

Cover Sheet: Request 10753

ANS4XXX

Info

Process	Course New Ugrad/Pro
Status	Pending
Submitter	Tenbroeck,Saundra Hodge sht@ufl.edu
Created	2/4/2016 5:05:33 PM
Updated	3/14/2016 8:44:21 AM
Description	This course examines the underlying mechanisms and inheritance of a number of traits in the horse. Concepts covered will include the impact of domestication on the genome, relationships between breeds, coat color, genetic disease and complex traits of performance and behavior.

Actions

Step	Status	Group	User	Comment	Updated
Department	Approved	CALS - Animal Sciences 514909000	Tenbroeck, Saundra Hodge		2/4/2016
No document changes					
College	Approved	CALS - College of Agricultural and Life Sciences	Brendemuhl, Joel H	Approved by CALS CC 2-12-16	2/19/2016
Deleted Equine Genetics Syllabus 2015V2.pdf					2/4/2016
Deleted ANS 4932 - NEW - Equine Genetics Syllabus 2016 UG only.docx					2/19/2016
Deleted ANS 4932 - NEW - Equine Genetics Syllabus 2016 UG only.docx					2/19/2016
University Curriculum Committee	Comment	PV - University Curriculum Committee (UCC)	Case, Brandon	Added to the March agenda.	2/22/2016
No document changes					
University Curriculum Committee	Pending	PV - University Curriculum Committee (UCC)			2/22/2016
No document changes					
Statewide Course Numbering System					
No document changes					
Office of the Registrar					
No document changes					
Student Academic Support System					
No document changes					
Catalog					
No document changes					
College Notified					
No document changes					

Course|New for request 10753

Info

Request: ANS4XXX

Submitter: Tenbroeck,Saundra Hodge sht@ufl.edu

Created: 2/19/2016 4:10:18 PM

Form version: 4

Responses

Recommended Prefix

Enter the three letter code indicating placement of course within the discipline (e.g., POS, ATR, ENC). Note that for new course proposals, in rare cases SCNS will assign a different prefix.

Response:

ANS

Course Level

Select the one digit code preceding the course number that indicates the course level at which the course is taught (e.g., 1=freshman, 2=sophomore, etc.).

Response:

4

Number

Enter the three digit code indicating the specific content of the course based on the SCNS taxonomy and course equivalency profiles. For new course requests, this may be XXX until SCNS assigns an appropriate number.

Response:

XXX

Lab Code

Enter the lab code to indicate whether the course is lecture only (None), lab only (L), or a combined lecture and lab (C).

Response:

None

Course Title

Enter the title of the course as it should appear in the Academic Catalog.

Response:

Equine Genetics

Transcript Title

Enter the title that will appear in the transcript and the schedule of courses. Note that this must be limited to 21 characters (including spaces and punctuation).

Response:
Equine Genetics

Effective Term

Select the requested term that the course will first be offered. Selecting "Earliest" will allow the course to be active in the earliest term after SCNS approval. If a specific term and year are selected, this should reflect the department's best projection. Courses cannot be implemented retroactively, and therefore the actual effective term cannot be prior to SCNS approval, which must be obtained prior to the first day of classes for the effective term. SCNS approval typically requires 2 to 6 weeks after approval of the course at UF.

Response:
Summer

Effective Year

Select the requested year that the course will first be offered. See preceding item for further information.

Response:
2016

Rotating Topic?

Select "Yes" if the course will have rotating (varying) topics in different terms. For rotating topics courses, the course title in the Schedule of Courses and the transcript can vary with the topic.

Response:
No

Amount of Credit

Select the number of credits awarded to the student upon successful completion, or select "Variable" if the course will be offered with variable credit and then indicate the minimum and maximum credits per section. Note that credit hours are regulated by Rule 6A-10.033, FAC. If you select "Variable" for the amount of credit, additional fields will appear in which to indicate the minimum and maximum number of total credits.

Response:
2

Repeatable Credit?

Select "Yes" if the course may be repeated for credit. Some courses, such as independent study courses, will have rotating (variable) topics. Students may be allowed to repeat these courses provided the content is different.

Response:

No

S/U Only?

Select "Yes" if all students should be graded as S/U in the course. Note that each course must be entered into the UF curriculum inventory as letter-graded or S/U. A course may not have both options. However, letter-graded courses allow students to take the course S/U with instructor permission.

Response:

No

Contact Type

Select the best option to describe course contact type. This selection determines whether base hours or headcount hours will be used to determine the total contact hours per credit hour. Note that the headcount hour options are for courses that involve contact between the student and the professor on an individual basis.

Response:

Regularly Scheduled

- Regularly Scheduled [base hr]
- Thesis/Dissertation Supervision [1.0 headcount hr]
- Directed Individual Studies [0.5 headcount hr]
- Supervision of Student Interns [0.8 headcount hr]
- Supervision of Teaching/Research [0.5 headcount hr]
- Supervision of Cooperative Education [0.8 headcount hr]

Contact the Office of Institutional Planning and Research (352-392-0456) with questions regarding contact type.

Degree Type

Select the type of degree program for which this course is intended.

Response:

Baccalaureate

Weekly Contact Hours

Indicate the number of hours faculty will have contact with students each week on average throughout the duration of the course.

Response:

2

Category of Instruction

Indicate whether the course is introductory, intermediate or advanced. Introductory courses are those that require no prerequisites and are general in nature. Intermediate courses require some

prior preparation in a related area. Advanced courses require specific competencies or knowledge relevant to the topic prior to enrollment.

Response:
Advanced

- 1000 and 2000 level = Introductory undergraduate
- 3000 level = Intermediate undergraduate
- 4000 level = Advanced undergraduate
- 5000 level = Introductory graduate
- 6000 level = Intermediate graduate
- 7000 level = Advanced graduate

4000/5000 and 4000/6000 levels = Joint undergraduate/graduate (these must be approved by the UCC and the Graduate Council)

Delivery Method(s)

Indicate all platforms through which the course is currently planned to be delivered.

Response:
On-Campus

Course Description

Provide a brief narrative description of the course content. This description will be published in the Academic Catalog and is limited to 50 words or fewer. See course description guidelines.

Response:
This course examines the underlying mechanisms and inheritance of a number of traits in the horse. Concepts covered will include the impact of domestication on the genome, relationships between breeds, coat color, genetic disease and complex traits of performance and behavior.

Prerequisites

Indicate all requirements that must be satisfied prior to enrollment in the course. Prerequisites will be automatically checked for each student attempting to register for the course. The prerequisite will be published in the Academic Catalog and must be formulated so that it can be enforced in the registration system. Please note that upper division courses (i.e., intermediate or advanced level of instruction) must have proper prerequisites to target the appropriate audience for the course.

Response:
ANS3384 or equivalent

Completing Prerequisites on UCC forms:

- Use "&" and "or" to conjoin multiple requirements; do not use commas, semicolons, etc.
- Use parentheses to specify groupings in multiple requirements.
- Specifying a course prerequisite (without specifying a grade) assumes the required passing grade is D-. In order to specify a different grade, include the grade in parentheses immediately after the course number. For example, "MAC 2311(B)" indicates that students are required to obtain a grade of B in Calculus I. MAC2311 by itself would only require a grade of D-.
- Specify all majors or minors included (if all majors in a college are acceptable the college code is sufficient).

- "Permission of department" is always an option so it should not be included in any prerequisite or co-requisite.

*Example: A grade of C in HSC 3502, passing grades in HSC 3057 or HSC 4558, and major/minor in PPHP should be written as follows:
HSC 3502(C) & (HSC 3057 or HSC 4558) & (HP college or (HS or CMS or DSC or HP or RS minor))*

Co-requisites

Indicate all requirements that must be taken concurrently with the course. Co-requisites are not checked by the registration system.

Response:

No co-requisites are required.

Rationale and Placement in Curriculum

Explain the rationale for offering the course and its place in the curriculum.

Response:

Translation of recent discoveries in genomics and genome-assisted selection has lagged in certain agricultural industries, horse husbandry in particular. This course is designed to supplement basic genetic principles taught in the Genetic Improvement of Farm Animals and AGR Genetics courses; expanding knowledge of modern genetic analysis, and providing practical tools for genetic evaluation of domesticated equines. The course is an elective, aimed at our equine sciences students within the Animal Sciences major.

Course Objectives

Describe the core knowledge and skills that student should derive from the course. The objectives should be both observable and measurable.

Response:

At the conclusion of this course students will have the ability to:

1. Use the principles of inheritance to predict phenotype, based on genotype.
2. Evaluate pedigree records for genetic health as well as marketability.
3. Describe the symptoms and implications of genetic disease in the horse.
4. Understand the complexity of genetic diversity, breeds and registries.
5. Advantageously utilize available genetic tests to plan a breeding program.

Course Textbook(s) and/or Other Assigned Reading

Enter the title, author(s) and publication date of textbooks and/or readings that will be assigned, or a representative list of readings.

Response:

Title: HORSE GENETICS, SECOND EDITION

Authors: BAILEY AND BROOKS

Published: 2015

ISBN: 9781845936754,

Weekly Schedule of Topics

Provide a projected weekly schedule of topics. This should have sufficient detail to evaluate how the course would meet current curricular needs and the extent to which it overlaps with existing courses at UF.

Response:

Introduction– Basic Mendelian Genetics
Horse Genomics, Coat Color (Black, Bay, Chestnut)
Coat color (Tobiano, White, Sabino, Roan), Diluting Genes
Coat color (Gray, Overo, Leopard Spotting)
Gait, and other interesting things!
Parentage Testing
Finish Parentage Testing,
Genetic Diseases Part I
Genetic Diseases Part II
Karyotyping and Chromosomal Abnormalities
Performance Genetics
Pedigree Analysis
Non-Mendelian Inheritance: Mitochondrial, Epigenetics, Incomplete Penetrance, Y chromosomes
Evolution and Domestication
Population Genetics and Genetic Nature of Breeds

Grading Scheme

List the types of assessments, assignments and other activities that will be used to determine the course grade, and the percentage contribution from each. This list should have sufficient detail to evaluate the course rigor and grade integrity.

Response:

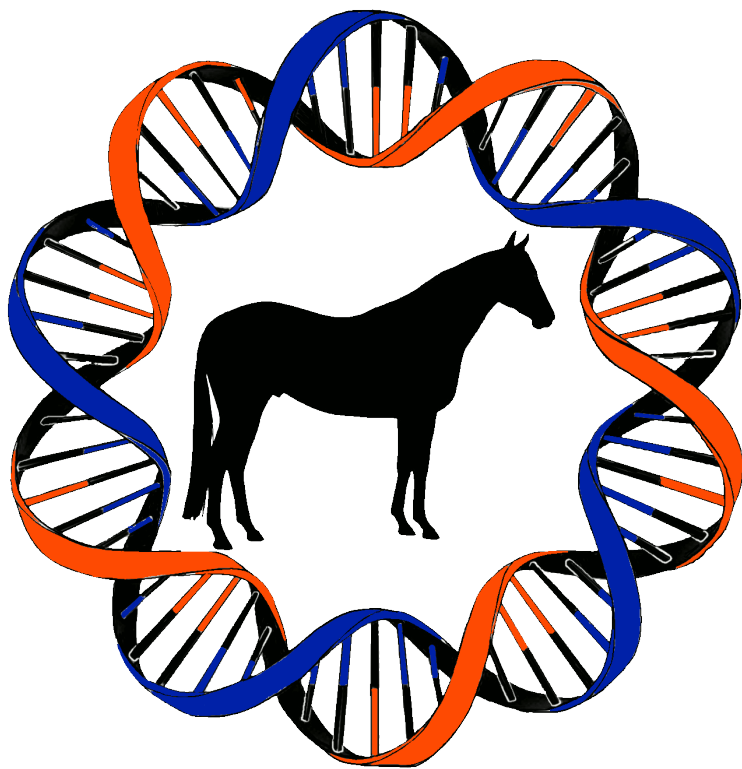
40%- Exams, one Mid-term and one Final
Each exam comprises approximately 50 questions, multiple choice, true/false, short answer, and mini essay. Though not strictly cumulative, concepts on the final will build on what's presented early in the semester.
40%- In-class Assignments
Classes 12-14 will include analysis of current research papers, guest presentations and dry-lab activities.
20%- Quizzes
14, given at the beginning of each class, 5-10 questions covering background information presented in the assigned readings.

Instructor(s)

Enter the name of the planned instructor or instructors, or "to be determined" if instructors are not yet identified.

Response:

Samantha Brooks



EQUINE GENETICS

ANS 4XXX

2 credits

OVERVIEW

The art of horse breeding has shaped equine genetics since domestication, yet most horse professionals have little understanding of the fundamentals of the genome. We will examine the underlying mechanisms and inheritance of the diverse traits in the horse and other equids. Concepts covered will include the impact of domestication on the genome, relationships between breeds, coat color, genetic disease and complex traits of performance and behavior.

Instructor: Samantha Brooks PhD

Location:

Rm. 201, Bldg. 499 Dairy Sciences

Time:

3-4th Per. F, 9:35-11:30am

Prerequisites:

ANS3384 or equivalent

Office Hours:

11:30am- 12:30am Fridays OR

By Appointment

Course Description

This course examines the underlying mechanisms and inheritance of a number of traits in the horse. Concepts covered will include the impact of domestication on the genome, relationships between breeds, coat color, genetic disease and complex traits of performance and behavior.

Objectives

Basic genetics concepts including inheritance, pedigrees, coat color, performance traits, and diseases with a specific focus on examples and current issues as they relate to the horse. At the conclusion of this course students will have the ability to:

1. Use the principles of inheritance to predict phenotype, based on genotype.
2. Evaluate pedigree records for genetic health as well as marketability.
3. Describe the symptoms and implications of genetic disease in the horse.
4. Understand the complexity of genetic diversity, breeds and registries.
5. Advantageously utilize available genetic tests to plan a breeding program.

Textbook

Title: HORSE GENETICS, SECOND EDITION, ISBN: 9781845936754, Authors: BAILEY AND BROOKS

Course Communication

Course materials and messages will be hosted on our Canvas e-Learning site. Some assignments and assessments will only be accepted through Canvas. Email can be sent either through the Canvas system, or the standard ufl.edu system. Please be sure you change your canvas settings so that you receive course announcements quickly, not once a week, so that you get messages on time! Keep in mind that while email is fast and simple, you should always use a courteous and professional attitude when communicating with your instructors.

Course credit and assessments

40%- Exams, one Mid-term and one Final

Each exam comprises approximately 50 questions, multiple choice, true/false, short answer, and mini essay. Though not strictly cumulative, concepts on the final will build on what's presented early in the semester.

40%- In-class Assignments

Classes 12-14 will include analysis of current research papers, guest presentations and dry-lab activities.

20%- Quizzes

14, given at the beginning of each class, 5-10 questions covering background information presented in the assigned readings.

Grading Scale

Percentage	Letter	Points
93-100%	A	4.0
90- 92.9%	A-	3.67
87-89.9%	B+	3.33
83-86.9%	B	3.0
80-82.9%	B-	2.67
77-79.9%	C+	2.33
73-76.9%	C	2.0
70-72.9%	C-	1.67
67-69.9%	D+	1.33
63-66.9%	D	1.0
60-62.9%	D-	0.67
<60%	E	0



For additional information on current UF policies for assigning grade points, see <https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>

Cell Phone, Laptops and Other Technology

As representatives of this class, our department and our university you are expected to dress, and to act, in a professional manner at all times. **Cell phones must remain silenced** and stored during class and labs unless specifically permitted for an activity or assignment. Please consult with the instructor before class if you are expecting any urgent communication by cell phone.

Use of laptops, tablets, and internet connected devices is encouraged during specific sessions in this course. However, these devices do come with social responsibility. Students are expected to keep sounds turned off, not to distract those around them, and most of all to limit “multitasking” activities that will distract themselves (ie email and facebook) and classmates.

Attendance and Make-Up Work

This course requires active participation, hands-on labs and discussion with your peers. As such attendance is imperative.

University policies for class attendance and make-up exams, assignments and other work can be found at: <https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>.

It is your personal responsibility to obtain information presented in class. Documentation of approved absences (personal illness, family emergency etc.) must be presented within 5 days of returning from absence for arrangements to be made to make-up quizzes and assignments. If possible, please disclose University approved absences **two weeks** in advance. Unexcused late assignments will be penalized 25% for the first 24 hours beyond the due date, 50% for 24-48hrs late and will not be accepted thereafter.

Online Course Evaluation Process:

Student assessment of instruction is an important part of efforts to improve teaching and learning. At the end of the semester, students are expected to provide feedback on the quality of instruction in this course using a standard set of university and college criteria. These evaluations are conducted online at <https://evaluations.ufl.edu>.

Evaluations are typically open for students to complete during the last two or three weeks of the semester; students will be notified of the specific times when they are open. Summary results of these assessments are available to students at <https://evaluations.ufl.edu/results>.



Academic Integrity and Plagiarism:

As a student at the University of Florida, you have committed yourself to uphold the Honor Code, which includes the following pledge: *"We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity."* You are expected to exhibit behavior consistent with this commitment to the UF academic community, and on all work submitted for credit at the University of Florida, the following pledge is either required

or implied: *"On my honor, I have neither given nor received unauthorized aid in doing this assignment."*

It is assumed that you will complete all work independently in each course unless the instructor provides explicit permission for you to collaborate on course tasks (e.g. assignments, papers, quizzes, exams). Furthermore, as part of your obligation to uphold the Honor Code, you should report any condition that facilitates academic misconduct to appropriate personnel. It is your individual responsibility to know and comply with all university policies and procedures regarding academic integrity and the Student Honor Code. Violations of the Honor Code at the University of Florida will not be tolerated. Violations will be reported to the Dean of Students Office for consideration of disciplinary action. For more information regarding the Student Honor Code, please see: <http://www.dso.ufl.edu/sccr/process/student-conduct-honor-code>.

Software Use

All faculty, staff and students of the university are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against university policies and rules, disciplinary action will be taken as appropriate.

Services for Students with Disabilities

The Disability Resource Center coordinates the needed accommodations of students with disabilities. This includes registering disabilities, recommending academic accommodations within the classroom, accessing special adaptive computer equipment, providing interpretation services and mediating faculty-student disability related issues. Students requesting classroom accommodation must first register with the Dean of Students Office. The Dean of Students Office will provide documentation to the student who must then provide this documentation to the Instructor when requesting accommodation

0001 Reid Hall, 352-392-8565, www.dso.ufl.edu/drc/

Campus Helping Resources

Students experiencing crises or personal problems that interfere with their general well-being are encouraged to utilize the university's counseling resources. The Counseling & Wellness Center provides confidential counseling services at no cost for currently enrolled students. Resources are available on campus for students having personal problems or lacking clear career or academic goals, which interfere with their academic performance.

- *University Counseling & Wellness Center, 3190 Radio Road, 352-392-1575, www.counseling.ufl.edu/cwc/ Counseling Services, Groups and Workshops, Outreach and Consultation, Self-Help Library, Wellness Coaching*
- *U Matter We Care, www.umatter.ufl.edu/*
- *Career Resource Center, First Floor JWRU, 392-1601, www.crc.ufl.edu/*

University of Florida Complaints Policy

The University of Florida believes strongly in the ability of students to express concerns regarding their experiences at the University. The University encourages its students who wish to file a written complaint to submit that complaint directly to the department that manages that policy. A student who is unsure as to the official responsible for handling his or her particular complaint may contact the Ombuds office or the Dean of Students Office. For complaints that are not satisfactorily resolved at the department level or which seem to be broader than one department, students are encouraged to submit those complaints to one of the following locations:

- Ombuds: <http://www.ombuds.ufl.edu/>, 31 Tigert Hall, 352-392-1308

The purpose of the Ombuds office is to assist students in resolving problems and conflicts that arise in the course of interacting with the University of Florida. By considering problems in an unbiased way, the Ombuds works to achieve a fair resolution and works to protect the rights of all parties involved.

- Dean of Students Office: <http://www.dso.ufl.edu/>, 202 Peabody Hall, 352-392-1261

The Dean of Students Office works with students, faculty, and families to address a broad range of complaints either through directly assisting the student involved to resolve the issue, working with the student to contact the appropriate personnel, or referring the student to

resources or offices that can directly address the issue. Follow up is provided to the student until the situation is resolved.

- Additionally, the University of Florida regulations provide a procedure for filing a formal grievance in Regulation 4.012: <http://regulations.ufl.edu/regulations/uf-4-student-affairs/>

Course Schedule (subject to adjustment for special topics and guest speakers.)

<i>DATE</i>	<i>Class Topic</i>	<i>Activity</i>	<i>Chapters</i>
1/8	Introduction– Basic Mendelian Genetics	Genetics pre-test and web hunt DNA sampling from hair.	2
1/15	Horse Genomics, Coat Color (Black, Bay, Chestnut)	Genotype to phenotype. DNA extraction.	3&4
1/22	Coat color (Tobiano, White, Sabino, Roan), Diluting Genes	Dilution Case Studies	5&6
1/29	Coat color (Gray, Overo, Leopard Spotting)	Spot the Spotting Genes	7,8 & 9
2/5	Gait, and other interesting things!	Stack the Deck: Segregation of Alleles	19
2/12	Parentage Testing	Who's the daddy?	11
2/19	Finish Parentage Testing, Genetic Diseases Part I	Mid-term review	12
2/26	Genetic Diseases Part II	MIDTERM EXAM	-
3/4	No class – Spring Break	No class – Spring Break	-
3/11	Karyotyping and Chromosomal Abnormalities	The Chromosomes Puzzle	13
3/18	Performance Genetics	Bred for speed...	14
3/25	Pedigree Analysis	Pedigree construction and Inbreeding, What's in a "nick"?	15
4/1	Non-Mendelian Inheritance: Mitochondrial, Epigenetics, Incomplete Penetrance, Y chromosomes	Find the clone...	16
4/8	Evolution and Domestication	Who dunnit?	1&18
4/15	Population Genetics and Genetic Nature of Breeds	Final Review Session	17
4/27	FINAL EXAM 12:30-2PM	(Material since MIDTERM)	