approaches applicable to an in-depth understanding of fundamental biochemical research. The first in a two-semester course series, it is required for biomolecular chemistry graduate students.

Proposed course description

Required for first-year IPIB graduate students, this course focuses on topics and approaches applicable to an in-depth understanding of fundamental biochemical research.

Will the prerequisites change?

No

Current prerequisites and other requirements

Proposed prerequisites and other requirements

Designation Changes

Will the Liberal Arts and Sciences (LAS) designation change?

No

What change is needed?

What is the rationale for seeking LAS credit?

Will the level of the course change for L&S attributes?

No

Current level:

Proposed level:

Will the L&S breadth requirement change?

No

Current breadth:

Proposed breadth:

Will the General Education Requirement change?

No

Current GER:

Proposed GER

Additional Information

Explain the relationship and importance of the proposed change to existing or future programs (i.e., degrees, majors and certificates)

The proposed change is mostly cosmetic, and brings the course description in line with how the course is actually taught and for whom.

Are any of these programs outside your academic unit?

No

Indicate the subjects that are most closely aligned with the other academic units. The proposal will be sent to the academic units that support those subjects for review.

Specify which requirement(s) this change affects, if any (e.g. satisfies third-level language, meets the major's capstone requirement, fulfills PhD minor requirement)

Do any of these requirements affect programs (degrees, majors, certificates) outside your academic unit?

Indicate the subjects that are most closely aligned with the other academic unit. The proposal will be sent to the academic units that support those subjects for review.

Address the relationship of this change to other UW-Madison courses, including possible duplication of content

Not applicable. The course itself is not changing, only the description of it.

Is there a relationship to courses outside your subject?

No

Indicate the outside affected subject(s). The proposal will be sent to the academic units that support those subjects for review.

Will any courses be discontinued as a result of this change?

No

List course number(s) and complete a course discontinuation proposal for each course

Justification Changes

Explain the need for the change

To be consistent with the course description on the Department of Biochemistry's and IPIB's websites, which is an accurate description of how the course is taught and to whom

Additional comments (optional)

Attach a syllabus

Additional attachments (optional)(please read "help" text before uploading an attachment)

New Course Proposal

Subject Biochemistry (200)

Status Under Review by School/College

Proposer Kelley S Harris

Basic Information

Course Title

Biochemistry Freshman Seminar

Transcript Title (limit 30 characters)

Biochemistry Freshman Seminar

Three-digit course number

100

Is this an honors course?

No

Is this an individual instruction course such as directed study, independent study, research or thesis (i.e., a course with no group instruction)?

No

Will this course be crosslisted?

No

Note the crosslisted subjects

What is the primary divisional affiliation of this course?

Biological Sciences

Is this a topics course?

No

Can students enroll in this course more than once for credit?

No

If yes, please justify

Typically Offered

Fall, Spring

Catalog Information

Minimum credits

1

Maximum credits

1

Grading System

A-F

Course Description (will be published in Course Guide)

Biochemistry 100 is a one-credit seminar course designed to introduce first year students to the Department of Biochemistry and to the larger university community. We will examine the opportunities and resources available in the Department of Biochemistry and the university with the goal of supporting students in their transition to UW-Madison, the College of Agricultural and Life Sciences and the Biochemistry Major.

Does the course have prerequisites or other requirements?

No

List the prerequisites and other requirements for the course

Indicate the component(s) that comprise the course. Check all that apply

Discussion

Lecture

Seminar

Administrative Information

Chief Academic Officer

Elizabeth A Craig

Designee of chief academic officer for approval authority

Catherine Ryan

If there are additional contacts, please list

Sarah Lynn Traver Saunders Sebastian Bednarek

Will any courses be discontinued as a result of this proposal?

No

List course number(s) and complete a course discontinuation proposal for each course

Beginning Term

Fall 2013-2014

Academic/Program Information

Is this course intended for a new academic program for which UAPC approval has not yet been finalized?

No

Which program?

Explain the relationship and importance of the proposed course to existing programs or future programs. (A program is a certificate, major or degree.)

The biochemistry freshman seminar is relevant to the biochemistry undergraduate major. The freshman seminar course creates opportunities for first year and transfer students to come into the department during year one. By engaging and interacting with the department's faculty and staff, students will be better informed of the biochemistry degree plan, research and job opportunities within the department, scholarship and study abroad programs, the department's student organization, and broader college and university services. The overarching goal of the course is to equip students with knowledge to aid them in making informed decisions about choosing biochemistry as an undergraduate degree plan and identify tools for success.

Are any of these programs outside your academic unit?

No

Indicate the subjects that are most closely aligned with the other academic units. The proposal will be sent to the academic units that support those subjects for review.

Specify which requirement(s) this course meets, if any (e.g. satisfies third-level language, meets the major's capstone requirement, fulfills PhD minor requirement).

This course will satisfy the CALS First Year Seminar requirement.

Do any of these requirements affect programs (degrees, majors, certificates) outside your academic unit?

No

Indicate the subjects that are most closely aligned with the other academic units. The proposal will be sent to the academic units that support those subjects for review.

Course Content

Describe the course content

The course content is divided into three areas: Science and society, the Department of Biochemistry history and research, and student services. In the science and society classes, we read and discuss characteristics of science as a way of knowing and understanding the natural world. We explore how science interacts with the general public using current events in science education, politics, and media. The Department of Biochemistry has a vibrant research legacy that we share with students via an emeritus faculty lecture. We also highlight ongoing research in the department by a series of faculty chalk-talks. During the student services component, we expose student to department, college, and university level resources and tools for success. We achieve this by out of classroom explorations and classroom visits.

Address the relationship of this course to other UW-Madison courses, including possible duplication of content

The Biochemistry Freshman seminar is complementary to other existing freshman seminar courses across campus. However, the Biochemistry Freshman seminar is unique in that a significant portion of the course focuses on exploring opportunities and resources specific to the Biochemistry department and the major. The value of the course is that now these resources are made aware to first year and transfer students early on in the degree plan.

Is there a relationship to courses outside your subject?

No

Indicate the outside affected subject(s). The proposal will be sent to those subjects for review.

List the instructor name and title (list multiple if applicable)

Sebastian Bednarek Kelley S. Harris

If the instructor is not a tenured or tenure-track faculty member at UW-Madison, please explain the instructor's qualifications here. Then, go to the "Justifications" tab and upload the instructor's c.v. in the "Additional Attachments" section.

Dr. Kelley Harris is an Asst Faculty Associate in the Biochemistry Department and has been for the past three years. She teaches in the department's introduction to biochemistry course and also works closely with undergraduates, leading the department's undergraduate initiatives. Importantly, Dr. Harris has developed the curriculum and taught for the past four semesters a pilot course, Biochemistry Freshman seminar (Biochem 375) in preparation for the proposed course.

Attach a syllabus. See "help" for an explanation of what must be included in the syllabus.

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Justifications

Explain how this course contributes to strengthening your curriculum

The course contributes to strengthening the curriculum because first year and transfer students have the opportunity to interact with faculty and staff, learn about the major and the department, and the opportunities available to them. The course is designed to support and foster community amongst the students.

Provide an estimate of the expected enrollment

We expect to enroll 30 students each fall and spring semester which aligns well with the approximate 70 new declared Biochemistry majors each academic year.

Justify the number of credits, following the federal definition of a credit hour (see help). Include the number of contact hours or, if contact hours are not an accurate measure of credit, provide an explanation of how credits are measured

We believe that one credit is appropriate for the Biochemistry Freshman seminar, as the course will meet once a week for 50 mins over the 15 weeks of a semester for instruction. The students will be required to complete regular reading and writing assignments which will require out of class time that will consume two hours per week.

If this is a variable credit course, provide rationale

Additional comments (optional)

Additional attachments (optional) (please read "help" before uploading an attachment)

[ResumeCP.pdf](#)

L&S Designations

Should the course be reviewed for L&S liberal arts and science (LAS) credit?

[No](#)

What is the rationale for seeking LAS credit?

Level of the course, for L&S attributes (value required for all L&S courses and courses requesting LAS credit)

Should the course be reviewed for L&S breadth requirements?

[No](#)

Indicate which:

General Education Designations

Should the course be reviewed for the general education requirement?

[No](#)

Which requirements?

**Biochemistry 375:
Biochemistry Freshman Seminar
Spring 2013**

Thursday, 11:00 am – 11:50 am, 1116 Biochemistry Bldg

Teaching Team and Office hours:

Dr. Kelley S. Harris-Johnson, MWF, 1 pm – 2 pm; 1142E Biochemistry
kellyharris@wisc.edu

Prof. Richard Amasino, MWF, 1 pm – 2 pm; 215B Biochemistry Addition
amasino@biochem.wisc.edu

Prof. Sebastian Bednarek, Wed., 11 am – 12 noon; 215c Biochemistry Addition
sybednar@wisc.edu

COURSE INFORMATION:

Course Description: Biochemistry 375 is a one-credit seminar course designed to introduce first year students to the Department of Biochemistry and to the larger university community. We will examine the opportunities and resources available in the Department of Biochemistry and the university with the hope of supporting students in their transition to UW-Madison.

Course Goals: By the end of the semester, students should:

1. Know enough about the biochemistry major at UW-Madison to begin to determine whether biochemistry is a major they want to pursue
2. Feel like a member of the biochemistry department community and feel comfortable interacting with faculty
3. Be able to identify resources at the university that will help them succeed at UW-Madison
4. Understand the variety of career opportunities available to individuals with biochemistry and/or life science backgrounds

Course Accessibility: The teaching team strives to include everyone in the opportunity to learn. Please let us know if you have additional learning considerations relating to the curriculum, instruction, or assessment of this course such that you can engage in the course more fully. We will do our best to protect the confidentiality of the information you share with us.

Course Materials and Learn@UW: All reading materials, guided reflection questions, grading rubrics, and support documents can be accessed at our Learn@UW course website. There are no textbooks for this course.

Course Expectations: You are expected to attend all course meetings. If you are ill, please notify a member of the teaching team prior to the start of class. You are responsible for submitting all assignments on time. Assignments must be typewritten. If you are absent on the

day of an in-class assignment, without prior arrangements, you will not receive credit for the activity.

Course Schedule:

Week	Topic	Assignment Due
Jan 24 <i>Classes start 1/22</i> <i>Student Org Fair 1/29</i> <i>IAP Open House 1/30</i>	Intro to the Course Entrance survey	
Jan 31 <i>Career and Internship Fair</i> <i>2/4</i>	Science and Society - I	
Feb 7	Science and Society - II	
Feb 14 <i>IAP Open House 2/20</i>	History of Biochemistry	Guided Reflection on Science and Society #1 Due
Feb 21	Faculty Talk: Professor Alan Attie	
Feb 28	Faculty Talk: Prof Hector De Luca	Choice Assignment #1 Due
Mar 7 <i>IAP Open House 3/13</i>	Faculty Talk: Prof Ann Palmenberg	
Mar 14	Faculty Interview Prep	Guided Reflection on the Faculty Talks #2 Due
Mar 21	In-Class Faculty Interview	
Mar 28 <i>Spring break 3/23 – 3/31</i>	No Class	
Apr 4 <i>Fall registration begins 4/8</i>	Student academic support services	
Apr 11	How to obtain a research experience	Choice Assignment #2 Due
Apr 18	Presentation by UBSO	
Apr 25	Career Panel	Four year plan with Integrated Experience plan Due
May 2	Peer review of first draft	Bring first draft of faculty interview to class
May 9	Biochemistry Lecture Exit survey	Faculty Interview Paper Due

Course Assignments:

15 points – Attendance and Class Participation - You are expected to attend all class meetings and actively participate in class discussions.

20 points – Guided Reflections (2 reflections, each 10 points) – You will type 2 – 3 paragraph reflections on topics discussed in class. These reflections will be ‘guided’ as the teaching team will provide prompts for each reflection. Guided reflections questions can be found on Learn@UW.

20 points – Choice Assignments (2 reflections, each 10 points) – You will type 2 - 3 paragraphs reflections on learning experiences of your choice. See below for options and writing prompts.

10 points – Prepare a Four Year Plan with integrated out of classroom experiences - You will complete a tentative ‘four-year’ plan of courses for your intended major. Road maps and curriculum sheets can be found at <http://www.cals.wisc.edu/academics/curriculum-information/curriculum-sheets/>. Also include ‘out of classroom’ learning experiences that you are interested in such as student organization participation, leadership activities, internships, study abroad opportunities, research experiences, etc. An example can be found on Learn@UW.

5 points – Peer Review of Faculty Interview Paper – You will review one of your classmate’s papers and provide thorough feedback to help improve your classmate’s interview paper.

30 points - Final Paper on Faculty Research – In groups of 5 students, you will conduct an interview with a biochemistry faculty member about their research and their career. In addition, you will read scientific literature about the faculty member’s research area. Based upon the information from the interview and the literature you will write a 3 - 4 page paper about the faculty member and his/her research program. Although you will conduct the interview as a group, your paper will be written individually. Guidelines and grading rubric can be found on Learn@UW.

Choice Learning Experiences:

Choose 2 activities to attend over the course of the semester and write a reflection of the experience.

1. **Attend the Student Organization Fair:** UW-Madison is home to over 800 student led organizations! Whatever your co-curricular interests are, I am sure we have a student org that can accommodate you! Further, a student organization is a great way to become involved in the university community and beyond. The assignment is to attend the student org fair on **Tuesday, January 29, 5 pm – 8 pm, at the Kohl Center** and identify 1 student organization you met with and in one paragraph describe what you find interesting about the group and how participation in the group aligns with your personal and/or professional goals.
2. **Attend an open house for International Academic Programs:** Your undergraduate experience is a great time to take advantage of an international experience. The assignment is to attend an open house event at the office of International Academic Programs to learn about international opportunities. These open houses are occurring on **1/30, 2/20, 3/13 at 4 pm -6 pm, room 106 Red Gym**. Identify 1 opportunity you are interested in learning more about. Request a business card and/or flyer for future reference. In one paragraph describe the study abroad experience and how the experience might be useful for your future career goals.
3. **Attend the Spring Career and Internship Fair:** Short-term employment as an undergraduate student is a great way to boost your resume and to gain valuable transferrable skills. Attend the career and internship fair **Monday, February 4, 4:30 pm – 8 pm, at the Kohl Center** and summarize in 1 paragraph the sort of companies and/or programs you met with and identify the next steps in following up on work opportunities.
4. **Write a personal statement and develop a resume:** Most employers, internship opportunities, professional school and/or graduate programs will require you to write a personal statement. The personal statement is an opportunity for you to speak for yourself; it is a platform for you to share your life experiences and for you to describe how those experiences make you qualified, knowledgeable, and prepared for future work or study. It is a critical piece of an application that can allow you to stand out as an exceptional candidate. To assist you through the process of writing a personal statement, thoughtfully respond to the personal statement questionnaire found at Learn@UW. Transform your answers into well-developed paragraphs for your personal statement, while highlighting your skills and relevant courses and explaining why are interested in a given opportunity. A resume is a short document that details relevant educational and training skills you have acquired. Resumes typically include contact information, educational achievements, relevant work experience and skills, and noteworthy honors. In this

assignment, develop a resume and tailor it to an experience of interest. A guide to building a resume and other helpful resources are posted on Learn@UW.

Grading Scale:

This course is designed to identify tools for success, not to prevent students from doing well at the university. As such, if assignments are timely and thoughtful, earning a high grade should not be a problem. This course will be graded as follows:

Grade	Points
A	90 – 100
AB	85 – 89
B	80 – 84
BC	75 – 79
C	70 – 74
D	Below 69

Kelley S. Harris – Johnson, Ph.D.

703 Eagle Heights, Apt I
Madison, Wisconsin 53705

Work Phone: (608) 262-9832
Cell Phone: (608) 469-3765
Email: kellyharris@wisc.edu

Education

University of Wisconsin-Madison

Ph.D., Genetics

Thesis: “*Molecular Insights to Lung Establishment and Lung Branching Morphogenesis*”

Degree Conferred: August 2008

Research Interests: *Developmental Biology, Gene Regulation, Evolution, and Science Education*

GPA: 3.53/4.00

Xavier University of Louisiana

B.S., Biology-Major; Chemistry-Minor

Degree Conferred: May 2003

Honors in Biology, Honors in Chemistry

Magna Cum Laude

GPA: 3.67/4.00

Professional Work Experience and Training

Instructor, Biochemistry Freshman Seminar

09/2011 – Present

Department of Biochemistry, University of Wisconsin-Madison – Madison

- Co-developed curriculum and co-teaches the biochemistry freshman seminar course
- Support first year and transfer biochemistry students in transitioning to the university

Administrator, Biochem/Biophysics subgroup of IBS-SRP

06/2011 – Present

Department of Biochemistry, University of Wisconsin-Madison – Madison

- Screen, identify, and match promising undergraduate students with Biochemistry and Biophysics faculty members for summer research experiences
- Lead weekly meetings with summer students to provide support and context for their research experiences
- Mentor students in scientific presentations (poster and oral), reading and writing scientific literature, and the nature of science

Leader of Undergraduate Student Services**01/2011 - Present***Department of Biochemistry, University of Wisconsin-Madison – Madison*

- Supervise two academic staff members, one position formally (Master's degree level) and a second position informally (Ph.D. degree level), in the student services group and one to two student hourly workers
- Responsible for the quality and accuracy of undergraduate advising and curriculum communication (advising documents, CALS and L&S DARS, the undergraduate catalog, and the Biochemistry undergraduate website)
- Work closely with the Chair of the Undergraduate Curriculum Committee (Biochemistry Department) for interpretation of the biochemistry undergraduate curriculum
- Responsible for assessment of the Undergraduate Program (contributed significantly to the ten year self study)
- Ensure completion of all course evaluations
- Provide undergraduate advising support to the associate student services coordinator position during critical times such as enrollment periods, transfer SOAR, summer SOAR, and prospective CALS visit days
- Responsible for proper allocation and distribution of the Biochemistry Undergraduate Summer Research Fund (~\$50,000) and Travel Award (\$10,000)
- Monitor and assist in enrollment of students in the department's undergraduate courses
- Support the Undergraduate Biochemistry Student Organization

Asst Faculty Associate**08/2010 – Present***Department of Biochemistry, University of Wisconsin-Madison – Madison*

- Provide to the department undergraduate curriculum both technical and organizational support, and enhance the incorporation of evidence-based effective teaching methodologies
- Manage course websites, syllabi, maintain student's point totals from exams, quizzes, and tabulate grades
- Assist faculty in creating materials for class presentation
- Coordinate the efforts of graduate level teaching assistants
- Contribute to creating exams, problem sets, and solution manuals
- Serve as an ombudsman for students enrolled in courses
- Responsible for the molecular biology section of Biochemistry 501
- Responsible for coordinating Peer Mentor Tutoring for Biochemistry 501
- Responsible for coordinating assignments for 289 Honor students in Biochemistry 508

Instructor, Special Topics: Case Studies in Microbiology**01/2010 – 05/2010***Department of Bacteriology, University of Wisconsin-Madison – Madison*

- Lead weekly seminar focused on the interaction of microbes and the environment and human biology
- Implemented scientific teaching instructional materials
- Developed assessment tools to measure attainment of learning goals

Post-Doctoral Training

09/2008 – 08/2010

Department of Biochemistry, University of Wisconsin-Madison – Madison

- Studied the molecular mechanisms of flowering time regulation in *Arabidopsis thaliana*
- Worked on developing *Brassica rapa* as a resource to teach Genetics and Plant Developmental Biology to undergraduate and K – 12 students
- Carried out an introgression program to move a mutant allele to a desired genetic background

Professional Development

- Serve as an invited judge and abstract reviewer for the Emerging Researchers National Conference (hosted by AAAS) to judge undergraduate and graduate student oral and poster presentations in the developmental biology category - **03/2013, 02/2012, 02/2011**
- Invited grant reviewer for AAAS Women's International Research Collaboration for Minority Serving Institution's (MSIs) – **09/2012**
- Member of the Scholastic Policies and Actions Committee, a CALS level committee charged with interpreting college policies for students in precarious academic standings – **08/2012 - Present**
- Served as an invited presenter for NEO/TIP, a two-day TA training workshop at UW-Madison, co-presented on formal assessment, a how-to on designing quizzes and exam questions – **01/2012, 01/2011**
- Led a scientific teaching workshop for W.H. Freeman Biology Teachers Workshop series, had the opportunity to disseminate information on scientific teaching and how to incorporate teaching techniques into traditional lectures – **02/2011**
- Participated in a book group at UW-Madison using, “How Learning Works” a book that describes seven principles of how students learn, how knowledge organization supports retrieval, and what impacts student's motivation – **01/2011 – 04/2011**
- Member of the Biochemistry Undergraduate Curriculum Committee, a department level committee charged with resolving undergraduate program issues and making recommendations to the faculty relating to the undergraduate major – **09/2010 -Present**
- Served as a group facilitator for the National Academies Summer Institutes on Undergraduate Education in Biology, worked with a group college biology teachers implementing scientific teaching tools into common biology topics – **06/2010**
- Participated in the Howard Hughes Medical Institute Teaching Fellows Program-Wisconsin Program for Scientific Teaching – **08/2009 – 06/2010**

- Participated in a book group at UW-Madison using, “A Hope in the Unseen”, a book based on a true account of a minority student’s struggle for academic success – **Spring, 2007**

Mentoring Experience

- Mentor/Friend to a Chancellor Scholar to provide support and friendship to a student while at UW-Madison – **09/2012 -Present**
- Volunteered to work with WISE, Women in Science and Engineering, Residential Program at UW-Madison, facilitated a roundtable discussion on undergraduate research opportunities in biology. Also served as an invited guest for the ‘Professor Dinner’ with the WISE women. **02/2013, 03/2012, 02/2012**
- Invited by AHANA Pre-Health student organization at UW-Madison to give a talk on how to secure research opportunities – **11/2011**
- Serve on the executive planning committee of EYH, Expanding Your Horizons, a volunteer organization of women in science that plan a day-long conference for middle school aged girls with the goal of exposing girls to careers in science – **08/2011 – Present**
- Served as a mentor to an evolutionary biology and genetics undergraduate student who completed a senior thesis project in the Amasino Laboratory. Trained student in molecular biology techniques and scientific writing and presentation – **09/2009 – 05/2010**

Research Publications

- “Beta-Catenin Controls Respiratory Progenitor Specification in Mouse.” **Harris-Johnson, KS**, Domyan, E, Vezina, C, and Sun, X. *Proc. Natl. Acad. Sci USA*, 2009, 106: 16287 – 16292.
- “Dicer Function is Essential for Lung Epithelium Morphogenesis.” **Harris, KS**, Zhang, Z, McManus, MT, Harfe, BD, and Sun, X. *Proc. Natl. Acad. Sci. USA*, 2006, 103: 2208 – 2213.
- “The L1 Retrotransposition Stimulation by Particulate and Soluble Cadmium Exposure is Independent of the Generation of DNA Breaks.” Kale, SP, Carmichael, MC, **Harris K**, Roy-Engel, AM. *Int. J. Environ. Res. Public Health*, 2006, 3: 121 – 128.

Skills

- Microsoft Office
- DARS
- Peoplesoft Software
- Hyperion/Interactive Reporting
- Desire2Learn

Honors and Awards

- Subject of a featured story on the 10th anniversary of the EXROP program for the *HHMI Bulletin* – *in preparation*
- Ford Foundation Dissertation Fellowship, awarded an one year fellowship to finish dissertation research, award was declined because thesis work was completed before the award was needed – **04/2008**
- David and Lucille Packard Graduate Research Scholar, awarded \$100,000 fellowship for graduate studies leading to the Ph.D. – **04/2003**
- Valedictorian of graduating senior class, Baker High School, Baker, Louisiana – **05/1999**

Kelley S. Harris – Johnson, Ph.D.

703 Eagle Heights, Apt I
Madison, Wisconsin 53705

Work Phone: (608) 262-9832
Cell Phone: (608) 469-3765
Email: kellyharris@wisc.edu

References:

Professor Richard M. Amasino, Ph.D.
215b Biochemistry
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Madison, WI 53706
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Email: amasino@biochem.wisc.edu

Dr. Janet L. Branchaw, Ph.D.
Room 109a
445 Henry Mall
Madison, WI 53706
Phone: (608) 262-1182
Email: branchaw@wisc.edu

Professor Elizabeth A. Craig, Ph.D.
441e Biochemistry
433 Babcock Dr.
Madison, WI 53706
Phone: (608) 263-7105
Email: ecraig@wisc.edu

Course Change Proposal

Subject Zoology (970)

Status Under Review by Divisional Committee

Proposer Nazan Atilla Gillie

Basic Information

Current course number

953

Current course title

Introduction to Ecology Research at UW-Madison

Current published course description

This seminar course will introduce new graduate students to the diversity of ecologists across the UW-Madison campus. Course meetings will include discussions of key topics in professional development, research presentations by faculty members, and discussions of assigned papers with senior graduate students.

Chief academic officer of this unit

Jeffrey D Hardin

Designee of chief academic officer for approval authority

Nada Wigand; Nazan Atilla Gillie

Currently crosslisted with

Forest And Wildlife Ecology (396)

Agronomy (132)

Botany (208)

Envir St - Gaylord Nelson Inst (360)

Entomology (355)

Geoscience (420)

What is the primary divisional affiliation of the course?

Interdivisional

When will this change go into effect?

Fall 2014-2015

Basic Changes

Will the subject change?

No

Current subject

Zoology (970)

Proposed subject

Will the course number change?

No

Current course number

953

Proposed course number

Is this an honors course?

Is this an individual instruction course such as directed study, independent study, research or thesis (i.e., a course with no group instruction)?

Will the title change?

No

Current title

Introduction to Ecology Research at UW-Madison

Proposed title (max. 100 chars.)

Proposed transcript title (max. 30 chars.)

Will the crosslistings change?

Yes

Current crosslistings

Forest And Wildlife Ecology (396)

Agronomy (132)

Botany (208)

Envir St - Gaylord Nelson Inst (360)

Entomology (355)

Geoscience (420)

Proposed crosslistings

Atmospheric & Oceanic Sciences (640)

Will the "repeatability" of the course change?

No

Current repeatability

Proposed repeatability

Catalog Changes

Will the credits change?

No

Current minimum credits

Current maximum credits

Proposed minimum credits

Proposed maximum credits

Will the grading system change?

No

Current grading system

Proposed grading system

Will the published course description change?

No

Current course description

This seminar course will introduce new graduate students to the diversity of ecologists across the UW-Madison campus. Course meetings will include discussions of key topics in professional development, research presentations by faculty members, and discussions of assigned papers with senior graduate students.

Proposed course description

Will the prerequisites change?

No

Current prerequisites and other requirements

Proposed prerequisites and other requirements

Designation Changes

Will the Liberal Arts and Sciences (LAS) designation change?

No

What change is needed?

What is the rationale for seeking LAS credit?

Will the level of the course change for L&S attributes?

No

Current level:

Proposed level:

Will the L&S breadth requirement change?

No

Current breadth:

Proposed breadth:

Will the General Education Requirement change?

No

Current GER:

Proposed GER

Additional Information

Explain the relationship and importance of the proposed change to existing or future programs (i.e., degrees, majors and certificates)

None

Are any of these programs outside your academic unit?

No

Indicate the subjects that are most closely aligned with the other academic units. The proposal will be sent to the academic units that support those subjects for review.

Specify which requirement(s) this change affects, if any (e.g. satisfies third-level language, meets the major's capstone requirement, fulfills PhD minor requirement)

None

Do any of these requirements affect programs (degrees, majors, certificates) outside your academic unit?

No

Indicate the subjects that are most closely aligned with the other academic unit. The proposal will be sent to the academic units that support those subjects for review.

Address the relationship of this change to other UW-Madison courses, including possible duplication of content

None

Is there a relationship to courses outside your subject?

No

Indicate the outside affected subject(s). The proposal will be sent to the academic units that support those subjects for review.

Will any courses be discontinued as a result of this change?

No

List course number(s) and complete a course discontinuation proposal for each course

Justification Changes

Explain the need for the change

The Department of Atmospheric and Oceanic Sciences includes several prominent members of the community of ecologists at UW (Galen McKinley, Ankur Desai). Though their students did not enroll in the precursor courses (Zoo 955 when offered by Carpenter and McIntyre in 2011 and 2012) to the new one (Zoo 953 and cross-listings), there is a consensus among the leadership the cross-cutting Wisconsin Ecology program that it was a substantial and problematic oversight to not cross-list the course with AOS. For instance, Wisconsin Ecology is actively developing an Ecology certificate program that will be available to ecology PhD students in all affiliated departments, and it is important that our physical and chemical ecology colleagues in AOS feel welcome to recommend Zoo 953 and the Ecology certificate to their graduate students. Finally, it is notable that AOS faculty have given guest lectures in the precursors of Zoo 953, and their willingness to continue to present their perspective to Ecology students from across campus will be jeopardized by excluding their home department from cross-listing.

Additional comments (optional)

Attach a syllabus

[Syllabus_953.pdf](#)

Additional attachments (optional)(please read "help" text before uploading an attachment)



Introduction to Ecology Research at UW-Madison

Zoology 953; 1 credit

Pete McIntyre, pmcintyre@wisc.edu, 890-3416



Meetings: Tuesday 4:00-5:30 pm & Thursday 4:30-6:00pm, Center for Limnology (Hasler) Room 210

Target audience: This seminar is designed specifically for incoming PhD students who are adjusting to graduate life at UW. Enrollment will be capped at 22 students. If space remains, incoming M.S. students and second-year PhD students will be considered.

This seminar course will introduce new graduate students to the diversity of ecologists across Wisconsin Ecology departments. Desired outcomes of the seminar include the following:

- 1) a strong cohort bond among new graduate students across departmental boundaries,
- 2) awareness of the breadth and depth of ecological research at UW,
- 3) dialogue between new and senior graduate students,
- 4) strategic thinking and sense of ownership regarding professional development.

We will make the most of two 90-minute meetings per week, with minimal outside work load. The Tuesday meeting will follow the 'faculty-on-parade' model; one professor will discuss her/his conceptual interests, scientific approach, and research results for an hour, followed by 30 minutes of student-led questions. Faculty presenters will be selected to represent the full range of subdisciplines, departments, and personal backgrounds within Wisconsin Ecology. I will act as moderator for all Tuesday meetings.

After reading one paper on the faculty presenter's research, the Thursday meeting will be a discussion with a senior graduate student from that lab. Discussion of the paper will be led by two of the new graduate students, with the senior graduate student helping to explain the work and offering a personal perspective on the research process from a student viewpoint. Students also will be encouraged to discuss other aspects of life as a graduate student. No faculty will be present during the Thursday conversation, encouraging students to talk freely.

The atmosphere in both weekly meetings will be casual, with priority placed on interaction among new students and with the visiting faculty and senior graduate students. Ecological research will be broadly construed, including evolutionary, conservation, and social science perspectives.

Grading policy: Grading will be on a Satisfactory/Unsatisfactory basis. A 'Satisfactory' grade will be awarded to any student who attends at least 60% of the course meetings and co-leads one discussion session. While active participation will be encouraged in all course meetings, that will not be considered in the grading. The intent of the course is to emphasize student agency in refining your own interests and interacting with the faculty and student community of ecologists at UW-Madison.



Introduction to Ecology Research at UW-Madison

Zoology 953; 1 credit

Pete McIntyre, pmcintyre@wisc.edu, 890-3416



Meetings: Tuesday 4:00-5:30 pm & Thursday 4:30-6:00pm, Center for Limnology (Hasler) Room 210

Schedule overview:

4 September – Introductions, and course overview (no meeting on 6 Sept)

11 & 13 September – Care and maintenance of your advisor; Time management

18 & 20 September – Data management (Erin Carrillo – UW Library) & Communicating to broad audiences; W.E. fall symposium

25 & 27 September – Galen McKinley & Val Bennington (post-doc)

2 & 4 October – Jon Pauli (Tues); discuss funding for graduate student research (Thurs)

9 & 11 October – Anna Pidgeon & Eric Wood (post-doc)

16 & 18 October – Rick Lindroth & John Couture (post-doc)

23 & 25 October – Warren Porter & Megan Fitzpatrick (post-doc)

30 October & 1 November – Trina McMahon & Emily Kara (post-doc)

6 & 8 November – Sara Hotchkiss & senior graduate student

13 & 15 November – Chris Kucharik & Mike Cruse and Brianna Laube (grad students)

20 November – discuss networking, collaboration, PhD committees, publication (Tues)

27 & 29 November – Linda Graham & Izak Smith (grad student)

4 & 6 December – Shawn Steffan & Jesse Pfammatter (grad student)

11 & 13 December – Communicating to broad audiences; feedback on this course