New Courses

Texas A&M University
Departmental Request for a New Course
Undergraduate ♦ Graduate ♦ Professional

• Submit original form and attach a course syllabus.•

RECEIVED
JUL 14 2014
GRADUATE STUDIES

Form Instructions

1. Course request type: ☐ Undergraduate ☒ Graduate ☐ First Professional (e.g. DVM, JD, MD, etc.)
2. Request submitted by *(Department or Program Name)*: Department of Economics
3. Course prefix, number and complete title of course: ECMT 673 - Economic Analytics
4. Catalog course description (not to exceed 50 words): ECMT 673 - Economic Analytics (3-0) Credit 3. Analysis of large household, corporate and financial data involving empirical modelling and SAS programming for prediction of economic decisions and outcomes. Lecture, discussion, and student team project presentation format. ~~Prerequisites: Graduate classification, enrollment in the master's program in economics.~~
5. Prerequisite(s): Graduate classification and enrollment in the master's program in economics.

   Cross-listed with: _____ Stacked with: _____

   Cross-listed courses require the signature of both department heads.
6. Is this a variable credit course? ☐ Yes ☒ No If yes, from _____ to _____
7. Is this a repeatable course? ☐ Yes ☒ No If yes, this course may be taken _____ times.

   Will this course be repeated within the same semester? ☐ Yes ☒ No
8. Will this course be submitted to the Core Curriculum Council? ☐ Yes ☒ No
9. This course will be:

   a. required for students enrolled in the following degree programs(s) *(e.g., B.A. in history)*

   MS in Economics

   b. an elective for students enrolled in the following degree program(s) *(e.g., M.S., Ph.D. in geography)*
10. If other departments are teaching or are responsible for related subject matter, the course must be coordinated with these departments. **Attach approval letters.**
11. ☒ I verify that I have reviewed the FAQ for *Export Control Basics for Distance Education* (http://vpr.tamu.edu/resources/export-controls/export-controls-basics-for-distance-education).
12.

Prefix	Course #	Title (excluding punctuation)
ECMT	673	ECONOMIC ANALYTICS

Lect.	Lab	SCH	CIP and Fund Code	Admin. Unit	Acad. Year	FICE Code
03	00	03	45060100001	0810	14-15	003632

Level 6

Approval recommended by:

Timothy Gronberg — 6/23/14
Department Head or Program Chair *(Type Name & Sign)* Date

Department Head or Program Chair *(Type Name & Sign)* Date
(if cross-listed course)

Patricia A. Hurley — Patricia A Hurley 7/11/
Chair, College Review Committee Date

Jose Luis Bermudez — Patricia A Hurley 7/
Dean of College Date

8-12-14
Chair, GC or UCC Date

Submitted to Coordinating Board by:

Associate Director, Curricular Services — Date — Effective Date

Questions regarding this form should be directed to Sandra Williams at 845-8201 or sandra-williams@tamu.edu.
Curricular Services – 04/14

CLLA 14423

TEXAS A&M UNIVERSITY

SYLLABUS

MASTER OF SCIENCE IN ECONOMICS

WITH A CONCENTRATION IN FINANCIAL ECONOMICS OR ECONOMETRICS

Economic Analytics

ECMT 673
Spring 2015

Faculty of Record:

Craig T. Schulman
845-8899, 599-9229, 324-5988
cschulman@brg-expert.com
Department of Economics
3013 Allen Building, TAMU 4228
College Station TX 77843-4228

Office Hours: Tuesday and Thursday 10 – 11:30 am and by appointment.

Course Description

The course focus is on the analysis of large data sets for prediction in economics. Students will be required to model empirical questions and program them in SAS, producing empirical studies of financial, household and individual income, corporate, and financial services industry data. The class will be conducted in a lecture/class discussion/student presentation format, with multiple applied projects prepared by teams of students.

Prerequisites: Graduate classification and enrollment in the master's program in economics.

Class Website: http://econweb.tamu.edu/cschulman/class/class.htm

Student Learning Goals

1. Students will practice and become thoroughly familiar with the application of financial and micro-economic analytical models.
2. Students will become expert in programming for analytical reporting using SAS.
3. Students will improve their presentation skills to demonstrate their understanding of problems, their ability to report findings clearly and succinctly, and their ability to explain the economic intuition in their analyses.

Class Policies

Class attendance is the responsibility of an individual student. However, you are responsible for material in the assigned readings **and** lectures. Therefore, attendance is in your best interest. I am also available for questions during the office hours listed above. If you are unable to meet during these hours, see me before or after class to make an appointment. If you must be absent for one of the exams, you should make prior arrangements with me, if at all possible. If you are unable to make prior arrangements (in the event of an accident or emergency), you must provide notification by the end of the second working day after the absence, including an explanation of why notice could not be sent prior to the class. If you miss an exam with an excused absence, a make-up quiz will be arranged. Unexcused absences result in a

zero on missed exams or assignments. I may require you to provide me additional documentation substantiating the reason for the absence, and that I find satisfactory, within one week of the last date of the absence. University rules related to excused and unexcused absences are located on-line at http://student-rules.tamu.edu/rule07

Course Grade

The final letter grade will be based upon the following distribution:

A = 90-100%
B = 80-89
C = 70-79
D = 60-69
F = <60

Your grades will be based on the combination of 2 exams, 5-6 assignments and a term project. They will be weighted as follows:

50%: **Combined for the 2 Exams**
20%: **Combined for the Assignments** (roughly one due every two weeks)
30%: **Term Project**

For most assignments I strongly recommend teamwork. For those assignments where teamwork is allowed, the group may turn in a single copy of the assignment listing all members of the team. For the Term Project, teams will be assigned according to a common interest in a particular company. Maximum team size for assignments is 3. Assignment teams and Term Project teams may be different. All assignments are due at the beginning of the class on the announced due date.

For the Term Project, the due date is the last day of classes. I will work closely with each project team to help define and focus the analytical exercise. The final product should be a typed 7-10 page paper discussing the objectives of the analytical exercise, the econometric analysis undertaken as part of that exercise and how the analyses address the initial objectives of the project.

Homework – Computer Assignments

Homework will be assigned approximately every-other week throughout the semester. All of the assignments will involve applying SAS to econometric problems. Students are expected to have worked on three levels of SAS certification during their Fall I semester:

SAS Foundation

1. SAS Certified Base Programmer for SAS 9
    a. Designed for programmers, analysts, data managers, or anyone writing SAS programs to access and manage data to perform queries and analyses
2. SAS Certified Advanced Programmer for SAS 9
    a. The next level for SAS Base Programmer for SAS 9 certified professionals and the foundation for many job roles

SAS Advanced Analytics

1. SAS Certified Predictive Modeler Using SAS Enterprise Miner 7
    a. Designed for SAS Enterprise Miner users who perform predictive analytics

In addition to SAS, we will often use the *Excel* spreadsheet program for data manipulation and graphing.

Academic Honesty

The Aggie Honor Code is: "An Aggie does not lie, cheat, or steal or tolerate those who do." Upon accepting admission to Texas A&M University, a student immediately assumes a commitment to uphold the Honor Code, to accept responsibility for learning, and to follow the philosophy and rules of the Honor

System. Students will be required to state their commitment on examinations, research papers, and other academic work. Ignorance of the rules does not exclude any member of the TAMU community from the requirements or the processes of the Honor System. For additional information please visit: http://aggiehonor.tamu.edu

Students in this course will be held to a **VERY HIGH** level of responsibility. When you graduate and are employed in industry, you represent yourself, your classmates, future program graduates, and the entire university. Reputation is a large part of the continued and growing success of the program and institution. We expect you to be excellent ambassadors for everyone associated with your educational experience here.

ADA Statement

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact Disability Services, in Cain Hall, Room B118, or call 845-1637. For additional information visit: http://disability.tamu.edu .

Course Schedule

Week 1	Introduction and Overview Data Acquisition
Week 2	Data Preprocessing
Week 3	Exploratory Data Analysis
Week 4	Exploratory Data Analysis - cont.
Week 5	Univariate Statistical Analysis
Exam 1	
Week 6	Regression Analysis 1
Week 7	Regression Analysis 2
Week 8	Regression Analysis 3
Week 9	Analysis of Variance
Exam 2	
Week 10	Time Series and Forecasting 1
Week 11	Time Series and Forecasting 2
Week 12	Time Series and Forecasting 3
Week 13	Time Series and Forecasting 4
Week 14	Time Series and Forecasting 5

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Texas A&M University
Departmental Request for a New Course
Undergraduate ♦ Graduate ♦ Professional

• Submit original form and attach a course syllabus.•

Form Instructions

1. Course request type: ☐ Undergraduate ☒ Graduate ☐ First Professional *(ex., DVM, JD, MD, etc.)*
2. Request submitted by *(Department or Program Name)*: Horticultural Sciences
3. Course prefix, number and complete title of course: Hort 641 Science of Foods For Health
4. Catalog course description (not to exceed 50 words): Provides recent scientific advances on knowledge of foods for health using evidence based research justification; includes interdisciplinary topics emphasizing horticultural science, nutrition and biochemistry.
5. Prerequisite(s): Approval of Instructor

   Cross-listed with: _____ Stacked with: _____

   Cross-listed courses require the signature of both department heads.
6. Is this a variable credit course? ☐ Yes ☒ No If yes, from _____ to _____
7. Is this a repeatable course? ☐ Yes ☒ No If yes, this course may be taken _____ times.

   Will this course be repeated within the same semester? ☐ Yes ☒ No
8. Will this course be submitted to the Core Curriculum Council? ☐ Yes ☒ No
9. This course will be:

   a. required for students enrolled in the following degree programs(s) *(e.g., B.A. in history)*

   b. an elective for students enrolled in the following degree program(s) *(e.g., M.S., Ph.D. in geography)*

   M.S., Ph.D. in Horticuture Sciences, Food and Nutrition
10. If other departments are teaching or are responsible for related subject matter, the course must be coordinated with these departments. **Attach approval letters.**
11. ☒ I verify that I have reviewed the FAQ for *Export Control Basics for Distance Education* (http://vpr.tamu.edu/resources/export-controls/export-controls-basics-for-distance-education).
12.

Prefix	Course #	Title (excluding punctuation)
HORT	641	SCIENCE OF FOODS FOR HEALTH

Lect.	Lab	SCH	CIP and Fund Code										Admin. Unit				Acad. Year				FICE Code					
~~2~~ 03	~~2~~ 00	~~2~~ 03	0	1	1	0	0	1	0	0	0	5	1	5	2	0	~~1~~ 15	~~6~~	-	~~1~~ 16	~~7~~	0	0	3	6	3	2

Level 6

Approval recommended by:

Patricia Klein 6/6/14
Department Head or Program Chair *(Type Name & Sign)* Date

Department Head or Program Chair *(Type Name & Sign)* Date
(if cross-listed course)

Submitted to Coordinating Board by:

Associate Director, Curricular Services

Chair, College Review Committee 7/7/14 Date

Dean of College 7/7/14 Date

Chair, SC or UCC 8-12-14 Date

Date Effective Date

Questions regarding this form should be directed to Sandra Williams at 845-8201 or sandra-williams@tamu.edu.
Curricular Services – 04/14

Syllabus–Fall 2016

Science of Foods for Health

TAMU-HORT 641
http://agrilife.org/foodsforhealth/

Instructor: Dr. Bhimanagouda S. Patil Office: Centeq building A120; Phone: 979-458-8090
Fax: 979-862-4522 E-Mail: b-patil@tamu.edu

Texas A&M University-College Station-Room: CTQ 120B

Lecture: Tue and Thur 2:00 to 3:30 P.M.
This course will be offered simultaneously on TTVN (Trans Texas Video Network) to three different locations originated from Texas A&M University.

Office Hours: Tue: 4:00 – 5:00 PM or Arranged by appointment, and also through phone and email. Office Location: Centeq Suite A120.

Course Description: HORT 641. Science of Foods for Health (3-0). Credit 3. Provides recent scientific advances on knowledge of foods for health using evidence based research justification; includes interdisciplinary topics emphasizing horticultural science, nutrition and biochemistry. A unique integrated blend of conventional, worldwide web and distance education through TTVN will be used to stimulate and develop thought provoking and critical thinking abilities among students. Prerequisite: Approval of Instructor

Course Outline:

1. Introduction: Linking scientific justifications of foods in human health (1.5 hr)
2. Framing the problem (1.5 hr)
3. Health Benefits of Berries and effect of processing (1.5 hr)
4. Processing effects on bioactives (1.5 hr)
5. Impact of non-thermal processing methods on bioactive compounds (1.5 hr)
6. Biosynthesis and Engineering of Plant Natural Products (1.5 hr)
7. Breeding and Plant Genetics (1.5 hr)
8. Crop management strategies to improve bioactives (cultural, environmental) (1.5 hr)
9. Evidence based justification- cardiovascular diseases (1.5 hr)
10. Development of food based targeted delivery systems for disease prevention (1.5 hr)
11. Berries in cancer prevention (1.5 hr)
12. Carotenoids: Health benefits and bioavailability (1.5 hr)
13. Anthocyanin pigments: Stability, availability, and biotransformation in the gastrointestinal Tract (1.5 hr)
14. Structural and functional relationships-(3.0 hr)

15. Characterization of bioactive compounds (1.5 hr)
16. Learning and educational strategies (1.5 hr)
17. Dietary Supplements (1.5 hr)
18. Nutrition in sports (1.5 hr)
19. Evolution of science to policy (1.5 hr)
20. Student presentations (6 hr)
21. Mid Term Exam Review (1.5 hr)
22. Final exam Review (1.5 hr)

Guest Lectures: Many topics are presented by recognized authorities in the field.

Text: No specific text book; however, the instructor will provide information in web page.

Exams and Grading

Mid Term Exam- Oct 21st, 2014	25 %	25 points
Final Exam- Dec 9th, 2014	30 %	30 points
Term paper and presentation *(Final term paper due by Nov 20th 2014)*	30 %	30 points
Web and class discussion	15 %	15 points
		Total Points = 100 points

Grading Scale: 100 point scale, A=90-100. B=80-89. C=70-79. D=61-70. Your grade will be based on your mathematical average rounded to the next whole number.

Attendance and Make-Up Exams (http://student-rules.tamu.edu/rule07).

Students who miss an exam may be allowed to take a make-up exam, Makeup exams may differ in both form and content from regularly scheduled exam. If you miss the exam you must satisfy all of the following requirements in order to take a makeup exams.

If you missed the exam due to illness or university-excused absence. You must provide a satisfactory documentation explaining the reason for missing test (for example, if you were ill, you must have a written excuse from your physician or from University Health Center).

In cases where advance notification is not feasible (e.g. accident, or emergency) the student must provide notification by the end of the second working day after the absence.

Students who miss the exam and do not meet each of the three requirements above will receive a score of zero for the exam.

Learning Outcome: The student demonstrates knowledge, critical thinking, motivation, and competency in emerging topics in foods for health area. Student's experience in team work will be assessed during the course.

Late Assignments:
Late assignments/term papers are penalized at a rate of 10% loss in points per day late including weekends.

Academic Integrity Statement and Policy.
Aggie Code of Honor http://aggiehonor.tamu.edu/ : "Aggies do not lie, cheat, or steal nor do they tolerate those who do." Students are expected to attend all classes, complete assignments on time, and participate fully in class discussions and group projects. Violations will be handled in accordance with the Texas A&M University Regulations governing academic integrity.

Suggested Inclusions from Speaker of the TAMU Faculty Senate:

Copyright / plagiarism statement:

"The handouts (all materials generated during this course) used in this course are copyrighted. Because these materials are copyrighted, you do not have the right to copy the handouts, unless I expressly grant permission.

As commonly defined, plagiarism consists of passing off as one's own the ideas, words, writings, etc., which belong to another. In accordance with this definition, you are committing plagiarism if you copy the work of another person and turn it in as your own, even if you should have permission of that person. Plagiarism is one of the worst academic sins; for the plagiarist destroys the trust among colleagues without research cannot safely be communicated.

If you have any questions regarding plagiarism, please consult the latest issue of the Texas A&M University Student Rules, under the section "Scholastic Dishonesty".

Americans with Disabilities Act (ADA) Policy Statement:
"The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact Disability Services, in Cain Hall, Room B118, or call 845-1637. For additional information visit http://disability.tamu.edu."

Calendar of Activities

1. Introduction: Linking scientific justifications of foods in human health : September 2, 2014
2. Framing the problem: September 4, 2014
3. Health Benefits of Berries and effect of processing: September 9, 2014
4. Processing effects on bioactives: September 11, 2014
5. Impact of non-thermal processing methods on bioactive compounds: September 16, 2014
6. Biosynthesis and Engineering of Plant Natural Products: September 18, 2014

7. Breeding and Plant Genetics: September 23, 2014
8. Crop management strategies to improve bioactives (cultural, environmental): September 25, 2014
9. Evidence based justification- cardiovascular diseases: September 30, 2014
10. Development of food based targeted delivery systems for disease prevention: October 2, 2014
11. Berries in cancer prevention: October 7, 2014
12. Carotenoids: Health benefits and bioavailability: October 9, 2014
13. Anthocyanin pigments: Stability, availability, and biotransformation in the gastrointestinal Tract: October 14, 2014
14. Mid Evaluation of course/ Review session: October 16, 2014
15. Structural and functional relationships: October 23 & 28, 2014
16. Characterization of bioactive compounds: October 30, 2014
17. Learning and educational strategies: November 4, 2014
18. Student presentations: November 6, 11, 13 & 18, 2014
19. Dietary Supplements: November 20, 2014
20. Nutrition in sports: November 25, 2014
21. Evolution of science to policy: December 2, 2014
22. Final Review: December 4, 2014
23. Final exam: December 9, 2014

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GRADUATE STUDIES

Texas A&M University
Departmental Request for a New Course
Undergraduate ♦ Graduate ♦ Professional

• Submit original form and attach a course syllabus. •

1. This request is submitted by the Department of Plant Pathology & Microbiology
2. Course prefix, number and complete title of course: PLPA 634 Turfgrass Pathology
3. Course description (not more than 50 words): Recognizing turfgrass problems and understanding biological mechanisms in the disease process; principles of disease management strategies
4. Prerequisite(s) _____ Cross-listed with _____
   Cross-listed courses require the signature of both department heads.
5. Is this a variable credit course? ☐ Yes ☑ No If yes, from _____ to _____.
6. Is this a repeatable course? ☐ Yes ☑ No If yes, this course may be taken _____ times. Will the course be repeated within the same semester/term? ☐ Yes ☑ No
7. Has this course been taught as a 289/489/689? ☑ Yes ☐ No If yes, how many times? 2 Indicate the number of students enrolled for each academic period it was taught. _____
8. This course will be:
   a. required for students enrolled in the following degree program(s) (*e.g., B.A. in history*)
   b. an elective for students enrolled in the following degree program(s) (*e.g., M.S., Ph.D. in geography*) BESC, ENST, SCSC, HORT or ENTO or PLPA
9. If other departments are teaching or are responsible for related subject matter, the course must be coordinated with these departments. **Attach approval letters.**
10.

Prefix	Course #	Title (excluding punctuation)
PLPA	634	TURFGRASS PATHOLOGY

Lect.	Lab	SCH	Subject Matter Content Code	Admin. Unit	Acad. Year	FICE Code	Level
03	00	03	2603050002	2318	15-16	003632	6

Approval recommended by:

Head of Department	4.22.14 Date	Chair, College Review Committee	5/21/14 Date
Head of Department (if cross-listed course)	Date	Dean of College	5/21/14 Date
		Dean of College	8-12-14 Date

Submitted to Coordinating Board by:

Director of Academic Support Services	Date	Effective Date

Questions regarding this form should be directed to Sandra Williams at 845-8836.
OAR/AS – 04/07

TEXAS A&M UNIVERSITY

SYLLABUS

Course title and number	Turfgrass Pathology, PLPA 634
Term	Fall semester, 2016
Meeting times and location	Time 9:35-10:50 AM on Tuesday and Thursday, Peterson 208

Course Description

Recognizing of important turfgrass problems and understanding of biological mechanisms in the disease process and principals of disease management strategies.

Prerequisites

No prerequisites are required.

Learning Outcomes

- Students will be able to recognize common turfgrass disease symptoms and signs
- Students will be able to diagnose turfgrass problems with the ability to distinguish between biotic diseases and abiotic disorders
- Students will be able to know the life cycles of the common turfgrass pathogens and how this knowledge translates to the formulation of effective management practices
- Students will be able to appreciate pathogen morphology and entity in multiplication and dispersal
- Students will be able to familiarize turfgrass species and their growth habits, and how this relates to disease development
- Students will be able to understand the interactions among pathogens, turfgrass growth, and environmental conditions
- Students will be able to know IPM strategies for turfgrass including fungicides, cultural practices, host genetics, and biological control agents.

Instructor Information

Name	Young-Ki Jo
Telephone number	979-862-1758
Email address	ykjo@tamu.edu
Office hours	Time 11AM-12PM on Tuesday and Thursday
Office location	Peterson 118C

Textbook

Compendium of Turfgrass Diseases, APS Press, 3rd edition by Richard Smiley, Peter Dernoeden and Bruce Clarke

Graduate Student Requirement

The assignment for graduate students includes writing of a literature review and a fact sheet.

Grading Policies

Letter grades will be assigned based on the accumulation of points earned throughout the semester. Grade will be assigned based on the number of points earned out of a total of 500 as a following scale.

Grade Assigned	Points Earned	Description	Points
A 85%	425-500	Evaluations (2)	200
B 75%	375-424	Final evaluation (in the final week)	100
C 65%	325-374	Quizzes	30
D 60%	300-324	Class attendance	10
		Group activities	10
		Turfgrass disease digital collection	40
		Class presentation (by assignment)	10
		A literature review	50
		A fact sheet	50
		Total points possible	500

Course Topics, Calendar of Activities, Major Assignment Dates

Week	Topic	Required Reading (Compendium of Turfgrass Diseases)
1	Introduction of plant pathology	
1	Overview of turfgrass disease	1-7
2	Why my turf turns brown?	11-16
2	Noninfectious disease	8-11
3	Fungicides	142-145
3	Fungicide resistance	145-146
4	Fungicide resistance	145-146
4	Foliar diseases	17-56
5	**First evaluation**	
5	*Site visit to a golf course*	
6	Foliar diseases	17-56
6	Foliar diseases	17-56
7	Foliar/root/crown diseases	56-88
7	Foliar/root/crown diseases	56-88
8	Foliar/root/crown diseases	56-88
8	Root/crown diseases	88-105
9	Root/crown diseases	88-105
9	Root/crown diseases	
10	**Second evaluation**	
10	*Site visit to a sport field*	88-105
11	Nematode diseases	117-122
11	Viruses and bacteria disease	106-108, 126-129
12	Endophytes	109-110
12	Biological control management	146-147
13	*Turfgrass pathology jeopardy*	
14	Host resistance	139-140
14	Cultural management	140-142
15	**Turfgrass disease digital collection, Literature review, and Fact sheet**	

Class presentations will be conducted from week 5 through week 14. Numbers of presentations per class will depend upon enrollment.

Americans with Disabilities Act (ADA)

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Academic Integrity

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Attendance Policies

There is no attendance requirement.

Make-up Policy:
If an absence is excused, the instructor will either provide the student an opportunity to make up any quiz, exam or other work that contributes to the final grade or provide a satisfactory alternative by a date agreed upon by the student and instructor. If the instructor has a regularly scheduled make up exam, students are expected to attend unless they have a university approved excuse. The make-up work must be completed in a timeframe not to exceed 30 calendar days from the last day of the initial absence. The reasons absences are considered excused by the university are listed below. See Student Rule 7 for details (http://studentrules.tamu.edu/rule07). The fact that these are university-excused absences does not relieve the student of responsibility for prior notification and documentation. Failure to notify and/or document properly may result in an unexcused absence. Falsification of documentation is a violation of the Honor Code.

1) Participation in an activity that is required for a class and appears on the university authorized activity list at https://studentactivities.tamu.edu/app/sponsauth/index
2) Death or major illness in a student's immediate family.
3) Illness of a dependent family member.
4) Participation in legal proceedings or administrative procedures that require a student's presence.
5) Religious holy day. NOTE: Prior notification is NOT required.
6) Injury or illness that is too severe or contagious for the student to attend class.
   a) Injury or illness of three or more class days: Student will provide a medical confirmation note from his or her medical provider within one week of the last date of the absence (see Student Rules 7.1.6.1)
   b) Injury or illness of less than three class days: Student will provide one or both of these (at instructor's discretion), within one week of the last date of the absence: (i.)Texas A&M University Explanatory Statement for Absence from Class form available at http://attendance.tamu.edu or (ii.) Confirmation of visit to a health care professional affirming date and time of visit.
7) Required participation in military duties.
8) Mandatory admission interviews for professional or graduate school that cannot be rescheduled.

Other absences may be excused at the discretion of the instructor with prior notification and proper documentation. In cases where prior notification is not feasible (e.g., accident or emergency) the student must provide notification by the end of the second working day after the absence, including an explanation of why notice could not be sent prior to the class.

Texas A&M University
Departmental Request for a New Course
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GRADUATE STUDIES

Form Instructions

1. Course request type: ☐ Undergraduate ☑ Graduate ☐ First Professional *(ex., DVM, JD, MD, etc.)*
2. Request submitted by *(Department or Program Name)*: Department of Veterinary Physiology and Pharmacology
3. Course prefix, number and complete title of course: VTPP 639 Non-Coding RNAs
4. Catalog course description (not to exceed 50 words):
~~This course will provide students with knowledge related to the~~ Roles of non-coding RNAs in regulating gene expression for physiological functions, development and diseases; ~~it~~ includes a brief history of the field, various categories and definitions of non-coding RNAs, research methodologies and animal models, and break-through advances in clinical applications.

SW

5. Prerequisite(s): Instructor approval

Cross-listed with: _____ Stacked with: VTPP 439

Cross-listed courses require the signature of both department heads.

6. Is this a variable credit course? ☐ Yes ☑ No If yes, from _____ to _____
7. Is this a repeatable course? ☐ Yes ☑ No If yes, this course may be taken _____ times.
   Will this course be repeated within the same semester? ☐ Yes ☑ No
8. Will this course be submitted to the Core Curriculum Council? ☐ Yes ☐ No
9. This course will be:
   a. required for students enrolled in the following degree programs(s) *(e.g., B.A. in history)*
   b. an elective for students enrolled in the following degree program(s) *(e.g., M.S., Ph.D. in geography)*
   B.S, M.S, Ph.D, DVM, M.D in biology, veterinary biology and biomedical related field.
10. If other departments are teaching or are responsible for related subject matter, the course must be coordinated with these departments. **Attach approval letters.**
11. ☑ I verify that I have reviewed the FAQ for *Export Control Basics for Distance Education* (http://vpr.tamu.edu/resources/export-controls/export-controls-basics-for-distance-education).
12.

Prefix	Course #	Title (excluding punctuation)
VTPP	639	Noncoding RNAs

Lect.	Lab	SCH	CIP and Fund Code	Admin. Unit	Acad. Year	FICE Code
03	00	03	26020400 0002	2920	15-16	003632

Level 6

Approval recommended by:

John N. Stallone — 07/11/14
Department Head or Program Chair *(Type Name & Sign)* Date

8-9-14
Chair, College Review Committee Date

Department Head or Program Chair *(Type Name & Sign)* Date
(if cross-listed course)

7-22-14
Dean of College Date

8-12-14
Chair, GC or UCC Date

Submitted to Coordinating Board by:

Associate Director, Curricular Services Date Effective Date

Questions regarding this form should be directed to Sandra Williams at 845-8201 or sandra-williams@tamu.edu.
Curricular Services – 04/14

VTPP 639: Noncoding RNAs in Gene Regulation

Instructors: **Beiyan Zhou ,**
Rajesh Miranda
Instructor: bzhou@cvm.tamu.edu
miranda@medicine.tamhsc.edu

Office Location: **VMRB Room 422B**
Office Phone: **979-845-7175**
Office Hours: **TBA**
Credit Hours: **3**
Meeting Time: **Tuesday and Thursday, 2:00-3:30pm**
Meeting Location: **VMRB Room 423**

Recommended Literatures: Selected periodicals and class notes

Prerequisites: Instructor approval

Course Description: This course will provide graduate students with knowledge of a wide-range of topics related to the epigenetic regulation networks, focusing on the emerging roles of non-coding RNAs in regulating gene expression that are crucial for physiological functions, development and disease development. We will also update the topics reviewing major progress in the field, including a brief history of the field, various categories and definitions of non-coding RNAs, research methodologies and animal models, as well as break-through advances in the area of clinical applications. The course is also designed to stimulate the creative thinking about the biological definitions in the developmental and disease models that are related to non-coding RNA regulatory networks.

Objectives:

1. To understand the essential concepts and major classes of non-coding RNAs
2. To understand the regulatory networks that are involved in non-coding RNAs biogenesis and function
3. To capture the major techniques and their applications and limitations in non-coding RNA research and therapeutic application.
4. To stimulate creative thinking for major unanswered questions and future directions in the field of non-coding RNA research.

Assignments & Grading:

Class Participation 60%
Including: Presentation 40%
Discussions in class 20%

Homework/Quiz 40%
Quiz 10%
one mini-review (not to exceed 5 pages) 30%
Submit at the end of the semester (May 1st, 2015).

Grading Scale: A =90-100
B =80-89
C =70-79
D =60-69
F =0-59

Course Topics: RNA interference, endogenous microRNAs, microRNA biogenesis pathway, regulation of microRNAs in development, small non-coding RNAs, piRNAs, long non coding RNAs, Therapeutic application of RNAi, microRNAs, and long non-coding RNAs

Course Schedule:

The class will be divided into 2 modules.

The first module will be lectures to introduce fundamental knowledge and concepts of non-coding RNAs. Various types of non-coding RNAs will be illustrated in each section. Quizzes will be provided at the end of each section

The second module will be discussion sessions. Selected periodicals will be assigned to students in groups for preparation and presentation.

A non-coding RNAs related mini-review (not exceed 2 pages) will be due at the end of semester.

Americans with Disabilities Act (ADA) Policy statement: The Americans with Disabilities Act (ADA) is a federal antidiscrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact the Department of Student Life, Services for Students with disabilities in Room 126 of the

Koldus Building or call 845-1637.

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For additional information please visit: http://compliance.tamu.edu/CodeConduct.aspx

VTPP 639 Non-coding RNAs

Week 1-Tue	First Meeting about course plan for the semester
Week 1-Thur	Introduction to non-coding
Week 2-Tue	Introduction to non-coding
Week 2-Thur	RNA interference
Week 3-Tue	RNA interference
Week 3-Thur	RNAi applications
Week 4-Tue	microRNAs: Drasha
Week 4-Thur	microRNAs : DGCRs
Week 5-Tue	microRNAs: Exportins
Week 5-Thur	microRNAs: Dicer
Week 6-Tue	microRNAs: RISC formation/ Argonauts
Week 6-Thur	microRNAs: RNA editing
Week 7-Tue	microRNAs: Targeting
Week 7-Thur	microRNAs: Function localization
Week 8-Tue	microRNAs : Function localization
Week 8-Thur	microRNAs : Function localization
Week 9	Spring Break
Week 10-Tue	piRNAs
Week 10-Thur	piRNAs
Week 11-Tue	long-non-coding RNAs
Week 11-Thur	long-non-coding RNAs
Week 12-Tue	long-non-coding RNAs
Week 12-Thur	long-non-coding RNAs
Week 13-Tue	long-non-coding RNAs
Week 13-Thur	long-non-coding RNAs
Week 14-Tue	Other non-coding RNAs and Evolutionary discoveries
Week 14-Thur	Other non-coding RNAs and Evolutionary discoveries
Week 15-Tue	Other non-coding RNAs and Evolutionary discoveries
Week 15-Thur	Open topics

Texas A&M University
Departmental Request for a New Course
Undergraduate ♦ Graduate ♦ Professional

• Submit original form and attach a course syllabus.•

Form Instructions

1. Course request type: ☐ Undergraduate ☑ Graduate ☐ First Professional *(ex., DVM, JD, MD, etc.)*
2. Request submitted by *(Department or Program Name)*: Department of Veterinary Physiology and Pharmacology
3. Course prefix, number and complete title of course: VTPP 650 Stem Cell Biology
4. Catalog course description (not to exceed 50 words):
   ~~This course will provide students with knowledge of a~~ Wide-range of topics related to stem cells and tissue engineering, including a brief history of the field, various categories and definitions of stem cells, research methodologies and animal models, as well as break-through advances in the area of engineered stem cells.

   SW
5. Prerequisite(s): Instructor approval

   Cross-listed with: _____ Stacked with: VTPP 450

   Cross-listed courses require the signature of both department heads.
6. Is this a variable credit course? ☐ Yes ☑ No If yes, from _____ to _____
7. Is this a repeatable course? ☐ Yes ☑ No If yes, this course may be taken _____ times.
   Will this course be repeated within the same semester? ☐ Yes ☑ No
8. Will this course be submitted to the Core Curriculum Council? ☐ Yes ☑ No
9. This course will be:
   a. required for students enrolled in the following degree programs(s) *(e.g., B.A. in history)*

   b. an elective for students enrolled in the following degree program(s) *(e.g., M.S., Ph.D. in geography)*
   B.S, M.S, Ph.D, DVM, M.D in biology, veterinary biology and biomedical related field.
10. If other departments are teaching or are responsible for related subject matter, the course must be coordinated with these departments. **Attach approval letters.**
11. ☑ I verify that I have reviewed the FAQ for *Export Control Basics for Distance Education* (http://vpr.tamu.edu/resources/export-controls/export-controls-basics-for-distance-education).
12.

Prefix	Course #	Title (excluding punctuation)
VTPP	650	Stem Cell Biology

Lect.	Lab	SCH	CIP and Fund Code	Admin. Unit	Acad. Year	FICE Code
03	00	03	260406000	2920	15-16	003632

Level 6

Approval recommended by:

John N. Stallone — 07/11/14
Department Head or Program Chair *(Type Name & Sign)* Date

Department Head or Program Chair *(Type Name & Sign)* Date
(if cross-listed course)

Submitted to Coordinating Board by:

Associate Director, Curricular Services

Chair, College Review Committee — 8-9-14 Date

Dean of College — 7-22-14 Date

Chair, GC or UCC — 8-12-14 Date

Date Effective Date

Questions regarding this form should be directed to Sandra Williams at 845-8201 or sandra-williams@tamu.edu.

VTPP 650: Stem Cell Biology

Instructors: **Beiyan Zhou , Rajesh Miranda**
Instructor: bzhou@cvm.tamu.edu
miranda@medicine.tamhsc.edu
Office Location: **VMRB Room 422B**
Office Phone: **979-845-7175**
Office Hours: **TBA**
Credit Hours: **3**
Meeting Time: **Tuesday and Thursday, 2:00pm-3:30pm**
Meeting Location: **VMRB Room 423**

Recommended Texts and Materials: Selected periodicals and class notes.

Prerequisites: Instructor approval

Course Description: This course will provide graduate students with knowledge of a wide-range of topics related to stem cells and tissue engineering. We will also update the topics reviewing major progress in the field, including a brief history of the field, various categories and definitions of stem cells, research methodologies and animal models, as well as break-through advances in the area of engineered stem cells. The specific properties of each type of stem cells and their potential applications in the clinical and research context will be discussed in class. The course is also designed to stimulate the creative thinking about the biological definitions in the developmental and disease models that are related to stem cells.

Objectives:
1. To understand the essential concepts and update the novel ideas about stem cells, including stem cell categories, self-renewal, and potency.
2. To understand the regulatory networks that are involved in stem cell function, involving matter regulatory genes, interactive pathways, and other regulatory factors.
3. To capture the major techniques and their applications and limitations in stem cell research and therapeutic application.
4. To stimulate creative thinking for major unanswered questions and future directions in the field of stem cell research.

Assignments & Grading:

Class Participation 60%
- Including: Presentation 40%
- Discussions in class 20%

Homework/Projects 40%

One mini-proposal (not to exceed 5 pages) or a short assay examine
Submit at the end of the semester.

Guideline for mini-proposal:
Prepare 3-5 pages (double spaced, font: Arial 11) on a topic related to stem

cell research:
Proposal Title
Introduction
Rationale and Significance
Research Methods
Pitfall and limitations
Reference (not included in the page limit

Grading Scale: A =90-100
B =80-89
C =70-79
D =60-69
F =0-59

Course Topics: General Embryology; Major cell classes and introduction to tissue differentiation; organ development; Types of Stem cells (embryonic fetal adult engineered); Hematopoiesis as a model system for stem cell function; tissue repair and regeneration; Cancer stem cells

Course Schedule: The class will be divided into 2 modules.

The first module will be lectures to introduce essential knowledge and concepts of stem cells, including a brief history about stem cell research, categories and properties of various types of stem cells, technology advances for stem cell engineering and application in both clinical and research fields.

The second module will be literature discussion by groups: selected periodicals will be assigned to students in groups for preparation and presentation. Each student will submit a mini-review of a topic related to stem cell research by the end of semester.

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For additional information please visit: http://compliance.tamu.edu/CodeConduct.aspx

VTPP-650 Stem Cell Biology

Week 1 Tue	First Meeting about course plan for the semester
Week 1 Thur	Introduction to Stem Cell Biology /Resources I
Week 2 Tue	Introduction to Stem Cell Biology /Resources I
Week 2 Thur	Introduction to Stem Cell Biology /Resources I
Week 3 Tue	Embryology and Tissue Differentiation
Week 3 Thur	Model system, hematopoiesis
Week 4 Tue	Signaling in stem cell niche
Week 4 Thur	Epigenetic regulation
Week 5 Tue	Tissue Engineering
Week 5 Thur	Embryonic Stem Cell/Cloning-1
Week 6 Tue	Embryonic Stem Cell/Cloning-2
Week 6 Thur	Embryonic Stem Cell/Cloning -3
Week 7 Tue	Embryonic Stem Cell/Cloning -4
Week 7 Thur	Adult/Fetal/Tissue Stem Cells-1
Week 8 Tue	Adult/Fetal/Tissue Stem Cells-2
Week 8 Thur	Adult/Fetal/Tissue Stem Cells-3
Week 9	Spring Break
Week 10 Tue	Adult/Fetal/Tissue Stem Cells-4
Week 10 Thur	Regenerative/Tissue Engineering-1
Week 11 Tue	Regenerative/Tissue Engineering-2
Week 11 Thur	Regenerative/Tissue Engineering-3
Week 12 Tue	Regenerative/Tissue Engineering-4
Week 12 Thur	Induced Pluripotent Stem Cells-1
Week 13 Tue	Induced Pluripotent Stem Cells-2
Week 13 Thur	Induced Pluripotent Stem Cells-3
Week 14 Tue	Induced Pluripotent Stem Cells-4
Week 14 Thur	Cancer Stem Cells-1
Week 15 Tue	Cancer Stem Cells-2
Week 15 Thur	Cancer Stem Cells-3
Week 16 Tue	Cancer Stem Cells-4