

FRANCIS MARION UNIVERSITY: DESCRIPTION OF PROPOSED NEW COURSE or MODIFICATION OF AN EXISTING COURSE

Check the appropriate box: ☒ New Course ☐ Course Modification

Department/School: History Department Date 12/2/2020

Course No. or Level: HIST 315 Title America in the 1960s

Semester hours 3 Clock hours: Lecture X Laboratory

Prerequisites: One 100-level history course or permission of department is prerequisite to all history courses above the 299 level.

Enrollment expectation: 6-20 students

Indicate any course for which this course is a (an)

modification
(proposed change in course title, course description, course content or method of instruction)

substitute
(The proposed new course replaces a deleted course as a General Education or program requirement.)

alternate
(The proposed new course can be taken as an alternate to an existing course.)

Name of person preparing course description: Dr. Jason R. Kirby

Department Chairperson's/Dean's Signature

Provost's Signature Peter King

Date of Implementation

Date of School/Department approval

Catalog description:

- Purpose:
1. For Whom (generally?) This course is for history majors, history minors, and for those interested in this content for a course elective.
 2. What should the course do for the student? In short, this course will provide students with a comprehensive and nuanced understanding of one of the most pivotal decades in United States history. (See the second paragraph under the teaching method section below for further details).

Teaching method planned:

This course will broaden students' perspectives of this tense but critical decade of American history. Throughout the semester, this course will additionally contribute, through written assignments, discussions, and digital interactions, to the development of analytical and communication skills. Exams, papers, quizzes, online assignments, outlines, and in-class discussions will measure the degree to which these objectives are achieved.

My primary objective is to ensure that students recognize the complexity of the world by seeing the competing voices within history. A typical class will consist of a combination of lecture and discussion, and my chief emphasis will be getting students to decipher the nuances inherent in notable historical topics and events. While doing so, I will display enthusiasm and facilitate discussion points that initiate student participation for the benefit of the overall learning community. Then, attempting to make such events germane to contemporary citizens by getting students to become engaged participants in their learning, I will often prompt students to place themselves within the historical period in question so they can imagine how they would maneuver or respond under such historical circumstances and constraints. In addition to enhancing students' writing abilities, I would also encourage them to think independently rather than adhere to any form of mainstream dogma. That said, students should provide solid evidence and sophisticated analysis in their respective positions for me to deem it high quality work. Hopefully, this technique will enhance student debating skills and overall understanding of human nature, each of which will assist students in the career path they choose.

Textbook and/or materials planned (including electronic/multimedia):

1. Isserman, Maurice and Michael Kazin, *America Divided: The Civil War of the 1960s*, 6th Edition
ISBN: 9780190077846



Supplementary Readings:

2. Ward, Brian, ed., *The 1960s: A Documentary Reader*, 1st Edition
ISBN: 9781405163309



3. Miller, Timothy S., *The Hippies and American Values*, 2nd Edition
ISBN: 9781572338173



4. Additional articles via the Francis Marion University Library electronic resources (JSTOR, especially):

I. "The Summer of Love and Protest: Transatlantic Counterculture in the 1960s" by Russell Duncan in *The Transatlantic Sixties* with editors

II. "'Law and Order' at Large: The New York Civilian Review Board Referendum of 1966 and the Crisis of Liberalism" by Michael W. Flamm in *The Historian*

III. "Women, Domesticity, and Postwar Conservatism" by Michelle Nickerson in the *Organization of American History Magazine of History*

IV. "TV's 1968: War, Politics, and Violence on the Network Evening News" by Chester J. Pach, Jr. in *South Central Review*

V. "Women's Liberation: Seeing the Revolution Clearly" by Sara M. Evans in *Feminist Studies*

VI. "Protest Movements in the 1970s: The Long 1960s" by Simon Hall in *Journal of Contemporary History*

VII. “‘Our Worst Enemy Seems to Be the Press’: TV News, the Nixon Administration, and U.S. Troop Withdrawal from Vietnam, 1969-1973” by Chester Pach, Jr. in *Diplomatic History*

VIII. “Was the Civil Rights Movement Successful? Tracking and Understanding Black Views” by Wayne A. Santoro in *Sociological Forum*

IX. “Beyond the Dominant Narrative: The Ongoing Struggle For Civil Rights in the U.S. South, 1968-1980” by Timothy J. Minchin in *Australian Journal of American Studies*

X. “‘Family Values’ and the Formation of a Christian Right Agenda” by Seth Dowland in *Church History*

Documentaries (in part or in total, as indicated in the syllabus schedule of events)

1. *The Fog of War* (the Cuban Missile Crisis and the Legacy of the Vietnam War)
2. *American Experience: 1964* (about this critical year after John F. Kennedy’s death and before America’s escalation in Vietnam)
3. *Feast of Friends* (a short *cinéma vérité* on the musical group, *The Doors*, that reveals the powerful influence of 1960s rock music)
4. *American Experience: Citizen King* (an excerpt on the civil rights turn to the northern campaign in Chicago)
5. *American Experience: Summer of Love* (this documentary coincides with the supplementary book assigned for the course)
6. *American Experience: Two Days in October* (this is a classic documentary that captures the home front and war front tensions based on two tragic days in October of 1967)
7. *American Experience: RFK* (an excerpt on Robert F. Kennedy’s 1968 presidential bid and eventual tragic assassination)
8. *American Experience: Stonewall Uprising* (an excerpt on the famous uprising that became a watershed moment for the gay rights movement)
9. *American Experience: Woodstock: Three Days that Defined a Generation* (the documentary captures perhaps the most important three days in post-World War II music history)

Course Content: This course will examine the various historical developments that arose during one of America’s most polarizing and transformative decades. Topics ranging from the Vietnam War, the civil rights movement, the assorted countercultural trends and influences, the women’s movement, and the conservative backlash forces will receive in-depth coverage. Moreover, understanding the leadership approach and policy decisions of Presidents John F. Kennedy, Lyndon B. Johnson, and Richard Nixon as well as the influential dominance of popular culture on citizens’ social, cultural, and political attitudes will provide a foundational lens into the decade’s history.

The syllabus for this course will be included as an attachment.

History 318 (3 Credit Hours)---All classes M/W schedule
Historical Focus: America in the 1960s
Spring 2021

Professor: Jason R. Kirby, Ph.D.

Classroom: Founders Hall 213A—2:30-3:45 PM;
and University-mandated online teaching if necessary.

Office: Founders Hall 211

E-mail: jason.kirby@fmarion.edu

Office Hours: Monday and Weds. 1:20-2:20; Walk-in appointments are welcome. ***All students visiting my office must wear a mask for the duration of your time in my office.** Note: Office hours are subject to change throughout the semester.

Objectives/Goals: This course will examine the various historical developments that arose during one of America's most polarizing and transformative decades. Topics ranging from the Vietnam War, the civil rights movement, the assorted countercultural trends and influences, the women's movement, and the conservative backlash forces will receive in-depth coverage. Moreover, understanding the leadership approach and policy decisions of Presidents John F. Kennedy, Lyndon B. Johnson, and Richard Nixon as well as the influential dominance of popular culture on citizens' social, cultural, and political attitudes will provide a foundational lens into the decade's history.

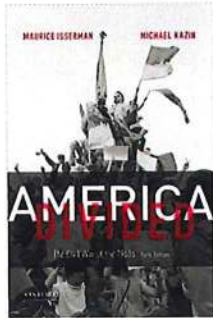
Ultimately, this course will broaden students' perspectives of this tense but critical decade of American history. Throughout the semester, this course will additionally contribute, through written assignments, discussions, and digital interactions, to the development of analytical and communication skills. Exams, papers, quizzes, online assignments, outlines, and in-class discussions will measure the degree to which these objectives are achieved.

My primary objective is to ensure that students recognize the complexity of the world by seeing the competing voices within history. A typical class will consist of a combination of lecture and discussion, and my chief emphasis will be getting students to decipher the nuances inherent in notable historical topics and events. While doing so, I will display enthusiasm and facilitate discussion points that initiate student participation for the benefit of the overall learning community. Then, attempting to make such events germane to contemporary citizens by getting students to become engaged participants in their learning, I will often prompt students to place themselves within the historical period in question so they can imagine how they would maneuver or respond under such historical circumstances and constraints. In addition to enhancing students' writing abilities, I would also encourage them to think independently rather than adhere to any form of mainstream dogma. That said, students should provide solid evidence and sophisticated analysis in their respective positions for me to deem it high quality work. Hopefully, this technique will enhance student debating skills and overall understanding of human nature, each of which will assist students in the career path they choose.

Required Readings:

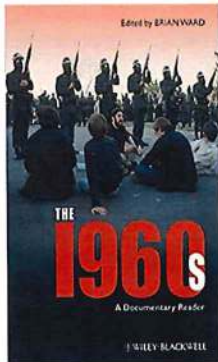
Textbook:

Isserman, Maurice and Michael Kazin, *America Divided: The Civil War of the 1960s*, 6th Edition
ISBN: 9780190077846

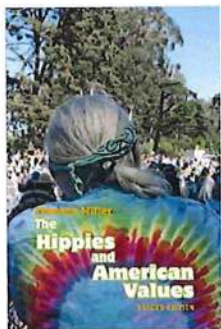


Supplementary Readings:

Ward, Brian, ed., *The 1960s: A Documentary Reader*, 1st Edition
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Miller, Timothy S., *The Hippies and American Values*, 2nd Edition
ISBN: 9781572338173



Note on the Textbook: It is highly recommended that you keep up with the readings in the textbook (assigned by the week under the important class schedule below) to help support your understanding of my lectures and discussions. The textbook will provide you with the background you need to better understand the events and themes discussed in class and should help you make historical connections when you take tests. My hope is that you will follow the suggested reading schedule as outlined in the syllabus. Additionally, you must have access to PowerPoint presentations with audio for online lectures and videos if Francis Marion University reverts to all online classes.

Supplementary Readings: All students are required to complete the supplementary readings by the scheduled date and will be expected to participate in class discussions of these readings, of which will account for a large portion of your participation "calculation"/ "extra credit." Participation and attendance (specifically during discussion days and videos) **can also increase your final grade** at the end of the semester. Your attendance (primarily during discussion days and videos) and the amount and level of participation performed during class discussions (and other classes) and via on-line discussion posts and outline submissions will enable you to potentially gain up to **2 additional points** toward your final overall grade. Only exceptional students will achieve the maximum. Good to average participating students, on the other hand, will receive **1 point added** to their final grade. This, for example, could potentially mean the difference between a B+ and an A, a B and a B+, etc.

Because of this policy, I will commonly take attendance for almost every class session, especially on discussion days and when we watch part or all of a documentary. Please keep in mind that students typically perform better on their exams and other assignments when they attend class on a regular basis. If a student misses 6 classes (or essentially 3 weeks of class) with unexcused absences or 4 unexcused absences including an exam day or paper assignment day, I will drop him/her from the course.

Participation Grade: Because reading and discussion is such a fundamental part of this class, regular attendance and active participation will count **5% of your final course grade**. Due to the fact that there is a large amount of significant reading materials (secondary and primary sources), students will receive a separate participation grade of A+ (5), A, A- (4.5), B (4.25), B- (4), C (3.75), C- (3.5), D (3.25), D- (3), F (2.75—0) based on the qualitative and regular participation each student provides throughout the semester, especially in relation to discussions and debates. The student should be prepared to discuss a range of topics discussed in each of the readings assigned for the class. This grade will be based in large measure on the key guidelines stipulated in the extra credit section related to in-class participation, attendance, and the *effective* completion of all assignments.

Quiz on Supplementary Reading: There will be a brief multiple choice and/or true/false and/or mini-essay question quiz on the supplementary book assigned for discussion day. The quiz is equal to **5% of your overall grade**. Students will **not** have the chance to drop this grade. This should help deter those who may decide to avoid reading the book. This should also help increase participation when discussing the work in class (scheduled on the syllabus). If a student is absent without a valid medical excuse on discussion days, then the student will have to submit an additional ½ book review (see below) of 2-3 pages to count in place of the quiz he or she missed. The student will have exactly one week to complete the additional ½ book review. This policy will hopefully prevent absenteeism during the scheduled book discussion.

Paper Assignments: You will write **TWO** major paper assignments for the semester. First, you are required to write **ONE** detailed book review of **four to six pages** analyzing the main themes addressed in the supplementary reading by tying it to two-to-three primary sources in *The 1960s: A Documentary Reader* or a documentary/textbook segment on a related topic (i.e., a Rock and Roll group, countercultural movement, Vietnam War-related topic, etc.) or a peer-reviewed scholarly article (i.e., from JSTOR) that I have approved. This reading discusses the history of the Hippie culture that emerged

in some places during the 1960s. Therefore, the author should address how and why this movement developed into a flourishing communal “gathering” by the end of the 1960s. Also, the author should pinpoint the extent to which this phenomenon shaped American culture. *Thus, how mainstream or representative is the book to what you previously thought represented the Hippie counterculture and other 1960s countercultural movements? Also, for example, what does the book add to our understanding of the 1960s—the realities and the mythologies pertaining to this transformational decade?* You should place the book within the broad context of the historical period it addresses. In your paper, make sure you provide a clear thesis statement in your opening paragraph that backs up—in an argumentative fashion—the extent to which you feel the book is or is not representative of the period it discusses. Then, make sure you back this up with evidence in the body of your paper. You are required to include citations for any readings you address, including the textbook, the book you choose, or any article or documentary you utilized. Footnotes, Endnotes, or parenthetical citations that include the author(s) and page numbers are all suitable methods to cite the evidence you use. Chicago style, which historians use, is probably the easiest (look at examples by googling online). Here is a good website with examples: https://owl.purdue.edu/owl/research_and_citation/chicago_manual_17th_edition/cmos_formatting_and_style_guide/chicago_manual_of_style_17th_edition.html

*The work will be due **NO LATER THAN THE DAY OF DISCUSSION as indicated under the schedule of events below**. Unless you have a medical excuse or another documented personal or family-related issue (i.e., death in the family, etc.), late papers will not be accepted. Moreover, you must turn in your paper on Blackboard and as a hard copy (if we have in-person instruction). No papers will be accepted as an e-mail attachment unless you have a documented or legitimate excuse. Do not use cliff notes or the internet (or any other sources outside of the actual readings/documentaries) to assist you in your analysis. I will expect you to discuss the entire work from cover to cover (or from the beginning to the end) rather than merely addressing only portions or subsections of the work. Please be sure to proof read thoroughly before submitting your assignment, as this will likely improve your grade on the assignment. The paper is worth **15% of your overall grade**. You will receive a grade of either A+, A, A-, B+, B, B-, C+, C, C-, D+, D, D-, or F. You will be graded on **TWO** categories: **Analysis/Use of Evidence** (the way in which content and your argument are connected, and how convincingly you project historical themes to the book/documentary in question; how well you weave in, explain, and back up evidence): 75%; **Prose and Editing/Paper Organization** (the way in which your writing brings authorial voice to your argument, minus gross grammatical errors; whether your paragraphs, sentence transitions, and overall organization show cohesive connections in your paper): 25%. Both of these categories will be discussed in-depth in class before the assignment is due to help you better understand what I am looking for when I assess your papers. **Note:** Avoid using too many quotes in your paper. A few are fine if you think they are essential in your discussion of the text in question. I want this review to include your words and assessments of the text, not the author’s or outside critics. Therefore, it is vital that you put the review in your own words! This gives you flexibility to express yourself within the confines of my instructions.

Please remember that you will be required to upload your paper to Blackboard on or after the due date. You will have a week from the due date to submit it on Blackboard. If we are doing full on-line instruction, you will be required to post it on Blackboard the day it is due according to the schedule of events below.

Writing Suggestions: Here are some suggestions regarding what you might want to address in your paper. This does not mean you must discuss these in this order, or that you must mention something related to each of my suggestions. This is provided to give you some idea of what I am looking for when I grade your assignment, as well as to help jump start your ideas before you begin writing your review.

1. What is/are the main thesis/themes put forth by the author? (A must)
2. How does the author back up his/her arguments? (Recommended)

3. Do you find these arguments convincing? Why or why not?
4. What content in the work grabbed your attention?
5. How does the book differ/or stay the same from the beginning to the end of the book?
(Recommended)
6. Did you like the book? Why or why not? (If you use, keep this brief—maybe one or two paragraphs preferably at the end of your paper as part of your conclusion)
7. How does this work relate to the overall history of the time period it discusses, and how does it account for change over time?

Again, these are only suggestions. Feel free to write anything that in some way relates to these questions. Use your own judgment and creativity, but just remember that your primary objective should be to develop a book review that thoroughly analyzes the work in question.

Second, by the fifth or sixth week of class, you will select one subtopic via a **movie/documentary on a 1960s topic or a 1960s-related memoir** that relates to a segment of the textbook you would like to utilize to “teach” the class. You must use *The 1960s: A Documentary Reader* book for more than one primary source to strengthen your discussion of the subtopic while connecting it to the broader historical context of the 1960s. Moreover, if you choose a documentary or movie, you must also have at least one peer-reviewed article from an academic journal via the Francis Marion Library digital resources (i.e. JSTOR and/or Academic Search Complete) that relates to your subtopic. For instance, subtopics can relate to the broader topics addressed in class, including: the women’s rights movement, the Vietnam War participants, the antiwar protesters, the rock musicians, the conservative backlash proponents, the sports icons (i.e., Muhammad Ali), the civil rights activists, or the 1960s political leaders. Two people cannot do the same or similar topics.

There are **two** parts to this assignment. You must write a paper that is **four to seven pages** in paragraph form about how you would teach the topic of your choice to students (i.e., middle school, high school, or college) while relating it to the broader historical context of the 1960s. You need to provide a thesis that captures your main ideas, and then you need to organize your paragraphs in a way that you can communicate the teachable aspects of the topic to a classroom audience. Please note that you may need to breakdown the content related to your topic to ensure that students understand its relevance within the historical context. Thus, the most important thing is that you need to write your paper in a way that broadens the reader’s/audience’s understanding of your chosen topic to ensure that others make the necessary historical connections. In doing so, be creative in making the content “stick” with the reader. For the written portion, these categories will be used: **Analysis** (including creativity)/**Prose and Editing** will count: 40%; **Use of Evidence/Paper Organization** (*especially how it relates to teaching it to others*) will count 60% (see descriptions above in the other paper section). Then, you will need to create a **digital video or in-class presentation** in which you actually teach the class according to your essay for 8-10 minutes. Be creative and feel free to utilize primary sources to enhance your video/in-person presentation so that it connects with students. I recommend that you begin your video/in-person presentation with a “hook” about the topic/particular content covered to spur on student interest in the subject. You are required to post your video (if doing a video) on Blackboard before **midnight** the day before the designated presentation day. I will provide a general rubric for students close to the time for videos/presentations (the date for presentations is set in syllabus schedule). The paper will count **15% of your overall final grade and the in-person/video presentation will count 5% of your overall course grade.**

Here are some helpful links:

Movies about or during the 1960s (or simply google, but make sure it is relevant to 1960s history—i.e., some of the films in the 1960s are not historically pertinent for this class):

<https://www.imdb.com/list/ls052411905/>

<https://ventured.com/highest-grossing-movies-of-the-1960s/>

1960s Memoirs:

https://www.goodreads.com/list/show/112751.Sixties_Memoirs_Biographies_nonfiction_

<https://pages.uoregon.edu/eherman/teaching/352/selected%201960s%20memoirs.html>

Documentaries on the 1960s:

<https://www.flickchart.com/Charts.aspx?genre=documentary&decade=1960>

Type in 11 or 12 font, 1" margins, and make sure that you double space.

Writing Center and assistance: Please do not hesitate to visit the Francis Marion University Writing Center to get assistance with your writing. They are there to help you!

The written work you complete in this class may be included as a portion of your overall writing “history” as a Francis Marion University student. As such, I strongly recommend that you should not discard any graded and returned work until you have received your final grade for this course. You should do the same for any other written work you submit while a student at Francis Marion University, especially if you believe it would enhance your chances of meeting any of the necessary writing competencies Francis Marion may have for students.

Moreover, the Francis Marion Writing Center and the Center for Academic Success and Advisement (CASA) is available to assist you. The Writing Center is located in FH 114-C. Please feel free to view their website for further details. Here is the link: <https://www.fmarion.edu/writingcenter/>

Recording Device: You may tape record my lectures/discussions. This may help you review if you missed something during class. However, you may **not** listen to them during an exam or quiz.

Blackboard: You must have a Blackboard account to post discussion posts and to receive instructionally based information from me. I will also use this as my medium for distributing historically relevant information that will be beneficial to you in this class. You must also have access to PowerPoint software with audio capabilities in case we have to convert to an all online mode of instruction.

Weekly Digital Discussion Board Responses: On a weekly basis, students will be required to provide at least one-to-two responses to a question or set of questions related to a topic addressed in class, an assigned primary source reading, an assigned supplemental book, a video clip or documentary posted, an in-class documentary, an exam review-related question, or any other 1960s-related topic of the professor’s choosing. Using the FMU Blackboard system, students will write thoughtful, detailed, and historically relevant responses within one week after questions are posted. One-to-two sentence responses that fail to provide some form of “evidence-based” communication will not satisfy the requirement. Responses should enhance the overall classroom learning community, and they should provide a better

appreciation for the complexity inherent in historical thinking and analysis. Students may respond to other student responses if they effectively address the original question. The digital discussion board responses will constitute **10% of your course grade**. Extra discussion board responses will contribute to your participation grade. **On a weekly basis, students will receive an S (for satisfactory-100), N (for neutral--75), U (unsatisfactory--50), I (incomplete--25), or NS (not submitted--0). Students may drop one of their lowest grades over the course of the semester. Based on our schedule, there may be one or two weeks without a discussion question or questions.**

Moreover, on Blackboard, I will periodically post lecture or discussion outlines and/or various other resources (PPTs, video clips, etc.) for students to utilize during and after class.

Examinations: A midterm and a final exam will be given on the scheduled dates. Each of these exams will be non-cumulative. The examinations will consist of paragraph-length identifications and essay questions, and multiple choice and/or true/false questions and/or fill-in-the-blank options. You **MUST** purchase and use “blue-books” for all in-class exams. The midterm and final exam will count **35%** (15% for the midterm and 20% for the final exam) **of your final grade**. On non-discussion days, there will be no “pop quizzes” and no surprise assignments. There is no extra credit other than the class participation option (which includes the extra documentary showing that is listed on the syllabus schedule) noted earlier in the syllabus.

Outlines: Students will complete **four outlines of his/her choosing** on the * marked articles of his/her choosing and can incorporate any related primary source readings in *The 1960s: A Documentary Reader* assigned for that particular class day. The outlines should be no more than double spaced and should “capture” the main idea of several of the key points and/or quotes described in each of the chosen articles/primary sources. They should be at least one page long and no more than two pages in length (no more than 12 pt. font). You can do an outline on **ONE** of the documentaries shown in class (with my permission). This counts **8%** of your final grade. Moreover, each student will guide the discussion of one of the assigned articles with a * on it. Thus, every student will participate in facilitating discussion via his/her outline or by this and other means, so everyone needs to keep up with the readings to ensure that there will be active in-class participation. Articles will be assigned on a first-come-first-serve basis based on the order in which students email me their interest. Students will rank his/her top three articles in which he/she seeks to lead discussion. Leading discussion will count **2%** and should last about 5-10 minutes. The same grading technique for the weekly discussions will be utilized for the outlines and the guided discussion session. Turn your outlines in on Blackboard under the **Content** section by uploading them in the order in which you complete them. They will be numbered 1-4. The first one you complete will go under 1, . . . the 2nd one you complete will go under 2, and so on.... Finally, do not turn in outlines on the supplementary book, just the articles marked with a *. Please note that any outlines you create can be used on the midterm and final exam. You must turn in outlines by midnight within 2 days of the day the readings were assigned (For example, Monday would have be turned in on Blackboard by Weds. at midnight).

Make-up Work: All assignments are due on the scheduled dates. All unexcused, missed assignments will count as “zero” grades. All late, unexcused assignments—if I accept them—will count off one letter grade for every class day the assignment is late. If you have a valid reason for missing a class or assignment, please inform me as far in advance as possible. If you miss an assignment unexpectedly, please inform me immediately. In extenuating and documented cases, these assignments can usually be made up. You are responsible for knowing and making-up anything that transpired in class during your absence. All make-up work must be handed in or completed no later than the last scheduled class day. **NOTE:** If you miss any of the two exams during the semester (and I allow you to make it up), the make-up exam will be more difficult than the scheduled exam, so be aware of this before you decide to miss an exam. If you are allowed to make up an exam, you will have to do so during the end-of-semester final

exam time slot after you have completed your final exam. However, I may be more flexible regarding this stipulation if you provide medical documentation that clearly indicates that you were unable to take the exam on the scheduled date. Also, there will **NOT** be a make-up (barring unforeseen extreme circumstances) for the final exam, so make sure you are in attendance on the day of the final.

Grade Challenges: For any written assignment (on your paper or on any of your exams) that you want to challenge because you feel you were graded unfairly, you must write a 250 to 500 word essay (typed) justifying why you think you deserve a better grade. I must receive this before I will consider changing your grade. Also, your essay should be completed within **one** full week on the hour that you received your paper back or received your grade (if online teaching is the case) for me to take your grievance into consideration. Please note that I will be happy to meet with you about how you can improve written assignments for this class. However, you must adhere to my policy before I will consider grade challenges.

Attendance: Because this is an upper-level history course, regular attendance is required and will be taken to determine in part if you qualify for extra credit points. More weight for extra credit will be placed on attendance during discussion days and during possible video days for documentary showings about America in the 1960s. Please keep in mind, however, that I have found that students typically perform better on their exams and other assignments when they attend class on a regular basis.

If you attend class regularly, I will accept any reasonable excuse as valid for missing a class or an assignment (except the book review/paper day and the quiz), and you will have no difficulty making up any missed work. If you do **NOT** attend class regularly, you must provide documented excuses of a serious nature such as a death in the immediate family, incapacitating illness, etc., in order to make up a missed assignment. I will judge the seriousness and validity of each case. Please see my comment above about too many absences.

Tardiness: Although you will not lose credit for being late to class, frequent and regular tardiness will not be tolerated. If tardiness continues, you will be asked to correct the habit or drop the course. Leaving class early without prior permission—unless you suddenly become ill—is rude and inappropriate. If you are planning to leave class early, please notify me before class.

Special Needs: If you have a learning or physical condition/disability that might impact your performance in this class, please inform me and contact the Francis Marion Counseling and Testing Center as soon as possible. They will verify your status and provide you with any appropriate assistance. Once an evaluation has been made, appropriate accommodations will be determined. This information will be kept confidential.

The website address is:

<https://www.fmarion.edu/counselingandtesting/>

Class Conduct: You are expected to act appropriately in class. Showing respect to your fellow classmates and the instructor is a critical precursor for a welcoming classroom environment. This includes refraining from classroom disruptions, talking during instruction, doing work not related to this class, eating, sleeping, or reading newspapers. I may ask you to leave the room if such behavior becomes a problem. You may bring drinks to class. **Please turn off cell-phones. You may use a laptop if it is used for classroom purposes. I will give a student one warning about this policy. If it is broken after the first warning, then the student or students will be asked to leave the class.**

Honor System: This course has “zero tolerance” for cheating. Any work in infringement of the university academic honesty code (<https://www.fmarion.edu/wp-content/uploads/2016/07/4.8.1-3-Student-Handbook-p.-59-60.pdf>) will at a minimum receive a “0” grade, which makes failing the course a much higher possibility. You can expect possible suspension or expulsion for plagiarism on a paper or after cheating on an exam. The relevant point is that the student can’t play for sympathy in the course of the judicial process by arguing that he or she wasn’t warned.

You are expected to be able to explain anything in your paper or exams; this may involve a required oral conference after you have handed it in (in other words, don’t put anything in your paper that you don’t understand yourself).

Office Hours and Appointments: Scheduled office hours are listed on the first page of the syllabus. If these hours are inconvenient, I will gladly make special appointments, since I will be in my office often, and if I am in, I will gladly see you unless I have another appointment or critical deadline approaching. I strongly encourage you to discuss with me any question or problem you may have concerning the course.

Grading: Each assignment counts a percentage of the final grade listed in this syllabus. Your final grade will be calculated according to these percentages. Once calculated, the numerical grades have the following letter equivalents: 100-90= A; 89-88= B+; 87-80= B; 79-78= C+; 77-70= C; 69-68= D+; 67-60= D; 59-0= F

Class Schedule Below: Note: If a change is deemed necessary, this schedule is subject to change at my discretion. Moreover, with the ongoing COVID-19 pandemic, classes can be converted to online if it is deemed necessary by the state’s political leaders and/or the administration leaders at Francis Marion University.

1st Week—The “Roots” of the 1960s—*America Divided*—read the Preface and Introduction, pg. 1-5.

W—1-20-- Introduction and briefly go over guidelines; hand out essays for the course--Watch, “America in Color: the 1950s” or another documentary segment on the 1950s, or the roots of the 1960s; Watch movie trailer, *The Primary* (on John F. Kennedy Presidential Run in 1960); **For homework, read the syllabus very closely. Almost everything you need to know about the course is listed in the syllabus. It is your course guide.**

2nd Week—The Foundations for the Coming Division; Modern Civil Rights – Read Chapter 1 and 2 (begin) *America Divided*

M—1-25—The Seeds of the Tumult to Come; *The 1960s: A Documentary Reader*: Chapter 1 Documents: 1. (starts on pg.19) Jack Gould, “Elvis Presley on the Ed Sullivan Show, 1956”; 3. (starts on pg. 26) Nora Johnson, “Sex and the College Girl,” 1957; 4. (starts on pg. 31) *Time*, “The Roots of Home,” 1960; Begin, The Beginning of the post-World War II Black Freedom Struggle

W—1-27—Finish, The Beginning of the post-World War II Black Freedom Struggle; *The 1960s: A Documentary Reader*: Chapter 1 Documents: 2 (starts on pg. 22) “Martin Luther King, Jr., ‘Our Struggle,’ 1956”; Chapter 4 Documents: 1. (starts on pg. 69) “SNCC, Statement of Purpose, 1960”; Election of 1960--The Kennedy vs. Nixon Debate (the turning point)

3rd Week—Early 1960s Idealism Meets Reality—*America Divided* Chapter 3

M—2-1—The Age of Idealism and Foreign Policy under President John F. Kennedy; Watch, *Fog of War* excerpt on the Cuban Missile Crisis; *The 1960s: A Documentary Reader*: Chapter 3 Documents: 1. (starts on pg. 55) “John F. Kennedy, Inaugural Address, 1961” and Chapter 3 Documents: 2. (starts on pg. 58) “Robert McNamara, Notes on October 21, 1962, Meeting with the President”; *The 1960s: A Documentary Reader*: Chapter 9: 1. (starts on pg. 173) John F. Kennedy, “The Nation’s Space Effort,” 1962

W—2-3—**FMU Patriot Pause Day—No class.**

4th Week—Why Vietnam and What Now; 1963: The Decade is about to Shift Gears—Chapter 3 (cont.), 4 and 5 *America Divided*

M—2-8—Finish (if necessary), The Age of Idealism and Foreign Policy under President John F. Kennedy; Begin, The Onset of the Vietnam War and the Consequences; *The 1960s: A Documentary Reader*: Chapter 6 Documents: 1. (starts on pg. 107) “Lyndon B. Johnson, Telephone Conversation with Senator Richard Russell, 1964” and 2. (starts on pg. 110) “US Congress, Tonkin Gulf Resolution, 1964”

W—2-10—Finish, The Onset of the Vietnam War and the Consequences; 1963: The Times Are About to Change; (Side issue: Coming Conservatism); *The 1960s: A Documentary Reader*: Chapter 8 Documents: 4. (starts on pg. 157) Ronald Reagan, “A Time For Choosing,” 1964

5th Week—The Great Society—Chapter 6 and 7 (Civil Rights material) *America Divided*

M—2-15—If necessary, finish, 1963: The Times Are About to Change; Watch all or a portion of *American Experience: 1964*; *The 1960s: A Documentary Reader*: Chapter 4 Documents: 3. (starts on pg. 74) “Malcolm X, “The Ballot or the Bullet,” 1964 and Chapter 10 Documents: 1. (starts on pg. 189) Black Panther Party, “What We Want, What We Believe,” 1966

W—2-17—Was a “Great Society” on the Horizon--Butter?; *The 1960s: A Documentary Reader*: Chapter 2 Documents: 1. (starts on pg. 41) Michael Harrington, *The Other America*, 1962, Chapter 2 Documents: 2. (starts on pg. 46) “Council of Economic Advisers, Annual Report, 1965, 1966”, and Chapter 4 Documents: 5. (starts on page 83) Lyndon B. Johnson, “To Fulfill These Rights,” 1965

6th Week—Vietnam Escalation and the Solidified and Emerging Youth Movement and the Political Consequences—Chapter 7 and 8 *America Divided*

M—2-22—1965: The Genie is Out of the “Containment” Bottle; Listen to Jim Morrison (lead singer of *The Doors*) interview with Tony Thomas about the 1960s youth culture and his reaction to it. (You.Tube); begin, The Emerging and Influential Youth Culture; *The 1960s: A Documentary Reader*: Chapter 6 Documents: 3. (starts on pg. 112) US State Department, *Aggression from the North*, 1965

W—2-24—Finish, The Emerging and Influential Youth Culture; *Read, “The Summer of Love and Protest: Transatlantic Counterculture in the 1960s” by Russell Duncan in *The Transatlantic Sixties* with editors (discuss); Watch, all or excerpt of *Feast of Friends* of the *The Doors* (great depiction of a 1960s *cinéma vérité*); Review for Midterm exam.

7th Week—The New Left and the 1960s Counterculture Movement—Chapter 9 *America Divided*

M—3-1—Midterm Exam (make sure you have a blue book)

W—3-3—The New Left and Challenges; *Read “‘Law and Order’ at Large: The New York Civilian Review Board Referendum of 1966 and the Crisis of Liberalism” by Michael W. Flamm in *The Historian*; *The 1960s: A Documentary Reader*: Chapter 5 Documents: 2. (starts on pg. 95) Mario Savio, “An End to History,” 1964; begin *American Experience: Summer of Love*

8th Week—1960s Counterculture Movement and the “Guns” Against the Great Society—Chapter 10 *America Divided*

M—3-8—Quiz on book and your essay is due--Discussion: Outside Reading *The Hippies and American Values*; finish *American Experience: Summer of Love*

W—3-10—“Guns” Win Over “Butter”: A Great Society Depleted; Show *Citizen King* excerpt on Martin Luther King’s visit to Chicago and an excerpt from his “Beyond Vietnam” speech on April 4, 1967; *The 1960s: A Documentary Reader*: Chapter 6 Documents: 5. (starts on pg. 117) “Corporal Jon Johnson, Letter to Mom & Dad & Peggy, 1966” (to set the stage for the documentary for week 9)

9th Week—The Renewed Conservative Movement—Chapter 11 *America Divided*

M—3-15— Backlash Politics and an Emerging Conservative Movement; *Read “Women, Domesticity, and Postwar Conservatism” by Michelle Nickerson in the *Organization of American History Magazine of History*; *The 1960s: A Documentary Reader*: Chapter 8 Documents: 2. (starts on pg. 151) “Young Americans for Freedom, Sharon Statement, 1960”; *The 1960s: A Documentary Reader*: Chapter 3 Documents: 4. (starts on pg. 65) Revd. David A. Noebel, *Rhythm, Riots and Revolution*, 1966; (extra credit opportunity after class) Watch, *American Experience: Two Days in October*—American Polarization Captured in Two Transnational Days—a classic documentary on the Vietnam War era

W—3-17— **FMU Patriot Pause Day—No class.**

10th Week—The Year to Remember—Chapter 12 *America Divided*

M—3-22— begin, 1968: The Year that “Rocked” America; *Read “TV’s 1968: War, Politics, and Violence on the Network Evening News” by Chester J. Pach, Jr. in *South Central Review*; begin watching CNN or PBS General Video on 1968; *The 1960s: A Documentary Reader*: Chapter 6 Documents: 6. (starts on pg. 119) “CBS News, ‘Saigon Under Fire,’ 1968”

W—3-24— finish, 1968: The Year that “Rocked” America; finish watching CNN or PBS General Video on 1968; *The 1960s: A Documentary Reader*: Chapter 8 Documents: 5. (starts on pg. 161) Herblock, “Wallace For President,” 1968 and 6. (starts on pg. 163) “Richard M. Nixon, Presidential Nomination Acceptance Speech, 1968”

11th Week—The Women's Movement and Other Forces and Changes Chapter 13 *America Divided*

M—3-29— Begin watching excerpt on *American Experience: RFK on 1967-1968*; 1960s Women's Movement; *Read, "Women's Liberation: Seeing the Revolution Clearly" by Sara M. Evans in *Feminist Studies*; *The 1960s: A Documentary Reader*: Chapter 7 Documents: 1. (starts on pg. 125) Betty Friedan, *The Feminine Mystique*, 1963 and 4. (starts on page 135) "Restockings Manifesto, 1969"

W—3-31— Finish; 1960s Women's Movement; Begin, Change was in the Air: the Other Forces of Change and the Consequences; *The 1960s: A Documentary Reader*: Chapter 7 Documents: 2. (starts on pg. 129) *US News & World Report*, "The Pill," 1966 and 6. (starts on pg. 142) Ruth Miller, "Testimony to Senate Hearing on an Equal Rights Amendment, 1970"; *The 1960s: A Documentary Reader*: Chapter 11 Documents: 4. US Supreme Court, *Roe v. Wade*, 1973

12th Week—Other Forces and Changes and the Legacy of Music—Chapter 13 *America Divided*

M—4-5— Finish, Change was in the Air: the Other Forces of Change and the Consequences; *Read, "Protest Movements in the 1970s: The Long 1960s" by Simon Hall in *Journal of Contemporary History*; Excerpt from: *American Experience: Stonewall Uprising*; *The 1960s: A Documentary Reader*: Chapter 9 Documents: 5. (starts on pg. 186) Stewart Brand, *Whole Earth Catalog*, 1968 and Chapter 10 Documents: 3. (starts on pg. 194) Indians of All Nations, "Alcatraz Proclamation," 1969

W—4-7— *The 1960s: A Documentary Reader*: Chapter 9 Documents: 3. (starts on pg. 179) Rachel Carson, *Silent Spring*, 1962 and 4. (starts on pg. 182) US Congress, the Wilderness Act, 1964; Watch, *American Experience: Woodstock: Three Days that Defined a Generation*—1969—compare with the Altamont Concert a few months later

13th Week—Final Projects and a Polarized Nation Proceeds into the 1970s—Chapter 14 *America Divided*

M—4-12— **Turn in Final Papers or Research Papers**; Student Presentations or Video Presentations are due!!—See instructions earlier in the syllabus. Class may be slightly longer than usual to finish presentations.

W—4-14—Finish presentations, as needed; A Nation Wounded and Filled with Strife Enters a New Decade and Era; *The 1960s: A Documentary Reader*: Chapter 11 Documents: 3. (starts on pg. 205) John Filo, Kent State Killings, 1970

14th Week—A Polarized Nation Proceeds into the 1970s and a Seemingly Endless War Draws Down with Profound Consequences; The Consequences of the 1960s—Chapter 14 (cont.) and the Conclusion section *America Divided*

M—4-19—finish, A Nation Wounded and Filled with Strife Enters a New Decade and Era; *Read, “Our Worst Enemy Seems to Be the Press”: TV News, the Nixon Administration, and U.S. Troop Withdrawal from Vietnam, 1969-1973” by Chester Pach, Jr. in *Diplomatic History*; *The 1960s: A Documentary Reader*: Chapter 8 Documents: 7. (starts on pg. 168) “Spiro Agnew, Television News Coverage, 1969”; Watch excerpt from *The Fog of War* about the consequences of the Vietnam War and its long-term implications

W—4-21—Who Won and Lost During the 1960s; *Read, “Was the Civil Rights Movement Successful? Tracking and Understanding Black Views” by Wayne A. Santoro in *Sociological Forum*; *Read, “Beyond the Dominant Narrative: The Ongoing Struggle For Civil Rights in the U.S. South, 1968-1980” by Timothy J. Minchin in *Australian Journal of American Studies*

15th Week—The Unintended but Powerful Consequences of the 1960s—Conclusion section (cont.) *America Divided*

M—4-26 (Last Day of Classes)—The Birth of “Family Values” as the Christian Right Reacts to the 1960s in the Present; *Read, “‘Family Values’ and the Formation of a Christian Right Agenda” by Seth Dowland in *Church History*; *The 1960s: A Documentary Reader*: Chapter 8 Documents: 1. (starts on pg. 147) Billy Graham, “The National Purpose,” 1960 and 3. (starts on pg. 153) US Supreme Court, *Abington v. Schempp*, 1963; View a CNN or PBS general documentary segment on the long-term impact of the 1960s; Briefly review for the final exam. (Depending on the circumstances surrounding the COVID-19 pandemic, there is a chance that the class may take the Final Exam on this day.)

Final Exam: Tues. May 4th at 8:30-10:30 AM (Subject to change, especially if there are graduating seniors in this class)

- Purpose:
1. For Whom (generally?)
 2. What should the course do for the student?

Teaching method planned:

Textbook and/or materials planned (including electronic/multimedia):

Course Content: This is a cross-listing to reflect its use toward the anthropology minor. The change makes students aware that HIST 343 and ANTH 343 are the same course and credit cannot be given for both. The course content remains the same.

**FRANCIS MARION UNIVERSITY: DESCRIPTION OF PROPOSED
NEW COURSE or MODIFICATION OF AN EXISTING COURSE**

Department/School Mathematics Date October 26, 2020

Course No. or Level 312 Title MATH 312 - Probability and Statistics for Science and Mathematics

Semester hours 3 Clock hours: Lecture 3 Laboratory 0

Prerequisites A grade of C or higher in Math 202 or permission of the department

Enrollment expectation 20

Indicate any course for which this course is a (an)

modification course description and prerequisite
(proposed change in course title, course description, course content or method of instruction)

substitute _____
(The proposed new course replaces a deleted course as a General Education or program requirement.)

alternate _____
(The proposed new course can be taken as an alternate to an existing course.)

Name of person preparing course description Sophia D. Waymyers

Department Chairperson's/Dean's Signature *Theresa Puffer*

Provost's Signature *Peter King*

Date of Implementation Fall 2021

Date of School/Department approval 10/26/2020

Catalog description: see attached

Purpose: 1. For Whom (generally?) no changes from current purpose
2. What should the course do for the student?

Teaching method planned: No changes from current methods

Textbook and/or materials planned (including electronic/multimedia): No changes from current textbook

Course Content: (Please explain the content of the course in enough detail so that the Academic Affairs Committee can make an informed judgment.
Include a syllabus for the course.) No changes from current course content

When completed, forward to the Office of the Provost.

9/03

MATH 312 – Probability and Statistics for Science and Mathematics

Mathematics Department

Course Description:

FROM:

312 Probability and Statistics for Science and Mathematics (3) (Prerequisites: 230 or 134 and 202 or permission of the department) F. Descriptive statistics, elementary probability, random variables and their distributions, expected values and variances, sampling techniques, estimation procedures, hypothesis testing, decision making, and related topics from inferential statistics

TO:

312 Probability and Statistics for Science and Mathematics (3) (Prerequisites: A grade of C or higher in Math 202 or permission of the department) F. The course will cover topics in descriptive statistics, elementary probability, random variables and their distributions, expected values and variances, sampling techniques, estimation procedures, hypothesis testing, decision making, and related topics from inferential statistics.

Course Content: No changes to course content, textbook or teaching methods

**FRANCIS MARION UNIVERSITY: DESCRIPTION OF PROPOSED
NEW COURSE or MODIFICATION OF AN EXISTING COURSE**

Department/School Mathematics (STAT) Date 10/26/2020

Course No. or Level 220 Title STAT 220 - Statistical Methods I

Semester hours 3 Clock hours: Lecture 3 Laboratory 0

Prerequisites A grade of C or higher in Math 134 or Math 312; or Corequisite: Math 312

Enrollment expectation 20


Indicate any course for which this course is a (an)

modification _____
(proposed change in course title, course description, course content or method of instruction)

substitute _____
(The proposed new course replaces a deleted course as a General Education or program requirement.)

alternate _____
(The proposed new course can be taken as an alternate to an existing course.)

Name of person preparing course description Renee' Dowdy

Department Chairperson's/Dean's Signature 

Provost's Signature 

Date of Implementation Fall 2021

Date of School/Department approval 10/26/2020

Catalog description: see attached

Purpose: 1. For Whom (generally?) see attached
2. What should the course do for the student? see attached

Teaching method planned: Lecture

Textbook and/or materials planned (including electronic/multimedia): see attached

Course Content: (Please explain the content of the course in enough detail so that the Academic Affairs Committee can make an informed judgment.
Include a syllabus for the course.) see attached

When completed, forward to the Office of the Provost.

9/03

STAT 220 – Statistical Methods I

Mathematics Department

Course Description: (Prerequisite: A grade of C or higher in Math 134 or Math 312; or Corequisite: Math 312), F.

STAT 220 is designed to introduce students in varying disciplines to statistical methods and software. By the end of the course students should have a conceptual understanding of statistical analysis and should be able to choose appropriate statistical procedures for their data. They should be able to carry out statistical tests, using software as appropriate, and draw valid conclusions.

Purpose:

For whom? This course is designed for second or third- year undergraduate students pursuing a minor in Statistics.

What should the course do for the student? Upon successful completion of this course, students should be able to:

1. Understand and describe the role of sampling distributions in inferential statistics, including how sampling distributions are used to estimate population parameters and describing the distribution of the sampling mean from samples obtained from normal and non-normal populations.
2. Exercise sound judgment based on understanding to use statistical inference when drawing conclusions about a population from sample data.
3. Demonstrate significance tests for inference about a population mean or means when the population standard deviations aren't necessarily known.
4. Conduct significance tests for inference with two proportions.
5. Utilize methods for analyzing categorical data.

Teaching Method planned: Lecture

Textbook and/or material planned (including electronic/multimedia):

Required Materials: Moore, D. S., McCabe, G. P., & Craig, B. A. (2017). *Introduction to the Practice of Statistics*. Macmillan Education.

Course Content: (see attached syllabus)

STAT 220 – Statistical Methods I

Course Description: (Prerequisite: A grade of C or higher in Math 134 or Co-req: Math 312), F. STAT 220 is designed to introduce students in varying disciplines to statistical methods and software. By the end of the course students should have a conceptual understanding of statistical analysis and should be able to choose appropriate statistical procedures for their data. They should be able to carry out statistical tests, using software as appropriate, and draw valid conclusions.

Instructor: A. Renee' Dowdy

Office: LSF 401

Phone: 661-1582

Email: adowdy@fmarion.edu

Office Hours

Monday	Tuesday	Wednesday	Thursday	Friday

Required Materials:

Textbook: Moore, D. S., McCabe, G. P., & Craig, B. A. (2017). *Introduction to the Practice of Statistics*. Macmillan Education.

Required Computing Resources:

Some problems in this course involve analyzing statistical computer output. We will primarily learn to use SAS or R software to do the needed computations. You will need computer access with SAS software (available for free to university students). This can easily be accessed on your personal computer through the internet. You will be provided with instructions for creating a free SAS education account. Alternatively, you may use the software package R (available as a free download from the [CRAN](https://cran.r-project.org/) home page). This can easily be downloaded onto your personal computer.

GRADING SCALE

A	90 – 100
B+	85 – 89
B	80 – 84
C+	76 – 79
C	70 – 74
D+	65 – 69
D	60 – 64
F	below 60

Grading Policy

Category	Percentage of Final Grade
Homework/Classwork-Computer lab /Case Studies/ Problem Sets	30%
Project	10%
Unit Exams	40%
Comprehensive Final	20%

Course Objectives:

Upon successful completion of this course, students should be able to:

1. Understand and describe the role of sampling distributions in inferential statistics, including how sampling distributions are used to estimate population parameters and describing the distribution of the sampling mean from samples obtained from normal and non-normal populations.
2. Exercise sound judgment based on understanding to use statistical inference when drawing conclusions about a population from sample data.
3. Demonstrate significance tests for inference about a population mean or means when the population standard deviations aren't necessarily known.
4. Conduct significance tests for inference with two proportions.
5. Utilize methods for analyzing categorical data.

Attendance:

Attendance and active participation are critical to your success in this course. Attendance will be taken at every class meeting. Under no circumstance should you accumulate more than six absences during the semester, if so, you may be automatically withdrawn from the class. It is your responsibility to obtain and learn material missed due to any absence. No late or make up work will be accepted. It is the student's responsibility to keep up with the number of absences accrued.

Homework/Case Studies/Problem Sets/Classwork-Computer Labs:

There will be homework and problem sets assigned throughout the semester. Each student is expected to complete homework assignments independently. You may discuss problems informally, but each person is expected to submit his/her own work. All homework problems must be written neatly and clearly in the order assigned. Any work that is submitted for grading must have all work shown (including any needed computer output) in order to receive credit. Case studies and classwork-computer labs will frequently be assigned during class time.

Unit Exams:

There are two scheduled exams in this course. These exams are designed to be completed in one class period. As a rule, ***there are no provisions for make-up exams.***

Comprehensive Final: All students are required to take the final exam. The final exam will cover all material from the semester.

Academic dishonesty:

All course work must be completed independently unless otherwise specified by your instructor. Copying work from another student(s) or strictly from an app is not allowed. Each student is responsible for completing the assigned work. Incidents of Academic Dishonesty on an assignment will result in a grade of 0 for that assignment.

Other Expectations:

- You are expected to actively participate in class each day by taking notes, asking questions, and participating in any problem-solving discussions.
- Respectful behavior towards your fellow students and instructor is expected. For critical thinking and open communication to occur in the academic environment, all students must feel safe. For this reason, language intended to insult, demean, or stigmatize individuals or groups will not be tolerated. Failure to follow these guidelines may result in you being asked to leave the classroom. Repeated offenses will result in your dismissal from the course.
- Cell phones should be stowed away and kept on vibrate or silent during class. Failure to do so may result in your being dismissed from class.
- **You are expected to put forth as much effort as is required for you to be successful in this course.** Please ask questions (in class or during office hours) if there is something that you do not understand.

Disability Support Services:

Students with documented disabilities are encouraged to contact the Office of Counseling and Testing, 843-661-1840 as soon as possible so that proper accommodations can be provided.

Disclaimer & Rights

Information contained in this syllabus was to the best knowledge of the instructor considered correct and complete when distributed. The instructor reserves the right, acting within the policies and procedures of FMU to make changes in the course content or instructional techniques without notice or obligation. Students will be informed about the changes, if any.

Tentative schedule of topics:

Week	Topic	Textbook Section
I	Chapter 5: Sampling Distributions	
	A brief introduction to statistical software	-
	Toward Statistical Inference	5.1
II	The Sampling Distribution of a Sample Mean: The Mean and Standard Deviation of \bar{x}	5.2
	The Central Limit Theorem	5.2
	Sampling Distributions for Counts and Proportions: Binomial Distribution	5.3
III	Binomial Probabilities, Mean and Standard Deviation and Sample Proportions	5.3
	Normal Approximation for Counts and Proportions and Continuity Correction	5.3
	The Binomial Random Variable	5.3
IV	The Poisson Random Variable	5.3
	Case Study: Sampling Distributions	-
	Chapter 6: Introduction to Inference	
	Estimating with Confidence Interval	6.1
V	Tests of Significance: Principles of Hypothesis Testing	6.2
	Hypothesis Test: one-sample z-test (one-sided)	6.2
	Computer Lab: find one-sample Z confidence interval and one-sample Z test	
VI	Hypothesis Test: one-sample z-test (two-sided)	6.2

		Use and Abuse of Tests: Hypothesis Testing (other issues)	6.3
		Power and Inference as a Decision	6.4
	VII	Review	
		Exam 1	Ch 5 - 6
		Chapter 7: Inference for Means	
	VIII	Inference for the Mean of a Population: The t -distributions	7.1
		Hypothesis Tests: one-sample t -test and matched pairs t procedures	7.1
		Computer Lab: one-sample t procedures	
	IX	Beyond the Basics: The bootstrap	-
		Comparing Two Means: the two-sample z statistic	7.2
		Two-sample t procedures and confidence intervals	7.2
	X	Two-sample t significance test	7.2
		Project 1: Inference for Means	
		Robustness of two-sample procedures and inference for small samples	7.2
	XI	The pooled two-sample t procedures	7.2
		Additional Topics on Inference: sample size and non-normal populations	7.3
		Case Study: Non-parametric procedures (Mann Whitney U test/Wilcoxon rank-sum)	
		Chapter 8: Inference for Proportions	
	XII	Inference for a Single Proportion: Large-sample confidence interval for a single proportion	8.1
		Beyond the Basics: the plus four confidence interval for a single proportion	-
		Significance test for a single proportion	8.1
	XIII	Significance test for a difference in proportions and sample size for two-sample proportions	8.1
		Comparing two proportions: Large-sample confidence interval for a difference in proportions	8.2
		Case Study: Inference on Proportions	
	XIV	Review	
		Exam 2	Ch 7-8
		Chapter 9: Inference for Categorical Data	
		Inference for Two-Way Tables: hypothesis and expected cell counts	9.1
	XV	The chi-square test	9.1
		Computer Lab: chi-square test	
		Computations and computing conditional distributions	9.1
		Goodness of Fit	9.2
		Review	
	XVI	Final Exam Week	

**FRANCIS MARION UNIVERSITY: DESCRIPTION OF PROPOSED
NEW COURSE or MODIFICATION OF AN EXISTING COURSE**

Department/School Mathematics (STAT) Date 10/26/2020

Course No. or Level 221 Title STAT 221 - Statistical Methods II

Semester hours 3 Clock hours: Lecture 3 Laboratory 0

Prerequisites A grade of C or higher in STAT 220

Enrollment expectation 20


Indicate any course for which this course is a (an)

modification _____
(proposed change in course title, course description, course content or method of instruction)

substitute _____
(The proposed new course replaces a deleted course as a General Education or program requirement.)

alternate _____
(The proposed new course can be taken as an alternate to an existing course.)

Name of person preparing course description Renee' Dowdy

Department Chairperson's/Dean's Signature 

Provost's Signature 

Date of Implementation Fall 2021

Date of School/Department approval 10/26/2020

Catalog description: see attached

Purpose: 1. For Whom (generally?) see attached
2. What should the course do for the student? see attached

Teaching method planned: Lecture

Textbook and/or materials planned (including electronic/multimedia): see attached

Course Content: (Please explain the content of the course in enough detail so that the Academic Affairs Committee can make an informed judgment.
Include a syllabus for the course.) see attached

When completed, forward to the Office of the Provost.

9/03

STAT 221 – Statistical Methods II

Mathematics Department

Course Description: (Prerequisite: A grade of C or higher in STAT 220), S. STAT 221 is a continuation of Statistical Methods I (STAT 220) and is designed to introduce students in different disciplines to more complex data models utilizing statistical software. By the end of the course, students should have the conceptual understanding and knowledge to implement and interpret models using linear and multiple linear regression along with one- and two-way analysis of variance and non-parametric statistics.

Purpose:

For whom? This course is designed for second or third- year undergraduate students pursuing a minor in Statistics.

What should the course do for the student? Upon successful completion of this course, students should be able to:

1. Compute and interpret the results of a simple linear regression.
2. Perform and analyze the results of a multiple linear regression using statistical software.
3. Conduct and interpret the results of a One-Way Analysis of Variance.
4. Understand when to conduct a Two-Way Analysis of Variance and interpret the results.
5. Determine when specific non-parametric procedures may be applied and demonstrate ability to complete non-parametric tests.
6. Develop a prediction model using logistic regression.

Teaching Method planned: Lecture

Textbook and/or material planned (including electronic/multimedia):

Required Materials: Moore, D. S., McCabe, G. P., & Craig, B. A. (2017). *Introduction to the Practice of Statistics*. Macmillan Education.

Course Content: (see attached syllabus)

STAT 221 – Statistical Methods II

Course Description: (Prerequisite: A grade of C or higher in STAT 220), S. STAT 221 is a continuation of Statistical Methods I (STAT 220) and is designed to introduce students in different disciplines to more complex data models utilizing statistical software. By the end of the course, students should have the conceptual understanding and knowledge to implement and interpret models using linear and multiple linear regression along with one- and two-way analysis of variance and non-parametric statistics.

Instructor: A. Renee' Dowdy

Office: LSF 401 **Phone:** 661-1582

Email: adowdy@fmarion.edu

Office Hours

Monday	Tuesday	Wednesday	Thursday	Friday

Required Materials:

Textbook: Moore, D. S., McCabe, G. P., & Craig, B. A. (2017). *Introduction to the Practice of Statistics*. Macmillan Education.

Required Computing Resources:

Some problems in this course involve analyzing statistical computer output. We will primarily learn to use SAS or R software to do the needed computations. You will need computer access with SAS software (available for free to university students). This can easily be accessed on your personal computer through the internet. You will be provided with instructions for creating a free SAS education account. Alternatively, you may use the software package R (available as a free download from the [CRAN](http://cran.r-project.org) home page). This can easily be downloaded onto your personal computer.

GRADING SCALE

A	90 – 100
B+	85 – 89
B	80 – 84
C+	76 – 79
C	70 – 74
D+	65 – 69
D	60 – 64
F	below 60

Grading Policy

Category	Percentage of Final Grade
Homework/Problem Sets/Classwork-Computer labs/Case Studies	30%
Projects	10%
Unit Exams	40%
Comprehensive Final	20%

Course Objectives:

Upon successful completion of this course, students should be able to:

1. Compute and interpret the results of a simple linear regression.
2. Perform and analyze the results of a multiple linear regression using statistical software.
3. Conduct and interpret the results of a One-Way Analysis of Variance.
4. Understand when to conduct a Two-Way Analysis of Variance and interpret the results.
5. Determine when specific non-parametric procedures may be applied and demonstrate ability to complete non-parametric tests.
6. Develop a prediction model using logistic regression.

Attendance:

Attendance and active participation are critical to your success in this course. Attendance will be taken at every class meeting. Under no circumstance should you accumulate more than six absences during the semester, if so, you may be automatically withdrawn from the class. It is your responsibility to obtain and learn material missed due to any absence. No late or make up work will be accepted. It is the student's responsibility to keep up with the number of absences accrued.

Homework/Case Studies/Problem Sets/Classwork-Computer Labs:

There will be homework and problem sets assigned throughout the semester. Each student is expected to complete homework assignments independently. You may discuss problems informally, but each person is expected to submit his/her own work. All homework problems must be written neatly and clearly in the order assigned. Any work that is submitted for grading must have all work shown (including any needed computer output) in order to receive credit. Case studies and computer labs will be assigned to complete during class time.

Unit Exams:

There are three scheduled exams in this course. These exams are designed to be completed in one class period. As a rule, ***there are no provisions for make-up exams.***

Comprehensive Final: All students are required to take the final exam. The final exam will cover all material from the semester.

Academic dishonesty:

All course work must be completed independently unless otherwise specified by your instructor. Copying work from another student(s) or strictly from an app is not allowed. Each student is responsible for completing the assigned work. Incidents of Academic Dishonesty on an assignment will result in a grade of 0 for that assignment.

Other Expectations:

- You are expected to actively participate in class each day by taking notes, asking questions, and participating in any problem-solving discussions.
- Respectful behavior towards your fellow students and instructor is expected. For critical thinking and open communication to occur in the academic environment, all students must feel safe. For this reason, language intended to insult, demean, or stigmatize individuals or groups will not be tolerated. Failure to follow these guidelines may result in you being asked to leave the classroom. Repeated offenses will result in your dismissal from the course.
- Cell phones should be stowed away and kept on vibrate or silent during class. Failure to do so may result in your being dismissed from class.
- **You are expected to put forth as much effort as is required for you to be successful in this course.** Please ask questions (in class or during office hours) if there is something that you do not understand.

Disability Support Services:

Students with documented disabilities are encouraged to contact the Office of Counseling and Testing, 843-661-1840 as soon as possible so that proper accommodations can be provided.

Disclaimer & Rights

Information contained in this syllabus was to the best knowledge of the instructor considered correct and complete when distributed. The instructor reserves the right, acting within the policies and procedures of FMU to make changes in the course content or instructional techniques without notice or obligation. Students will be informed about the changes, if any.

Tentative schedule of topics:

Week	Topic	Textbook Section
I	Chapter 10: Inference for Regression	
	Simple Linear Regression: model and assumptions	10.1
	Estimating regression parameters and checking model assumptions	10.1
II	Computer Lab: Estimating the regression parameters	
	Confidence intervals and significance tests for mean response	10.1
	Computer Lab: Confidence interval and hypothesis tests for regression parameters	
III	Prediction intervals and transforming variables	10.1
	Beyond the Basics Case Study: Nonlinear regression	
	More Detail about Simple Linear Regression: ANOVA F test and other SLR topics	10.2
IV	Computer Lab: ANOVA F test	
	Project 1: Modeling with SLR	
	Review	
V	Exam 1	Ch 10
	Chapter 11: Multiple Regression	
	Inference for Multiple Regression: equation, data and model	11.1
	Estimation of multiple regression parameters	11.1
VI	Confidence intervals and significance tests for regression coefficients	11.1
	Computer Lab: The MLR model	
	ANOVA table for MLR and R^2	11.1
VII	Computer Lab: Model Building	
	Project 1: A Case Study of high school grades	11.2
	Review	
VIII	Exam 2	Ch 11
	Chapter 12: One-Way Analysis of Variance	
	Inference for One-Way Analysis of Variance: data and comparing means and two-sample t statistic	12.1
IX	Overview of ANOVA and ANOVA model, estimates of population parameters and testing hypotheses	12.1
	The ANOVA table and F test	12.1
	Computer Lab: One-Way Analysis of Variance	
X	Beyond the Basics: Testing the Equality of Speed (Modified Levene's Test)	
	Comparing the Means: contrasts, multiple comparisons and power	12.2
	Chapter 13: Two-Way Analysis of Variance	

		The Two-Way ANOVA model: model and assumptions and estimates of population parameters	13.1
	XI	Computer Lab: Cross Tabulation and Interaction Plots	
		Inference for Two-Way ANOVA	13.2
		Computer Lab: Two-Way ANOVA	
	XII	Project 2: ANOVA	
		Review	
		Exam 3	Ch 12 -13
	XIV	Nonparametric Tests	
		The Sign Test and Wilcoxon Rank-Sum Test for Matched Data	7.3
		Kruskal-Wallis Test for Independent Sample	-
	XV	Logistic Regression	
		Beyond the Basics: Multiple Logistic Regression	11.2
		Review	
	XVI	Final Exam Week	

**FRANCIS MARION UNIVERSITY: DESCRIPTION OF PROPOSED
NEW COURSE or MODIFICATION OF AN EXISTING COURSE**

Department/School Mathematics (STAT) Date 10/6/2020

Course No. or Level 240 Title Introduction to Statistical Computing

Semester hours 3 Clock hours: Lecture 3 Laboratory 0

Prerequisites a grade of C or higher in STAT 220

Enrollment expectation 20


Indicate any course for which this course is a (an)

modification _____
(proposed change in course title, course description, course content or method of instruction)

substitute _____
(The proposed new course replaces a deleted course as a General Education or program requirement.)

alternate _____
(The proposed new course can be taken as an alternate to an existing course.)

Name of person preparing course description Nicole Panza

Department Chairperson's/Dean's Signature 

Provost's Signature 

Date of Implementation Fall 2021

Date of School/Department approval 10/26/2020

Catalog description: See attached

Purpose: 1. For Whom (generally?) See attached
2. What should the course do for the student? See attached

Teaching method planned: Lecture

Textbook and/or materials planned (including electronic/multimedia): See attached

Course Content: (Please explain the content of the course in enough detail so that the Academic Affairs Committee can make an informed judgment.
Include a syllabus for the course.) See attached

When completed, forward to the Office of the Provost.

9/03

STAT 240 – Introduction to Statistical Computing

Course Description: (Prerequisite: Grade of C or higher in STAT 220), F. The course will cover topics in statistical computing including reading and manipulating data, data structures, producing graphical data representations, and analyzing data with statistical tests and procedures. The course will make use of appropriate statistical software such as *R* or *SAS*.

Purpose:

For whom (generally)? This course is designed for undergraduate students pursuing a minor in statistics. It would likely be taken after their first year.

What should the course do for the student? Upon successful completion of this course, students should be able to:

1. Import data into statistical software
2. Manipulate data into various data structures
3. Perform statistical tests on data
4. Create graphical representations of data
5. Export results for use in documents

Teaching method planned: Lecture

Textbook and/or materials planned (including electronic/multimedia):

Required Materials:

- Textbook: Lander, J. P. (2017). *R for Everyone: Advanced Analytics and Graphics*, 2nd Edition, Pearson
- The R package (freely available at www.r-project.org)

Course Content: (see attached syllabus)

STAT 240 – Introduction to Statistical Computing

Dr. Nicole Panza

npanza@fmarion.edu

(843) 661-1585

Course Description: (Prerequisite: Grade of C or higher in STAT 220), F. The course will cover topics in statistical computing including reading and manipulating data, data structures, producing graphical data representations, and analyzing data with statistical tests and procedures. The course will make use of appropriate statistical software such as *R* or SAS.

Upon successful completion of this course, students should be able to:

1. Import data into statistical software
2. Manipulate data into various data structures
3. Perform statistical tests on data
4. Create graphical representations of data
5. Export results for use in documents

Blackboard (blackboard.fmarion.edu): Blackboard will be used exclusively to complete assignments, post materials and for reminders.

Required Materials:

- Textbook: *R for Everyone: Advanced Analytics and Graphics* (2nd Ed), by Lander
- *The R Package* (freely available at www.r-project.org)

Grading Scale:

A	90-100%
B+	85-89%
B	80-84%
C+	75-79%
C	70-74%
D+	65-69%
D	60-64%
F	Below 60%

Course Grade:

30%	...Homework codes/Mini Projects/Class Participation
30%Tests (2 total)
40%Final Project

Homework Codes/ Mini Projects: Tasks will be given in the *R* environment that you will have to complete. Your code in the solution process in addition to the output result will be graded. Homework will be collected for grading roughly every two weeks. Late homework will be accepted until the start of the next class meeting after the due date for half credit. Illegible, unorganized or disorderly homework will not be accepted. Problems should be done in order with all work clearly shown and supporting technological work (code, output, etc.) provided.

Group work, in-class tasks, and participation are important parts of this class. Honest effort including actively taking part in class discussions and group discussion will earn credit in this category. Unfocused, disengaged or disruptive behaviors will not earn credit in this category.

Tests: Two tests will be given to assess your knowledge of the *R* environment and the tasks you are required to perform. Tests will be announced at least one week prior to the test date. If you have an excused absence (in writing) for an exam, the test must be taken prior to the test day. For extreme emergency situations, I must be notified within 24 hours of missing the exam and the exam must be taken within 6 days of the test date. Failure to comply with these requirements will result in a 0 for the test.

Final: All students are required to complete a final project. The project will be developed throughout the semester with graded checkpoints. The project will be to analyze a real-world problem and will consist of a written report, the code used to draw your conclusions and a presentation given during the final exam period.

Attendance: Class attendance is mandatory. For our safety, the classroom doors will be **LOCKED** after class has started. Late arrivals will not be admitted. Per the university policy, students who are absent more than 6 times may be withdrawn from the course at the discretion of the instructor. If you are absent from class you are still responsible for all notes and homework due that day.

Students with Disabilities: If you have a disability that qualifies you for academic accommodations, please request that a letter from the Office of Counseling and Testing be sent to me for verification. Contact me within the first week of class if you would like to use your accommodations.

Academic Integrity: All work including tests, codes and homework is expected to be your own. Cheating of any kind will result in zero points awarded for the assignment or exam. Cheating is considered giving or getting unauthorized assistance of any kind. Examples, though not limited to, are sharing tests and assignments with another student, using an online reference for test or homework solutions, using plagiarized code to answer test or homework problems. The offense will also be reported to the Provost. Repeat offenses will result in an F for the course.

Conduct Expectations: You are expected to be actively participating in class by taking notes and asking questions. Cell phones should be set to silent and should not be used in class for personal activities. Distractions, including phones may be confiscated for the remainder of the class period and could result in an absence. Respect is to be shown in all aspects of the course. This includes class sessions, e-mail and Blackboard communications.

Getting Help:

- Visit Office Hours: Start work early and come to office hours with specific questions and all work to use our time efficiently.

Important Dates:

Instructor reserves the right to change the syllabus at any time.

Week	Topic	Textbook Section
I	Chapter 4: Basics of R	
	Basic Operations, Variables, Data Types and Vectors	4.1-4.4
	Call functions in R	4.5-4.9
II	Chapter 5: Advanced Data Structures	
	Creating <i>data.frames</i> , lists	5.1-5.2
	Creating matrices and arrays	5.3-5.5
	Chapter 6: Reading Data into R	
	Reading CSVs and Excel Data	6.1-6.2
III	Reading from databases and other structures	6.3-6.4
	R Binary files and Data Included with R	6.5-6.6
	Extract Data from the Web and JSON data	6.7-6.9
IV	Chapter 7: Statistical Graphics	
	Base graphics	7.1
	<i>ggplot2</i>	7.2-7.3
	Chapter 8: Writing R Functions	
	Hello World! And function arguments	8.1-8.2
V	Return values and <i>do.call</i>	8.3-8.5
	Chapter 9: Control Statements	
	<i>If</i> and <i>Else</i> , <i>switch</i>	9.1-9.2
	<i>ifelse</i> , compound tests	9.3-9.5
	Chapter 10: Loops	
VI	<i>for</i> loops	10.1
	<i>while</i> loops, controlling loops	10.2-10.4
	Exam 1	
VII	Chapter 11: Group Manipulation	
	Apply family, <i>aggregate</i>	11.1-11.2
	<i>plyr</i> , <i>data.table</i>	11.3-11.5
	Chapter 12: Faster Grouping Manipulation	
	<i>pipes</i> , <i>tbl</i>	12.1-12.2
VIII	<i>select</i> , <i>filter slice</i>	12.3-12.5
	<i>mutate</i> , <i>summarize</i> , <i>group.by</i>	12.6-12.8
	<i>Arrange</i> , <i>do</i> , <i>dplyr</i> with databases	12.9-12.12
IX	Chapter 13: Iterating with <i>purrr</i>	
	<i>map</i> , <i>map</i> with specified types	13.1-13.2
	iterating over a <i>data.frame</i> , <i>map</i> with multiple inputs	13.3-13.5
	Chapter 14: Data Reshaping	
	<i>cbind</i> and <i>rbind</i> , <i>joins</i> , <i>reshape</i>	14.1-14.5
X	Chapter 15: Reshaping Data in <i>Tidyverse</i>	
	Binding rows and columns, <i>joins</i> with <i>dplyr</i>	15.1-15.2
	Converting data formats	15.3-15.4
	Chapter 16: Manipulating Strings	
	<i>paste</i> , <i>sprintf</i>	16.1-16.2
XI	Extracting text	16.3
	Regular expressions	16.4-16.5
	Chapter 17: Probability Distributions	
	Normal Distributions, Binomial Distribution	17.1-17.2
XII	Poisson Distribution and Other Distributions	17.3-17.5
	Chapter 18: Basic Statistics	
	Summary Statistics	18.1

		Correlation and Covariance	18.2
	XIII	t-test	18.3
		ANOVA	18.4-18.5
		Chapter 19: Linear Models	
		Simple Linear Regression	19.1
	XIV	Multiple Regression	19.2-19.3
		Review	
		Test 2	
	XV	Final Project Work Day	
		<i>Final Exam Week</i>	
	XVI		

**FRANCIS MARION UNIVERSITY: DESCRIPTION OF PROPOSED
NEW COURSE or MODIFICATION OF AN EXISTING COURSE**

Department/School Mathematics (STAT) Date October 26, 2020

Course No. or Level 320 Title STAT 320 - Introduction to Experimental Design

Semester hours 3 Clock hours: Lecture 3 Laboratory 0

Prerequisites A grade of C or higher in Stat 220

Enrollment expectation 20

Indicate any course for which this course is a (an)

modification _____
(proposed change in course title, course description, course content or method of instruction)

substitute _____
(The proposed new course replaces a deleted course as a General Education or program requirement.)

alternate _____
(The proposed new course can be taken as an alternate to an existing course.)

Name of person preparing course description Sophia Waymyers

Department Chairperson's/Dean's Signature *The Prothro*

Provost's Signature *Peter King*

Date of Implementation Fall 2021

Date of School/Department approval 10/26/2020

Catalog description: see attached

Purpose: 1. For Whom (generally?) see attached
2. What should the course do for the student?

Teaching method planned: Lecture

Textbook and/or materials planned (including electronic/multimedia): see attached

Course Content: (Please explain the content of the course in enough detail so that the Academic Affairs Committee can make an informed judgment.
Include a syllabus for the course.) see attached syllabus

When completed, forward to the Office of the Provost.

9/03

STAT 320 – Introduction to Experimental Design

Mathematics Department

Course Description: (Prerequisite: Grade of C or higher in STAT 220), S. The course will cover the design and analysis of experiments, including one and two factor analysis of variance, randomized designs, repeated measure and factorial experiments. The course will make use of appropriate statistical software such as R, SAS or Minitab.

Purpose:

For whom (generally)? This course is designed for second, third or fourth year undergraduate students pursuing a minor in statistics.

What should the course do for the student? Upon successful completion of this course, students should be able to:

1. Choose an appropriate design for a specific study
2. Construct the design necessary to analyze the data
3. Develop a plan to collect data for the experiment
4. Develop and implement an appropriate model for the data
5. Interpret results for a non-technical audience
6. Use statistical software to aid in the design and analysis of experiments

Teaching method planned: Lecture

Textbook and/or materials planned (including electronic/multimedia):

Required Materials:

- Textbook : Montgomery, D. C. (2019). *Design and Analysis of Experiments*, 10th Edition, John Wiley & Sons
- The R package (freely available at www.r-project.org)

Supplementary Materials:

- Lawson, John. *Design and Analysis of Experiments with R*. Vol. 115. CRC press, 2014.
- Oehlert, Gary. *A First Course in Design and Analysis of Experiments*, ISBN 0-7167-3510-5 (available online)
- *Basics of R: A Primer*, by Don Edwards (https://people.stat.sc.edu/Hitchcock/DE_Basics_R.doc)
- "An Introduction to R" manual (<https://cran.r-project.org/manuals.html>)

Course Content: (see attached syllabus)

STAT 320- Introduction to Experimental Design

Course Description: (Prerequisite: Grade of C or higher in STAT 220), S. The course will cover the design and analysis of experiments, including one and two factor analysis of variance, randomized designs, repeated measure and factorial experiments. The course will make use of appropriate statistical software such as R, SAS or Minitab.

Instructor: Dr. Sophia Waymyers

Office: LSF 409G

Phone: 661-1587

Email: SWaymyers@fmarion.edu

OFFICE HOURS

Monday	Tuesday	Wednesday	Thursday	Friday

Required Materials:

- **Textbook :** Montgomery, D. C. (2019). *Design and Analysis of Experiments*, 10th Edition, John Wiley & Sons
- The R package (freely available at www.r-project.org; the latest version is R.4.0.3 - Bunny-Wunnies Freak Out; released 10-2-2020).

Supplementary Materials:

- Lawson, John. *Design and Analysis of Experiments with R*. Vol. 115. CRC press, 2014.
- Oehlert, Gary. *A First Course in Design and Analysis of Experiments*, ISBN 0-7167-3510-5 (available online)
- *Basics of R: A Primer*, by Don Edwards (available [here](#))
- "An Introduction to R" manual (available [here](#))

GRADING SCALE

A	90 – 100
B+	85 – 89
B	80 – 84
C+	75 – 79
C	70 – 74
D+	65 – 69
D	60 – 64
F	below 60

GRADING POLICY

Category	Percentage of Final Grade
Homework	20%
Unit Exams	50%
Course Project	10%
Comprehensive Final	20%

Course Objectives:

Upon successful completion of this course, students should be able to:

1. Choose an appropriate design for a specific study
2. Construct the design necessary to analyze the data
3. Develop a plan to collect data for the experiment
4. Develop and implement an appropriate model for the data
5. Interpret results for a non-technical audience
6. Use statistical software to aid in the design and analysis of experiments

Attendance: Your attendance in class is crucial to your success. You will be expected to arrive to class on time. If you arrive late, you may be marked absent. Please do not accumulate unnecessary absences. If you find it necessary to be absent, continue to follow your course schedule as outlined. If you accumulate more than six absences during the semester, you may be automatically withdrawn from the class.

Homework: There will be graded textbook homework and problem sets assigned throughout the semester. You may discuss problems informally, but each student is expected to complete his/her own work independently. All problems submitted for grading must be written or typed neatly and clearly in the order assigned. Any work that is submitted for grading must have all work shown (including any needed computer output) in order to receive credit.

Unit Exams: There are four scheduled exams in this course. These exams are designed to be completed in one class period. As a general rule, *there are no provisions for make-up exams*. Please be sure to take note of the scheduled test dates to be sure you are in class on test days. Test dates will not change.

Course Project: You will be required to complete a course project that will cover most of the material from this course. You are encouraged to work together in teams of 2-4. Details will be given later in the semester.

Computing:

We will use the statistical software environment **R** for the computing needed in this course. It is OK if you have never heard of or used **R**; you will learn by example. The **R** package is available for free at www.r-project.org; the latest version is R.4.0.3 (Bunny-Wunnies Freak Out; released 10-10-2020). The "An Introduction to R" manual available on the website is a good resource to refer to when needed.

RStudio is a free and open-source integrated development environment (IDE) for R that you may find more user friendly. After downloading R, you may decide to download RStudio at www.rstudio.com to use as your computing environment.

Comprehensive Final: All students are required to take the final exam. The final exam will cover all material from the semester.

Academic dishonesty: You will be expected to always do your own work - any cheating in any form warrants a grade of '0' for the assignment. Once assigned, this grade will not be removed under any circumstances.

Other Expectations

- You are expected to actively participate in class each day by taking notes, asking questions, and participating in any problem solving discussions.
- You are expected to show respect to me and to your fellow classmates at all times. Please make sure that cell phones are kept on vibrate or silent during class. Failure to do so may result in your being dismissed from class.
- **You are expected to put forth as much effort as is required for you to be successful in this course.** Please ask questions (in class or during office hours) if there is something that you do not understand.

**** All assignments that are submitted for grading MUST HAVE ALL WORK SHOWN in order to receive credit *****

If you have a documented physical or learning disability, you *may* get additional time for tests and the final exam. You will need to provide me with your documentation from the Office of Counseling and Testing (843-661-1840) as soon as possible, so that I can provide the proper accommodations.

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 The last day to withdraw and receive an automatic W for this class is \_\_\_\_\_. If you choose to withdraw from this class, it is your responsibility to withdraw yourself before this date. The last day to withdraw from this course and receive either a withdraw passing or withdraw failing, depending on your grade at that time, is \_\_\_\_\_.  
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Tentative Schedule of Topics

Week	Topic	Textbook Section
I	Chapter 1: Introduction	
	Strategy of Implementation, Some Typical Applications of Experimental Design; Basic Principles	1.1-1.3
	Guidelines for Designing Experiments; A Brief History of Statistical Design; Using Statistical Techniques in Experimentation	1.4-1.6
II	Chapter 2: Simple Comparative Experiments	
	Introduction; Basic Statistical Concepts	2.1-2.2
	Sampling and Sampling Distributions	2.3
	Inferences About the Differences in Means, Randomized Designs	2.4
III	Inferences About the Differences in Means, Paired Comparison Designs	2.5
	Inferences About the Variances of Normal Distributions	2.6
	Exam I	Ch 1-2
IV	Chapter 3: Experiments with a Single Factor: The Analysis of Variance	
	An Example; The Analysis of Variance	3.1-3.2
	Analysis of the Fixed Effects Model	3.3
V	Model Adequacy Checking	3.4
	Practical Interpretation of Results	3.5
	Sample Computer Output; Determining Sample Size	3.6-3.7
VI	Other Examples of Single-Factor Experiments	3.8
	The Random Effects Model	3.9
	The Regression Approach to the Analysis of Variance	3.10
	Nonparametric Methods in the Analysis of Variance	3.11
VII	Chapter 4: Randomized Blocks, Latin Squares, and Related Designs	
	The Randomized Complete Block Design	4.1
	The Latin Square Design	4.2
	Balanced Incomplete Block Designs	4.4
VIII	Exam II	Ch 3-4
	Chapter 5: Introduction to Factorial Designs	
	Basic Definitions and Principle	5.1

		The Advantage of Factorials	5.2
		The Two-Factor Factorial Design	5.3
	IX	The Two-Factor Factorial Design (cont)	5.3
		The General Factorial Design	5.4
		Blocking in a Factorial Design	5.6
	X	Chapter 6: The 2^k Factorial Design	
		Introduction; The 2^2 Design	6.1-6.2
		The 2^3 Design; The General 2^k Design	6.3-6.4
		A Single Replicate of the 2^k Design; Additional Examples of Unreplicated 2^k Designs	6.5-6.6
	XI	2^k Designs are Optimal Designs	6.7
		The Addition of Center Points to the 2^k Design	6.8
		Why We Work with Coded Design Variable	6.9
	XII	Exam III	Ch 6-7
		Chapter 7: Blocking and Confounding in the 2^k Factorial Design	
		Introduction; Blocking a Replicated 2^k Factorial Design	7.1-7.2
		Confounding in the 2^k Factorial Design; Confounding in the 2^k Factorial Design in Two Blocks	7.3-7.4
	XIII	Another illustration of Why Blocking is Important; Confounding the 2^k Factorial Design in Four Blocks	7.5-7.6
		Confounding the 2^k Factorial Design in 2^p Blocks; Partial Confounding	7.7-7.8
	XIV	Chapter 8: Two-Level Fractional Factorial Designs	
		Introduction; The One-Half Fraction of the 2^k Design	8.1-8.2
		The One-Quarter Fraction of the 2^k Design	8.3
		The General 2^{k-p} Fractional Factorial Design	8.4
	XV	Course Project/Presentation Due	
		EXAM IV	Ch 7-8
	XVI	Final Exam Week	

**FRANCIS MARION UNIVERSITY: DESCRIPTION OF PROPOSED
NEW COURSE or MODIFICATION OF AN EXISTING COURSE**

Department/School Mathematics (STAT) Date 10/6/2020

Course No. or Level 340 Title Introduction to Data Science

Semester hours 3 Clock hours: Lecture 3 Laboratory 0

Prerequisites a grade of C or higher in STAT 220

Enrollment expectation 20


Indicate any course for which this course is a (an)

modification _____
(proposed change in course title, course description, course content or method of instruction)

substitute _____
(The proposed new course replaces a deleted course as a General Education or program requirement.)

alternate _____
(The proposed new course can be taken as an alternate to an existing course.)

Name of person preparing course description Nicole Panza

Department Chairperson's/Dean's Signature 

Provost's Signature 

Date of Implementation Fall 2021

Date of School/Department approval 10/26/2020

Catalog description: See attached

Purpose: 1. For Whom (generally?) See attached
2. What should the course do for the student? See attached

Teaching method planned: Lecture

Textbook and/or materials planned (including electronic/multimedia): See attached

Course Content: (Please explain the content of the course in enough detail so that the Academic Affairs Committee can make an informed judgment.
Include a syllabus for the course.) See attached

When completed, forward to the Office of the Provost.

9/03

STAT 340 – Introduction to Data Science

Course Description: (Prerequisite: Grade of C or higher in STAT 220), S. The course will introduce students to the process of extracting insight about the world through data. This includes collecting, organizing and visualizing data, understanding statistical and machine learning methods, training these methods on a particular data set, and validating and testing the results. The methods will include both supervised and unsupervised learning. Discussions will also include the importance of the bias-variance trade-off. Though the course will make use of appropriate statistical software such as SAS, *R*, or Python, no prior coding experience is necessary.

Purpose:

For whom (generally)? This course is designed for undergraduate students pursuing a minor in Statistics. It could be taken as soon as their second year.

What should the course do for the student? Upon successful completion of this course, students should be able to:

1. Collect, import, clean, organize and visualize data from various places.
2. Implement statistical learning and machine learning methods to analyze data
3. Train data using these methods for a particular data set.
4. Test and validate the methods on a new data set and interpret results.

Teaching method planned: Lecture

Textbook and/or materials planned (including electronic/multimedia):

Required Materials:

- Textbook: Haider, M. (2015). *Getting Started with Data Science*, Pearson
- Textbook: Lantz, B, (2019). *Machine Learning with R*, 3rd Edition, Packt Publishing
 - The R package (freely available at www.r-project.org)

Course Content: (see attached syllabus)

STAT 340 – Introduction to Data Science

Dr. Nicole Panza

npanza@fmarion.edu

(843) 661-1585

Course Description: (Prerequisite: Grade of C or higher in STAT 220), S. The course will introduce students to the process of extracting insight about the world through data. This includes collecting, organizing and visualizing data, understanding statistical and machine learning methods, training these methods on a particular data set, and validating and testing the results. The methods will include both supervised and unsupervised learning. Discussions will also include the importance of the bias-variance trade-off. Though the course will make use of appropriate statistical software such as SAS, *R*, or Python, no prior coding experience is necessary.

Upon successful completion of this course, students should be able to:

1. Collect, import, clean, organize and visualize data from various places.
2. Implement statistical learning and machine learning methods to analyze data
3. Train data using these methods for a particular data set.
4. Test and validate the methods on a new data set and interpret results.

Blackboard (blackboard.fmarion.edu): Blackboard will be used exclusively to complete assignments, post materials and for reminders.

Required Materials:

- Textbook: *Getting Started with Data Science*, by Haider
- Textbook: *Machine Learning with R*, by Lantz
- The *R* Package (freely available at www.r-project.org)

Grading Scale:

Course Grade:

A	90-100%	30%Homework/Class Participation
B+	85-89%	30%Tests (2 total)
B	80-84%	40%Final Project
C+	75-79%		
C	70-74%		
D+	65-69%		
D	60-64%		
F	Below 60%		

Homework: Homework will be given for you to work through the material in the course. These assignments could include computations, written essays, graphs and code. Your code in the solution process in addition to the output result will be graded. Homework will be collected for grading roughly every two weeks. Late homework will be accepted until the start of the next class meeting after the due date for half credit. Illegible, unorganized or disorderly homework will not be accepted. Problems should be done in order with all work clearly shown and supporting technological work (code, spreadsheets, output, etc.) provided.

Group work, in-class tasks, and participation are important parts of this class. Honest effort including actively taking part in class discussions and group discussion will earn credit in this category. Unfocused, disengaged or disruptive behaviors will not earn credit in this category.

Tests: Two tests will be given to assess your knowledge of the tasks you are required to perform. Tests will be announced at least one week prior to the test date. If you have an excused absence (in writing) for an exam, the test must be taken prior to the test day. For extreme emergency situations, I must be notified within 24 hours of missing the exam and the exam must be taken within 6 days of the test date. Failure to comply with these requirements will result in a 0 for the test.

Final: All students are required to complete a final project. The project will be developed throughout the semester with graded checkpoints. The project will be to analyze a real-world problem and will consist of a written report, the code used to draw your conclusions and a presentation given during the final exam period.

Attendance: Class attendance is mandatory. For our safety, the classroom doors will be **LOCKED** after class has started. Late arrivals will not be admitted. Per the university policy, students who are absent more than 6 times may be withdrawn from the course at the discretion of the instructor. If you are absent from class you are still responsible for all notes and homework due that day.

Students with Disabilities: If you have a disability that qualifies you for academic accommodations, please request that a letter from the Office of Counseling and Testing be sent to me for verification. Contact me within the first week of class if you would like to use your accommodations.

Academic Integrity: All work including tests, codes and homework is expected to be your own. Cheating of any kind will result in zero points awarded for the assignment or exam. Cheating is considered giving or getting unauthorized assistance of any kind. Examples, though not limited to, are sharing tests and assignments with another student, using an online reference for test or homework solutions, using plagiarized code to answer test or homework problems. The offense will also be reported to the Provost. Repeat offenses will result in an F for the course.

Conduct Expectations: You are expected to be actively participating in class by taking notes and asking questions. Cell phones should be set to silent and should not be used in class for personal activities. Distractions, including phones may be confiscated for the remainder of the class period and could result in an absence. Respect is to be shown in all aspects of the course. This includes class sessions, e-mail and Blackboard communications.

Getting Help:

- Visit Office Hours: Start work early and come to office hours with specific questions and all work to use our time efficiently.

Important Dates:

Instructor reserves the right to change the syllabus at any time.

Week	Topic
I	Haider Chapter 1, Chapter 2
	Getting started in data science, what makes someone a data scientist?
	Types of Data
II	Haider Chapter 3, Chapter 4
	The narrative: What are the questions? What answers are needed?
	Percentages, data cleaning
	Weighted data, cross tabulations
III	Seeing data sets and generating output
	Haider Chapter 5, Lantz Chapter 2
	Visual representations of data
	Visual representations of data
IV	Lantz Chapter 3
	Classification using Nearest Neighbors: The algorithm
	Preparing the data for the method
	Training, evaluating and improving
V	Lantz Chapter 4
	Classification using Naïve Bayes: The algorithm
	Preparing the data for the method
	Training, evaluating and improving
VI	Review
	Exam 1
	Lantz Chapter 5
	Classification using Decision Trees: The algorithm
VII	Preparing the data for the method
	Training, evaluating and improving
	Lantz Chapter 6
	Regression Models
VIII	Linear Regression and Least Squares
	Preparing the data for the method
	Training, evaluating and improving
IX	Regression Trees
	Preparing the data for the method
	Training, evaluating and improving
X	Chapter 9: Categorically Speaking About Categorical Data
	Introducing categorical data
	Types of models for categorical data
	Applications of categorical data
XI	Lantz Chapter 10
	Evaluating model performance
	Measuring performance for classification
	Estimating future performance
XII	Lantz Chapter 11
	Improving model performance
	Improving model performance
	Review
XIII	Test 2
	Haider Chapter 11
	Introducing time series data
	Types of models and applications for time series data
XIV	Seven steps down the data mine

		Rattle your data
		Case Studies
	XV	Final Project Work Day
		<i>Final Exam Week</i>

**FRANCIS MARION UNIVERSITY: DESCRIPTION OF PROPOSED
NEW COURSE or MODIFICATION OF AN EXISTING COURSE**

Department/School Mathematics Date October 26, 2020

Course No. or Level 421 Title MATH 421 - Mathematical Statistics

Semester hours 3 Clock hours: Lecture 3 Laboratory 0

Prerequisites Math 306 and a grade of C or higher in Math 312 and a grade of C or higher in either Math 230 or 311

Enrollment expectation 20

Indicate any course for which this course is a (an)

modification _____
(proposed change in course title, course description, course content or method of instruction)

substitute _____
(The proposed new course replaces a deleted course as a General Education or program requirement.)

alternate _____
(The proposed new course can be taken as an alternate to an existing course.)

Name of person preparing course description Sophia D. Waymyers

Department Chairperson's/Dean's Signature The Fifth

Provost's Signature Peter King

Date of Implementation Fall 2021

Date of School/Department approval 10/26/2020

Catalog description: see attached

Purpose: 1. For Whom (generally?) see attached
2. What should the course do for the student?

Teaching method planned: Lecture

Textbook and/or materials planned (including electronic/multimedia): see attached

Course Content: (Please explain the content of the course in enough detail so that the Academic Affairs Committee can make an informed judgment.
Include a syllabus for the course.) see attached

When completed, forward to the Office of the Provost.

9/03

**FRANCIS MARION UNIVERSITY: DESCRIPTION OF PROPOSED
NEW COURSE or MODIFICATION OF AN EXISTING COURSE**

Department/School Mathematics (STAT) Date October 26, 2020

Course No. or Level 421 Title STAT 421 - Mathematical Statistics

Semester hours 3 Clock hours: Lecture 3 Laboratory 0

Prerequisites Math 306 and a grade of C or higher in Math 312 and a grade of C or higher in either Math 230 or 311

Enrollment expectation 20

Indicate any course for which this course is a (an)

modification _____
(proposed change in course title, course description, course content or method of instruction)

substitute _____
(The proposed new course replaces a deleted course as a General Education or program requirement.)

alternate _____
(The proposed new course can be taken as an alternate to an existing course.)

Name of person preparing course description Sophia D. Waymyers

Department Chairperson's/Dean's Signature _____

Provost's Signature _____

Date of Implementation Fall 2021

Date of School/Department approval _____

Catalog description: see attached

Purpose: 1. For Whom (generally?) see attached
2. What should the course do for the student?

Teaching method planned: Lecture

Textbook and/or materials planned (including electronic/multimedia): see attached

Course Content: (Please explain the content of the course in enough detail so that the Academic Affairs Committee can make an informed judgment.
Include a syllabus for the course.) see attached

When completed, forward to the Office of the Provost.

9/03

STAT 421 – Mathematical Statistics

Mathematics Department

Course Description: (Prerequisite: Math 306 and a grade of C or higher in Math 312 and a grade of C or higher in either Math 230 or 311) S. The course will cover topics of statistical inference including point estimators, confidence intervals, minimum variance unbiased estimation, method of maximum likelihood estimation, large sample theory, hypothesis testing, and power of statistical tests.

Purpose:

For whom? This course is designed for third and fourth year undergraduate students pursuing a minor in statistics or mathematics or those pursuing a major in mathematics.

What should the course do for the student? Upon successful completion of this course, students should be able to:

1. Derive and interpret point estimators
2. Derive and interpret interval estimates
3. Determine the quality of various statistical estimators
4. Formulate and interpret statistical hypotheses
5. Determine the statistical power of tests

Teaching Method planned: Lecture

Textbook and/or materials planned (including electronic/multimedia):

Required Materials:

- Textbook : Wackerly, D., Mendenhall, W., & Scheaffer, R. L. (2008). *Mathematical statistics with applications*. Cengage Learning

Supplementary Materials:

- Hogg, R. V., Tanis, E. A., & Zimmerman, D. L. (2010). *Probability and statistical inference*. Upper Saddle River, NJ, USA:: Pearson/Prentice Hall.

Course Content: (see attached syllabus)

STAT 421 – Mathematical Statistics

Course Description: (Prerequisite: Math 306 and a grade of C or higher in Math 312 and a grade of C or higher in either Math 230 or 311), S. The course will cover topics of statistical inference including point estimators, confidence intervals, minimum variance unbiased estimation, method of maximum likelihood estimation, large sample theory, hypothesis testing, and power of statistical tests.

Instructor: Dr. Sophia Waymyers

Office: LSF 409G

Phone: 661-1587

Email: SWaymyers@fmarion.edu

OFFICE HOURS

Monday	Tuesday	Wednesday	Thursday	Friday

Required Materials:

- Textbook : Wackerly, D., Mendenhall, W., & Schaeffer, R. L. (2008). *Mathematical statistics with applications*. Cengage Learning

Supplementary Materials:

- Hogg, R. V., Tanis, E. A., & Zimmerman, D. L. (2010). *Probability and statistical inference*. Upper Saddle River, NJ, USA:: Pearson/Prentice Hall.

GRADING SCALE

A	90 – 100
B+	85 – 89
B	80 – 84
C+	75 – 79
C	70 – 74
D+	65 – 69
D	60 – 64
F	below 60

GRADING POLICY

Category	Percentage of Final Grade
Homework/Problem Sets	30%
Unit Exams	50%
Comprehensive Final	20%

Course Objectives:

Upon successful completion of this course, students should be able to:

1. Derive and interpret point estimators
2. Derive and interpret interval estimates
3. Determine the quality of various statistical estimators
4. Formulate and interpret statistical hypotheses
5. Determine the statistical power of tests

Attendance: Your attendance in class is crucial to your success. You will be expected to arrive to class on time. If you accumulate more than six absences during the semester, you may be automatically withdrawn from the class.

Homework/Problem Sets : There will be graded textbook homework and problem sets assigned throughout the semester. You may discuss problems informally, but each student is expected to complete his/her own work independently. All problems submitted for grading must be written or typed neatly and clearly in the order assigned. Any work that is submitted for grading must have all work shown (including any needed computer output) in order to receive credit.

Unit Exams: There are three scheduled exams in this course. These exams are designed to be completed in one class period. As a general rule, *there are no provisions for make-up exams*. Please be sure to take note of the scheduled test dates to be sure you are in class on test days. Test dates will not change.

Comprehensive Final: All students are required to take the final exam. The final exam will cover all material from the semester.

Academic dishonesty: You will be expected to always do your own work - any cheating in any form warrants a grade of '0' for the assignment. Once assigned, this grade will not be removed under any circumstances.

Other Expectations

- You are expected to actively participate in class each day by taking notes, asking questions, and participating in any problem solving discussions.
- You are expected to show respect to me and to your fellow classmates at all times. Please make sure that cell phones are kept on vibrate or silent during class. Failure to do so may result in your being dismissed from class.
- **You are expected to put forth as much effort as is required for you to be successful in this course.** Please ask questions (in class or during office hours) if there is something that you do not understand.

If you have a documented physical or learning disability, you *may* get additional time for tests and the final exam. You will need to provide me with your documentation from the Office of Counseling and Testing (843-661-1840) as soon as possible, so that I can provide the proper accommodations.

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The last day to withdraw and receive an automatic W for this class is \_\_\_\_\_. If you choose to withdraw from this class, it is your responsibility to withdraw yourself before this date. The last day to withdraw from this course and receive either a withdraw passing or withdraw failing, depending on your grade at that time, is \_\_\_\_\_.  
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Tentative Schedule of Topics

Week	Topic	Textbook Section
I	Chapter 1: What is Statistics?	
	Introduction; Characterizing a Set of Measurements: Graphical Methods; Characterizing a Set of Measurements: Numerical Methods	1.1-1.3
	How Inferences Are Made; Theory and Reality; Summary	1.4-1.6
	Review of probability topics	
II	Chapter 8: Estimation	
	Introduction; The Bias and Mean Square Error of Point Estimators.	8.1-8.2
	Some Common Unbiased Point Estimators	8.3
	Evaluating the Goodness of Point Estimators	8.4
III	Confidence Intervals.	8.5
	Large-Sample Confidence Intervals	8.6
IV	Selecting the Sample Size	8.7
	Small-Sample Confidence Intervals for μ and $\mu_1 - \mu_2$.	8.8
V	Confidence Intervals for σ^2 ; Summary	8.9-8.10
	Exam I	Ch 8
VI	Chapter 9: Properties of Point Estimators and Methods of Estimation	
	Introduction; Relative Efficiency	9.1-9.2
	Consistency	9.3
VII	Sufficiency	9.4
	The Rao-Blackwell Theorem and Minimum-Variance Unbiased Estimation.	9.5
VIII	The Method of Moments	9.6
	The Method of Maximum Likelihood	9.7
	Summary	9.9

	IX	EXAM II	Ch 9
		Chapter 10: Hypothesis Testing	
		Introduction; Elements of a Statistical Test	10.1-10.2
	X	Common Large-Sample Tests	10.3
		Calculating Type II Error Probabilities and Finding the Sample Size for Z Tests	10.4
	XI	Relationships Between Hypothesis-Testing Procedures and Confidence Intervals	10.5
		6 Another Way to Report the Results of a Statistical Test: Attained Significance Levels, or p-Values	10.6
	XII	Some Comments on the Theory of Hypothesis Testing	10.7
		Small-Sample Hypothesis Testing for μ and $\mu_1 - \mu_2$	10.8
	XIII	Testing Hypotheses Concerning Variances (Optional)	10.9
		Power of Tests and the Neyman–Pearson Lemma	10.10
	XIV	Likelihood Ratio Tests; Summary	10.11-10.12
		EXAM III	Ch 10
	XV	Additional Topics	
	XVI	Final Exam Week	

**FRANCIS MARION UNIVERSITY: DESCRIPTION OF PROPOSED
NEW COURSE OR MODIFICATION OF AN EXISTING COURSE**

X New Course Modification

Department/School Sociology Date 11/17/20

Graduate or Undergraduate Course: Undergraduate

Course No. or Level 384 Title Education and Society

Semester hours 3 Clock hours: Lecture 3 Laboratory

Prerequisites SOCI 201 or permission of the department

Enrollment expectation 30

Indicate any course for which this course is a (an)

modification

substitute

alternate

Name of person preparing course description Dr. Lisa A. Eargle

Department Chairperson's/Dean's Signature Jerrica Dancer

Provost's Signature Peter King

Date of Implementation Fall 2021

Date of School/Department approval 12/4/20

Catalog description: This course examines the structure and operation of the education system, primarily in the United States. Several issues will be addressed including: theoretical perspectives on education's role in society; how schools interact with other social institutions, such as the family, economy, politics, and religion; funding sources and variety of educational institutions; factors affecting student performance; issues of access and inequality among different social and demographic groups; and public policies affecting educational outcomes.

Purpose: 1. For Whom (generally?)

Students who are seeking a major, minor, collateral in Sociology, or who have an interest in understanding education as a social institution in society

2. What should the course do for the student?

It will provide students with the theoretical and methodological tools needed to understand education as a social institution, with its important functions and impacts on most aspects of society. Students will also be exposed to the important issues and challenges facing education today and expected in the future.

Teaching method planned:

Lecture and discussion

Textbook and/or materials planned (including electronic/multimedia):

The Sociology of Education, 8th edition. Jeanne Ballantine. 2017. Taylor and Francis
Schools and Society: A Sociological Approach to Education, 6th edition. Edited by J. Ballantine, J. Spade, and J. Stuber. 2018. Sage publications.

Course Content:

1. Theoretical perspectives in the Sociology of Education
2. Research methods for studying education
3. Education environments
4. Schools as organizations
5. Roles and responsibilities in education: administrators, teachers, and students
6. What is taught in schools: Knowledge for what and whom
7. Who gets ahead? Race, class and gender in education
8. Education and opportunity: Attempts at equality and equity
9. Higher education
10. Globalization and education: Comparing different education systems
11. Educational reforms and changes

SOCI 384 – SOCIOLOGY OF EDUCATION

Course time/location: MW 2:30-3:45 in FH251C
Instructor: Dr. Lisa A. Eargle, Professor of Sociology
Office and Office Hours: FH 240; Monday through Friday, 9:30-11:30; also by appointment
Phone and e-mail: (843) 661-1653 and leargle@fmarion.edu

MATERIALS REQUIRED

Textbooks -- *The Sociology of Education, 8th edition.* Jeanne Ballantine. 2017. Taylor and Francis.
Schools and Society, 6th edition. Edited by Jeanne Ballantine, Joan Spader, and Jenny Stuber. 2018. Sage.

Other readings and handouts will be provided by the instructor

COURSE PREREQUISITES

A passing grade in SOCI 201.

COURSE DESCRIPTION

This course examines the structure and operation of the education system, primarily in the United States. Several issues will be addressed including: theoretical perspectives on education's role in society; how schools interact with other social institutions, such as the family, economy, politics, and religion; funding sources and variety of educational institutions; factors affecting student performance; issues of access and inequality among different social and demographic groups; and public policies affecting educational outcomes.

CLASSROOM CIVILITY

This is a college class and students should conduct themselves accordingly. This means no talking out of turn, sleeping, inappropriate remarks, working on other assignments, copying missed notes, use of cell phones or other electronic devices, coming and going at will, or throwing objects during class. *Failure to observe these standards may result, at the discretion of the instructor, in penalties up to and including dismissal from class and the filing of a disciplinary report with the Dean of Students.*

CIVILITY AT and IN THE PROFESSOR'S OFFICE

The Professor's office is a professional's private space, and you are expected to conduct yourself appropriately. This means: (1) You will enter a professor's office only after knocking on the door and being invited by the professor to enter; (2) While in the professor office, you will have your cell phone turned off and will not carry on conversations with friends, family, etc.; and (3) When in the professor's office, you will not take pens, paper, books, sodas, etc. without the professor's permission. *Failure to observe these standards will result in your being asked to leave the professor's office, the filing of a disciplinary report with the Dean of Students, and possibly being reported to the campus police.*

ACADEMIC INTEGRITY

Per the regulations discussed in the FMU Student Handbook, students are expected to engage in behaviors and activities that adhere to the standards of academic integrity. Any student that engages in academic dishonesty in this course (such as cheating on exams, plagiarizing someone else's work, or helping someone else to cheat/plagiarize) will receive a grade of zero for that assignment. The incident

will also be reported to the Provost's Office and, depending upon the number of prior incidents on the student's record, additional penalties may be imposed by the University.

COURSE ASSIGNMENTS

During the semester, 5 exams, a research paper, and oral presentation will be assigned. Attendance will also be taken at every class. A detailed description of each assignment and its role in determining final course grades is provided below.

EXAMS

There will be 5 in-class written examinations (see "Tentative Course Schedule" for their dates). Each exam will be closed notes and closed textbook. All exams will be noncumulative. Each exam will consist of 10 short answer and 6 essay questions. The short answer questions are worth 4 points each; essay questions are worth 10 points each.

There will be a review sheet, check list, or study guide provided by the instructor. You will need to purchase/rent the textbooks required for this course and fully **READ** the book chapters to prepare for the exams.

You will NOT be allowed to choose which questions you will have to answer on the exam. **There will be NO substitution of questions with other questions on the exams.** Furthermore, there will be multiple versions of the exams and you will NOT be allowed to choose which version of the exam that you receive.

Only students for whom the Office of Counseling and Testing has provided a request for accommodations will be allowed extra time to take exams, an alternate testing environment, etc. All other students will be required to complete examinations during the regular class time period in the regular classroom.

NO Make-up exams will be given in this course. Per University regulations, **ALL** students are **REQUIRED** to take the final exam. **NO EXCEPTIONS.** All final exams must be taken at the scheduled time and date for the class. Those showing up late, after the class has finished the exam, will NOT be allowed to take the final exam.

Exam grades will NOT be dropped or curved. Each exam is worth 100 out of 700 points of your final grade.

PROFILE PAPER

You will select an important person, organization, or event for educational issues to examine in your paper. If you select an individual to examine in your paper, you should describe the characteristics of that person, the type of position and responsibilities that person had in an organization, the kinds of activities he/she engaged in, reasons why he/she engaged in these activities, and the consequences his/her activities on education and society. Be sure to include relevant theories in your paper or you will lose points.

If you select an organization to examine in your paper, you should discuss how the organization is structured (positions, roles), the characteristics of people involved in this organization, the kinds of activities the organization participates in/sponsors, the impact this organization has on the trafficking and society, and how their activities have been supported or combated by the government, law enforcement, and other organizations. You should also discuss why this organization exists and how it functions. Be sure to include relevant theories in your paper or you will lose points.

If you select an event, you should discuss important aspects or characteristics of the event, who or what was involved in the event, explanations for why the event occurred, its impact on education and society, and ways of dealing with this type of event. Be sure to use relevant theories in your paper or you will lose points.

The profile paper must be 3 pages long, *single spaced*, 12 point font, with 1 inch margins, and will be worth 100 points toward the final course grade. **The papers are due APRIL 10 during class time. You must deliver the paper to Dr. Eargle IN PERSON (NO emailing of papers). NO LATE PAPERS WILL BE ACCEPTED.** Paper pages must be stapled together.

Students who do not submit papers will not be allowed to give a presentation, which will result in a grade of zero for 200 points towards their final course grade (100 points for the paper and 100 points for the presentation). This means those students will most likely fail the course.

All references used in the writing of this paper, including the textbook, should be cited using the American Sociological Association (ASA) format. Papers that do NOT contain both citations AND reference page will be assigned a grade of ZERO. The 3-page length requirement does NOT include the reference and title/cover pages. 20 points will be subtracted from the paper grade for every page it is short of the required 3 pages. Also, submit supporting documents. You must use at least 5 references or you will lose points for each reference your paper is short of the 5.

PRESENTATION

Each person will also give a 5-minute Power Point presentation to the class on their project. **Those who did not submit a paper on April 10 will NOT be allowed to give a presentation.** Not producing a paper on time will result in a zero for a total of 200 points of your final grade -- 100 for the paper and 100 for the presentation.

A sign-up sheet of presentation dates will be circulated in class. **There will be NO make-ups for the class presentation. The presentation is worth 100 points of your final grade.** Your presentation will be graded according to the quality of the Power Point show and your delivery of the presentation. Turning in a copy of your Power Point show alone will **NOT** suffice; you must orally deliver the presentation in front of the class to receive any presentation points.

<u>Criteria for Power Point Show</u>	<u>Points Worth</u>
Title page	2
Font (right size and type for audience to easily see)	2
Slide background color (clear contrast with type)	2
Slides uncluttered	2
No audio clips allowed (often fail to work, speech avoidance technique)	0
No cascading sentences/titles (they are a distraction)	2
Slides address major points from <u>each</u> part of paper	16
Right number of slides (8 slides minimum and 12 slides maximum)	2
Any photos or diagrams used are easy to see	2
Sub-total:	30 points
<u>Criteria for Speaker Delivery</u>	
Ability to explain paper parts correctly	20
Covered all parts of the paper in the presentation	20
Spoke clearly and loud enough for the audience to hear	5
Looked at audience occasionally	5
Did not read the presentation notes verbatim (spoke freely)	5
Came appropriately dressed (i.e. business attire) for the presentation	5
Exhibited an appropriate attitude (i.e. pleasant but serious) about the presentation	5

Addressed any audience questions about paper
Spoke the required length of time (5 minutes)**

5

0

Sub-total: 70 points

Maximum Total Points Possible = 100

** I will deduct 10 points from your presentation grade for each minute that your presentation is shy of 5 minutes. I will also deduct points if your presentation exceeds 8 minutes. Practice the presentation at home until you get it the right length**

ATTENDANCE

Attendance will be taken during each class meeting, *including* the first day of class. It is your responsibility to make sure you have signed the attendance sheet before leaving class.

If you need to drop this course, it is your responsibility to email me, to request a withdrawal, by the appropriate date to automatically receive a W. Then I will send the Registrar an email requesting your withdrawal.

COURSE GRADES

Final course grades will be determined by the summation of your exam, paper, and presentation grades. Final course letter grades will be assigned as follows:

A = 630 to 700 points B+ = 602 to 629 points B = 560 to 601 points C+ = 532 to 559 points
C = 490 to 531 points D+ = 462 to 489 points D = 420 to 461 points F = 419 and fewer points

Final course grades will not be curved. Grades of Incomplete will not be assigned (See Academic Calendar website or in Schedule of Courses for drop dates). Extra credit work will not be accepted.
Grades are nonnegotiable – you will receive what you have earned.

**FRANCIS MARION UNIVERSITY: DESCRIPTION OF PROPOSED
NEW COURSE OR MODIFICATION OF AN EXISTING COURSE**

 New Course X Modification

Department/School Sociology Date 1/7/2021

Graduate or Undergraduate Course: Undergraduate

Course No. or Level: 375 Title Sociology of Health and Medicine

Semester hours 3 Clock hours: Lecture 3 Laboratory 0

Prerequisites 201 or permission of department

Enrollment expectation 30

Indicate any course for which this course is a (an)

Modification SOCI 375 (Changing course description to reflect deletion of IPHC 375 from the catalog)

substitute

alternate

Name of person preparing course description Jessica Doucet

Department Chairperson's/Dean's Signature *J. Doucet*

Provost's Signature *Pete King*

Date of Implementation Fall 2021

Date of School/Department approval 12/4/2020

Catalog description: Trends and group differences in health and illness; theoretical perspectives on health; the sick role; seeking and using health services; patient-practitioner relationships; caregiving issues; social organization of healthcare systems; international and cultural differences; medicalization of chronic conditions; current issues and problems.

- Purpose:
1. For Whom (generally?)
 2. What should the course do for the student?

Teaching method planned:

Textbook and/or materials planned (including electronic/multimedia):

Course Content: This is a change to the course description, removing a cross-listed course that has been deleted from the catalog. The course content remains the same.

**FRANCIS MARION UNIVERSITY: DESCRIPTION OF PROPOSED
NEW COURSE OR MODIFICATION OF AN EXISTING COURSE**

 New Course X Modification

Department/School Sociology Date 1/7/2020

Graduate or Undergraduate Course: Undergraduate

Course No. or Level: 496 Title Sociology Capstone Experience

Semester hours 1 Clock hours: Lecture 1 Laboratory 0

Prerequisites Prerequisite/Corequisite: 403; Prerequisite: Senior standing; declared sociology major, and permission of department

Enrollment expectation 30

Indicate any course for which this course is a (an)

Modification SOCI 496 (Changing course prerequisites)

substitute

alternate

Name of person preparing course description Jessica Doucet

Department Chairperson's/Dean's Signature Jessica Doucet

Provost's Signature Peter King

Date of Implementation Fall 2021

Date of School/Department approval 12/4/2020

Catalog description: This course will be used as a final step towards preparing seniors for the job market or graduate school. An examination of potential careers, professional goals, and application materials, and employment/graduate school searches will occur. Students will also participate in an assessment of learning outcomes via an exit exam.

- Purpose:
1. For Whom (generally?)
 2. What should the course do for the student?

Teaching method planned:

Textbook and/or materials planned (including electronic/multimedia):

Course Content: This is a change to the course prerequisites, adding SOCI 403 as a prerequisite/corequisite to ensure students are prepared for the course. The course content remains the same.

**FRANCIS MARION UNIVERSITY: DESCRIPTION OF PROPOSED
NEW COURSE or MODIFICATION OF AN EXISTING COURSE**

Check the appropriate box: ☐ New Course ☒ Course Modification

Department/School Biology/CLA Date 01/14/2021

Course No. or Level 412 Title Animal Behavior

Semester hours 4 Clock hours: Lecture 3 Laboratory 1

Prerequisites 105/115 or 107 and 106 or 108 and junior status or permission of the department

Enrollment expectation 18-24

Indicate any course for which this course is a (an)

modification Title changed from BIOL 412: Behavioral Ecology
(proposed change in course title, course description, course content or method of instruction)

substitute _____
(The proposed new course replaces a deleted course as a General Education or program requirement.)

alternate _____
(The proposed new course can be taken as an alternate to an existing course.)

Name of person preparing course description Paul/Zwiers

Department Chairperson's/Dean's Signature Verna W. Bauer

Provost's Signature Peter King

Date of Implementation Fall 2021

Date of School/Department approval January 18, 2021

Catalog description:

412 Animal Behavior (4:3-3) (Prerequisites: 106 and junior status or permission of the department) Topics within ecology and evolution combine as students examine the adaptive significance of behavior. Key concepts include altruism and selfishness, evolutionary stable strategies and game theory, co-evolution, predation and predator avoidance, competition, sexual selection, parental care and conflict, communication, and human behavior. Students will explore relevant primary literature and develop and test hypotheses in topic-specific laboratories.

Purpose:

1. For Whom (generally?) Biology majors
2. What should the course do for the student? This course will teach students content concerning the motivations for animal behavior. In doing so, students will learn how to critically evaluate topics, effectively communicate their thoughts, and design and perform research projects.

Teaching method planned:

Teaching methods include small group work, class discussions, and lectures. Topics are derived primarily from readings assigned from the textbook, "The Selfish Gene" by Richard Dawkins, and primary literature. Additional topics may come from podcasts, videos, and student interest. Laboratories ask students to design and execute research projects that test introduced principles.

Textbook and/or materials planned (including electronic/multimedia):

Davis N., Krebs J., West S., *An Introduction to Behavioural Ecology*, Wiley-Blackwell.
Dawkins R., *The Selfish Gene*, Oxford University Press.

Course Content: (Please explain the content of the course in enough detail so that the Academic Affairs Committee can make an informed judgement.
Include a syllabus for the course.)

This course examines theories and topics within behavioral ecology including natural selection and environmental pressures, decision making, when to compete and when to give up, benefits of living in groups, evolution of mating systems, sexual selection, parental care and competition among offspring and with parents, whether truly altruistic behaviors exist, formation of cooperative relationships, and human behavior.

When completed, forward to the Office of the Provost.

**FRANCIS MARION UNIVERSITY: DESCRIPTION OF PROPOSED
NEW COURSE or MODIFICATION OF AN EXISTING COURSE**

Check the appropriate box: ☐ New Course ☒ Course Modification

Department/School Biology/CLA Date 01/14/2021

Course No. or Level 406 Title Human
Physiology

Semester hours 4 Clock hours: Lecture 3 Laboratory 1

Prerequisites 105/115 or 107 and 106 or 108 and 205 or 305 and Chemistry 201 or permission
of the department

Enrollment expectation 18-24

Indicate any course for which this course is a (an)

modification Title changed from BIOL 406: Physiology
(proposed change in course title, course description, course content or method of instruction)

substitute _____
(The proposed new course replaces a deleted course as a General Education or program
requirement.)

alternate _____
(The proposed new course can be taken as an alternate to an existing course.)

Name of person preparing course description Shayna Wrighten

Department Chairperson's/Dean's Signature Verna W. Bauer

Provost's Signature Peter King

Date of Implementation Fall 2021

Date of School/Department approval January 18, 2021

Catalog description:

406 Human Physiology (4:3-3) (Prerequisite: 105/115 or 107 and 106 or 108 and 205 or 305 and Chemistry 201 or permission of the department) The normal structure and function of the major organ systems of the human body. Physical and chemical concepts such as bioenergetics and enzyme function will be covered. Credit cannot be given for both Biology 236 and 406.

Purpose:

1. For Whom (generally?) Biology majors

2. What should the course do for the student? Introduce students to the structure and function of the human body.

Teaching method planned:

Three hours of lecture each week. Lectures will be a mix of PowerPoint, group projects, and student presentations. Labs will give students practical experience in physiological concepts.

Textbook and/or materials planned (including electronic/multimedia):

Stanfield, C., *Principles of Human Physiology*, Pearson

Course Content: (Please explain the content of the course in enough detail so that the Academic Affairs Committee can make an informed judgement. Include a syllabus for the course.)

This course will introduce the student to basic principles of human physiology. In this course, we will study various topics of body function. By the end of the course you should have an understanding of how the covered body systems work, how the body systems interact with one another, and be able to solve patient case studies. This course will also introduce you to techniques used in physiology. It is also an objective of this course to familiarize you with designing, carrying out, and presenting lab experiments.

When completed, forward to the Office of the Provost.

FRANCIS MARION UNIVERSITY: DESCRIPTION OF PROPOSED NEW COURSE or MODIFICATION OF AN EXISTING COURSE

Check the appropriate box: ☐ New Course ☒ Course Modification

Department/School Biology/CLA Date 01/14/2021

Course No. or Level 413 Title Biostatistics and Research
Methods _____

Semester hours 3 Clock hours: Lecture 3 Laboratory _____

Prerequisites 105/115 or 107 and 106 or 108, and Math 132 or higher, or permission of the
department _____

Enrollment expectation 10-16

Indicate any course for which this course is a (an)

modification Title changed from BIOL 413: Biological Research
Methods _____
(proposed change in course title, course description, course content or method of instruction)

substitute _____
(The proposed new course replaces a deleted course as a General Education or program
requirement.)

alternate _____
(The proposed new course can be taken as an alternate to an existing course.)

Name of person preparing course description Jeff Steinmetz

Department Chairperson's/Dean's Signature Verna W. Bauer

Provost's Signature Peter King

Date of Implementation Fall 2021

Date of School/Department approval January 18, 2021

Catalog description:

413 Biostatistics and Research Methods (3) (Prerequisite: 105/115 or 107 and 106 or 108, and Math 132 or higher, or permission of the department) AS. Experimental design and analysis for the biological sciences. Covers considerations in designing experiments as well as appropriate statistical analysis for each design. Designs and analysis from a variety of biological fields will be covered.

Purpose:

1. For Whom (generally?) Biology majors
2. What should the course do for the student? To introduce students to sound principles of experimental design and analysis to better prepare them to both read scientific literature and/or conduct their own research.

Teaching method planned:

Three hours of lecture each week. Lectures will be a mix of PowerPoint, classroom activities, computer simulations, and exercises using simulation, statistical and graphing software. Some classes will occur in the biology computer lab.

Textbook and/or materials planned (including electronic/multimedia):

Havel, J.E., Hampton, R.E. and S.J. Meiners. *Introductory Biological Statistics*, Waveland Press, Inc.

Course Content: (Please explain the content of the course in enough detail so that the Academic Affairs Committee can make an informed judgement.

Include a syllabus for the course.)

All scientists must have a basic understanding of experimental design and statistics. Some scientists actively use these concepts and skills in their professional career. Others, such as doctors, vets, dentists, etc., may not use them every day but are expected to keep up with the latest developments in their field. This will mean reading medical and scientific journals and being able to understand the results in such a way that they can make informed decisions and on new medicines, procedures, etc. This class is designed to give you the skills that you will need to be successful in this part of your career.

When completed, forward to the Office of the Provost.

Check the appropriate box: ☐ New Course ☒ Course Modification

Course No. or Level 490 Title Veterinary Studies Internship

Prerequisites 105/115 or 107 and 106 or 108 and 205 or 305 and Chemistry 201 or permission of the department _____

Indicate any course for which this course is a (an)

substitute _____
(The proposed new course replaces a deleted course as a General Education or program requirement.)

Name of person preparing course description / Tamatha Barbeau

Department Chairperson's/Dean's Signature Verna W. Bauer

Provost's Signature Peter King

Date of Implementation Fall 2021 ✓

Date of School/Department approval _____ January 18, 2021 _____

490 Veterinary Studies Internship (1) or (2) (Prerequisite: Permission of the department). The student gains practical experience working with live animals under the supervision of a trained animal professional. A maximum of 3 semester hours may be earned. Earned hours do not fulfill the requirements of biology electives for a biology major, minor, or collateral.

Purpose:

1. For Whom (generally?) Biology students interested in gaining experience in working with animals in a professional capacity.
2. What should the course do for the student? Provide students with the opportunity to experience with veterinary medicine under the supervision of a practicing veterinarian, or to provide students with the experience of working with animals in a non-veterinary capacity. (Non-veterinary capacity includes, but is not limited to, support careers in animal health, animal training, animal grooming, zookeeping, humane society work, non-profit animal conservation organizations, non-profit wildlife rehabilitators, pest control services, and nuisance wildlife technician.

Teaching method planned:

All students enrolling in the internship are required to attend an orientation session with the Veterinary Studies Coordinator. Additional orientation and training will be provided on-site at the internship facilities involved. Students are expected to be at the internship site a minimum of 3 hours per week for the duration of the semester.

Textbook and/or materials planned (including electronic/multimedia):

No textbook or materials are required for this course.

Course Content: (Please explain the content of the course in enough detail so that the Academic Affairs Committee can make an informed judgement.
Include a syllabus for the course.)

Enrolled students enrolled will complete the course on-site at the professional animal facility approved by the course coordinator. Students will work alongside experienced animal care professionals in order to gain experience in that profession, which is experience that cannot be gained in a traditional educational classroom. Enrolled students will submit a weekly journal of their experience and knowledge gained to the course coordinator. At the end of the course students will submit a Student Intern End-of-the-Year Questionnaire, and their intern supervisor will submit a Student Intern Evaluation form.

When completed, forward to the Office of the Provost.

**FRANCIS MARION UNIVERSITY: DESCRIPTION OF PROPOSED
NEW COURSE or MODIFICATION OF AN EXISTING COURSE**

Check the appropriate box: ☒ New Course ☐ Course Modification

Department/School Biology/CLA Date 01/14/2021

Course No. or Level 217 Title Principles of Animal Nutrition

Semester hours 3 Clock hours: Lecture 3 Laboratory _____

Prerequisites 105/115 or 107 and 106 or 108 or permission of the department

Enrollment expectation 18-24

Indicate any course for which this course is a (an)

modification _____
(proposed change in course title, course description, course content or method of instruction)

substitute _____
(The proposed new course replaces a deleted course as a General Education or program requirement.)

alternate _____
(The proposed new course can be taken as an alternate to an existing course.)

Name of person preparing course description Vernon Bauer

Department Chairperson's/Dean's Signature Vernon W. Bauer

Provost's Signature Pete King

Date of Implementation Fall 2021

Date of School/Department approval January 18, 2021

Catalog description:

217 Principles of Animal Nutrition (3) (Prerequisite: 105/115 or 107 and 106 or 108 or permission of the department) An introduction to the principles of animal nutrition. General topics will include the nutritional requirements of animals, the mechanisms animals use for nutrient digestion, absorption and metabolism, and the nutrient composition and formulation of animal feeds.

Purpose:

1. For Whom (generally?) Biology majors
2. What should the course do for the student? Upon completing this course, undergraduate students should be able to discuss historical perspective and define the major

terminologies used in animal nutrition. Compare and contrast the functional anatomy of the gastrointestinal systems of animals. Understand various enzymatic and metabolic processes involved in nutrient digestion and metabolism.

Teaching method planned:

Three hours of lecture each week. Lectures will be a combination of PowerPoint and classroom activities.

Textbook and/or materials planned (including electronic/multimedia):

Wu, G., *Principles of Animal Nutrition*. CRC Press.

Course Content: (Please explain the content of the course in enough detail so that the Academic Affairs Committee can make an informed judgement.
Include a syllabus for the course.)

This course will focus on the basic principles of animal nutrition including: the anatomy and physiology of the digestive system, the chemical characteristics of various food ingredients, the digestion, absorption, and metabolism of those nutrients, the role of microorganisms in digestion, and the composition and production of animal feeds.

When completed, forward to the Office of the Provost.

BIOL 217
PRINCIPLES OF ANIMAL NUTRITION
Spring 2021
M W F, 8:30 – 9:20 AM
Room LSF 101

Instructor:

Dr. F.M. Biology – Assistant Professor of Biology
Office: 301 MSB
Office hours: T and TH 10:30 – 11:20
Phone: 843 661 9999
E-mail: d.o.mesticus@fmarion.edu

Catalog description:

Credits: 3; Prerequisites: BIOL106 and CHEM102. Overview of the digestion and absorption of nutrients required by animals, nutrient digestion and absorption, comparative gastrointestinal anatomy, nutritional analyses, and diet formulation.

General scope:

This course is taught as an introduction to animal nutrition, with emphasis on domesticated animals (companion and production animals), but also covering wild animals.

Learning objectives:

Upon completing this course, undergraduate students should be able to:

1. Define and understand the important terminologies and concepts of animal nutrition.
2. Describe the functional anatomy of the gastrointestinal systems of animals.
3. Understand enzymatic and metabolic processes involved in digestion and metabolism.
4. Understand proteins, carbohydrates, lipids, vitamins, minerals, and water, as they relate to animal dietary requirements.
5. Discuss various methods used to determine the chemical composition and biological value of feed ingredients.
6. Understand how animal diets are formulated to meet requirements for maintenance and production.

Course textbook:

McNamara, J. P. 2014. Principles of Companion Animal Nutrition, 2nd edition.
978-0132706704. Pearson Press.

Grades:

A = 90-100 B+ = 85-89.9 B = 80-84.9 C+ = 75-79.9 C = 70-74.9 D+ = 65-69.9 D = 60-64.9 F ≤ 59.9

Course exams/quizzes: Four in-class exams, 100 points each.

Final grade will be: Average of the four exams

Exam format: Exams will be short-answer, true/false, and/or multiple choice questions.

Make-up exams are only available with a legitimate excuse and must be scheduled within one week of the exam.

Exam schedule:

Exam 1: Feb 9, during regular class time, LSF 101.

Exam 2: Mar 4, during regular class time, LSF 101.

Exam 3: Mar 30, during regular class time, LSF 101.

Exam 4: Apr 29, 3:00-5:00pm, LSF 101.

Absences:

Class attendance is mandatory. Requirements for class attendance are in accord with university policies.

Lecture Schedule*:

- Introduction to Animal Nutrition
- Water: Its importance and biochemical properties
- Biochemistry, digestion, and absorption of nutrients:
 - Carbohydrates
 - Proteins
 - Lipids
 - Fat-soluble vitamins
 - Water-soluble vitamins
 - Macrominerals
 - Microminerals
- Comparative Gastrointestinal Anatomy and Physiology
- Nutrient Analyses
- Diet and Ration Formulation

* Nutritional deficiencies and other disorders will be discussed throughout the course.

Need help?

If you need help in this course, please see me after class or contact me via email or phone. If you require academic counseling or services, call the Office of Counseling and Testing at (843) 673-9707.

ACADEMIC HONESTY:

In accord with the FMU Student Handbook guidelines, any evidence of cheating or plagiarism will result in the loss of all points on that exam or assignment and appropriate disciplinary action, and may result in suspension or expulsion from Francis Marion University.

FRANCIS MARION UNIVERSITY: DESCRIPTION OF PROPOSED NEW COURSE or MODIFICATION OF AN EXISTING COURSE

Check the appropriate box: ☒ New Course ☐ Course Modification

Department/School Biology/CLA Date 01/14/2021

Course No. or Level 410 Title Animal Physiology

Semester hours 4 Clock hours: Lecture 3 Laboratory 1

Prerequisites 305 and Chemistry 201 or permission of the department

Enrollment expectation 18-24

Indicate any course for which this course is a (an)

modification _____
(proposed change in course title, course description, course content or method of instruction)

substitute _____
(The proposed new course replaces a deleted course as a General Education or program requirement.)

alternate _____
(The proposed new course can be taken as an alternate to an existing course.)

Name of person preparing course description Vernon Bauer

Department Chairperson's/Dean's Signature Verna W. Bauer

Provost's Signature Peter King

Date of Implementation Fall 2021

Date of School/Department approval January 18, 2021

Catalog description:

410 Animal Physiology (4). (4:3-3) (Prerequisite: 305 and Chemistry 201 or permission of the department) A comparative study of the function of the major organ systems in different classes of animals.

Purpose:

1. For Whom (generally?) Biology majors
2. What should the course do for the student? Upon completing this course, undergraduate students should be able to develop a working knowledge of the major physiological systems and be able to associate anatomical areas with their specific function. They should be able to describe structural and functional differences of major physiological

systems different groups of animals and relate physiological processes to the biochemical processes that underlay them.

Teaching method planned:

Three hours of lecture each week and three hours of lab. Lectures will be a combination of PowerPoint and classroom activities. The content will emphasize how different species have adapted to their habitat using a comparative approach.

Textbook and/or materials planned (including electronic/multimedia):

Yancey, P., Klandorf, H., and Sherwood, L., *Animal Physiology, From Genes to Organisms*, Cengage Learning.

Course Content: (Please explain the content of the course in enough detail so that the Academic Affairs Committee can make an informed judgement.

Include a syllabus for the course.)

This course will focus on the basic physiology of animals including: the physiological function of the major organ systems in the body among various taxa of vertebrate animals, the biochemical and metabolic processes that carry out those physiological functions at the cellular level. The laboratory portion of the course will reinforce lecture topics and will familiarize students to some techniques and equipment used in the acquisition of physiological data.

When completed, forward to the Office of the Provost.

BIOLOGY 410 Animal Physiology

Course Syllabus

Instructor

F.M. Biology – Assistant Professor of Biology
Office 201 Leatherman Science Facility

Catalog Description:

Credit: 4; (Prerequisite: 305 and Chemistry 201 or permission of the department) A comparative study of the function of the major organ systems in different classes of animals.

Textbooks

Required:

- Yancey, P., Klandorf, H., and Sherwood, L. (2013) Animal Physiology, From Genes to Organisms (2nd edition), Cengage Learning.
- Hill, R.W., Wyse, G.A., & Anderson, M. (2016) Animal Physiology. 4th Edition. Sinauer Associates.

Course Objectives and Outcomes

Objectives:

- To provide advanced undergraduate and introductory graduate students with a comprehensive overview of animal physiology from molecular, cellular and whole animal systems approaches.
- To organize the students knowledge of basic sciences (biology, chemistry, and physics) around the physiological functions of whole animal systems with a special emphasis on domestic species.
- To be able to read, interpret and discuss scientific journal articles in physiology.
- To critically evaluate clinical and research case problems relating to endocrinology and cell biology.
- To develop independent thinking skills and written and oral communication abilities.

Outcomes:

- Understand the physiological processes that regulate body functions and the regulation of an organ system from the molecular all the way to the whole animal level.
- Be able to describe interactions between different organ systems (homeostasis).
- Know the anatomy of different physiological systems and their specific functions.
- Understand how changes in one system may impact a different system.
- Be able to apply knowledge of a physiological mechanism to explaining how a whole animal physiological process occurs.

Blackboard Resources

Power point lectures, supplementary materials, and homework assignments.

Grading Opportunities

Exams: 4 exams, 100 points each;

Group topic presentation: 50 points;

In class discussions/Quizzes 5 points each: 50 points.

Lab assignments: 150 points

Absences and Make-Up Work

Requirements for class attendance and make-up exams, assignments and other work are consistent with university policies.

Tentative Lecture Schedule**Week 1 (Aug 24 - 28)**

M: Course Overview/Introduction to Physiology

W: DNA: The basis of life

F: Physiological chemistry of water

Week 2 (Aug 31 - Sept 4)

M: Cellular Physiology: Organic reactions

W: Cellular Physiology: Protein structure and function

F: Cellular Physiology: Membranes and electrochemical gradients

Week 3 (Sept 7 - 11)

M: Labor Day (no class)

W: Neurophysiology – Central nervous system

F: Neurophysiology – neural signaling

Week 4 (Sept 14 - Sept 18)

M: Review and Student Presentations Research Highlights

W: Exam (1)

F: Respiratory

Week 5 (Sept 21 - Sept 25)

M: Respiratory

W: Circulatory

F: Circulatory

Week 6 (Sept 28 - Oct 2)

M: Renal Physiology

W: Renal Physiology

F: Digestive Physiology

Week 7 (Oct 5 - Oct 9)

M: Digestive Physiology

W: Review and Student Presentations Research Highlights

F: Exam (2)

Week 8 (Oct 12 - Oct 16)

M: Immunology I

- W: Immunology II
- F: Endocrinology I: General Concepts
- Week 9 (Oct 19 - Oct 23)
 - M: Endocrinology II: Endocrine Glands
 - W: Endocrinology III: Hormonal Actions
 - F: Student Presentations Research Highlights
- Week 10 (Oct 26 - Oct 30)
 - M: Liver I: Anatomy and Physiology
 - W: Liver II: Metabolism
 - F: The physiology of adipose tissue
- Week 11 (Nov 2 - Nov 6)
 - M: Review and Student Presentations Research Highlights
 - W: Exam (3)
 - F: Homecoming (no class)
- Week 12 (Nov 9 - Nov 13)
 - M: Energy Balance I: General Principles
 - W: Veterans Day (no class)
 - F: Energy Balance II: Regulation
- Week 13 (Nov 16 - Nov 20)
 - M: Thermal Physiology: General Principles
 - W: Reproductive Physiology I
 - F: Reproductive Physiology II
- Week 14 (Nov 23 - Nov 27)
 - M: Student Presentations Research Highlights
 - W: Thanksgiving (no class)
 - F: Thanksgiving (no class)
- Week 15 (Nov 30 - Dec 4)
 - M: Lactation Physiology I: General concepts
 - W: Lactation Physiology II: Hormonal regulation
 - F: Lactation Physiology III: Milk synthesis and composition
- Week 16 (Dec 7 - Dec 9)
 - M: Student Presentations Research Highlights
 - W: Exam (4)

**FRANCIS MARION UNIVERSITY: DESCRIPTION OF PROPOSED
NEW COURSE or MODIFICATION OF AN EXISTING COURSE**

Department/School: Physics and Engineering

Date January 5, 2021

Course No. or Level: ENGR 252 Title: Operations Analysis and Management

Semester hours: 3 Clock hours: Lecture 3 Laboratory 0

Prerequisites: ENGR 301 and MATH 202

Enrollment expectation: 10 per year

Indicate any course for which this course is a (an)
modification _____

(proposed change in course title, course description, course content or method of instruction)

substitute _____ ENGR 355 _____

(The proposed new course replaces a deleted course as a General Education or program
requirement.)

alternate _____

(The proposed new course can be taken as an alternative to an existing course.)

Name of person preparing course description Lorna Cintron-Gonzalez

Department Chairperson's/Dean's Signature _____

Provost's Signature _____

Date of Implementation _____ Fall 2021 _____

Date of School/Department approval _____ 12-Jan-2021 _____

Catalog description:

252 Operations Analysis and Management (3) (Prerequisites: 301 and Mathematics 202) S. Students are introduced to principles, tools, and models for analyzing, engineering, and managing manufacturing and service operations. The course focuses on the application of project management methods, value stream mapping, line balancing, and queueing theory for manufacturing and service industries. Emphasis is also given to discrete-event simulation models of operational dynamics, including analysis of cycle time, throughput, and inventory.

Purpose:

1. For Whom (generally?)

For Industrial Engineering majors.

2. What should the course do for the student?

This course is designed to teach students some of the most relevant tools in Industrial Engineering. These tools are applicable in manufacturing and service industries and it develops professional skills essential for industry work.

Teaching method planned:

Classroom lectures with demonstrations, in-class assignments, and projects.

Textbook and/or materials planned (including electronic/multimedia):

1. Kelton, D., Sadowski, R., Zupick, N., **Simulation with Arena**, 6th Edition, McGraw Hill, 2014.
2. Stevenson, W., **Operations Management**, 13th Edition, McGraw Hill, 2017
3. Arena Simulation Software (free academic license offered to students)

Course Content: (Please explain the content of the course in enough detail so that the Academic Affairs Committee can make an informed judgment. Include a syllabus for the course.)

This course is intended to introduce students to essential industrial engineering tools used in manufacturing and service industries:

- Many Industrial Engineers (IEs) become project managers in industry; a position in which, typically, an IE would have to develop a complete project starting with the identification of a real-life engineering problem until the implementation of recommendations and solutions. **Project management** is known as the process of planning and executing a project in industry. Project management focuses on applying (engineering) knowledge, skills, tools, and techniques to all required project activities to meet a project's requirements and constraints.
- **Value Stream Mapping (VSM)** is one of the most common tools that Industrial Engineers use to identify areas of opportunity in a process or system. Basically, VSM breaks down a process into all activities/steps performed to complete the process/provide a service, or manufacture a product. VSM usually reveals what IEs know as non-value added activities, which, depending on their magnitude and importance, might result in the need to perform a full project to generate solutions/improvements.
- **Line balancing** is also another important tool for industrial engineers, as it uses demand and operations data to efficiently balance work among resources (human and equipment) in a system.
- **Queueing theory** is introduced in this course to develop students' understanding of waiting lines and how industrial engineers can design processes to optimize waiting lines. Queueing theory is also the foundation of **discrete-event simulation**, which models the operation of a system/process as a (discrete) sequence of events in time.

Students will be creating simulation models using Arena, a world-known simulation software by Rockwell Automation. Arena offers a free academic license to students. Upon completion of this course, students are expected to have an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions.

Syllabus for Proposed Course:
On next page

Francis Marion University
Department of Physics and Engineering

ENGR 252 - Operations Analysis and Management
Course Syllabus

<i>Instructor</i>	Dr. Lorna Cintron-Gonzalez	<i>Office</i>	MSB 101 - E
<i>Office Phone</i>	843-661-1463	<i>email</i>	lcintrongonzalez@fmarion.edu

Course Details

<i>Class Meetings</i>	MWF	<i>Office Hours</i>	By appointment only
<i>Class Time</i>	9:30-10:30am	<i>Class Location</i>	LSF 106

Course Prerequisite: ENGR 301 and MATH 202

Required Text:

*Kelton, D., Sadowski, R., Zupick, N., **Simulation with Arena**, 6th Edition, McGraw Hill, 2014.*

Course Overview:

This course introduces students to principles, tools, and models for analyzing, engineering, and managing manufacturing and service operations. Students will learn traditional and current methods, tools and strategies, as well as current tools and techniques used to analyze, improve, and manage manufacturing and service processes. Project management, value stream mapping, line balancing, queueing theory, and sustainability are some of the areas covered in the course. Emphasis is also given to discrete-event simulation models of operational dynamics, including analysis of cycle time, throughput, and inventory. The course will also include a look into the applications of these tools and techniques in healthcare and service industry.

Course Objectives:

- Introduce students to project management by working on a project simultaneously during the course.
- Help students develop a greater sense of the process of identification real-life engineering opportunities by using value stream mapping.
- Develop students engineering problem-solving skills by introducing them to line balancing, queueing theory, and discrete event simulation.
- Allow students to learn and experience the use of Arena software to create discrete-event simulation models.
- Allow students to practice acquired skills by working on projects that involve all the tools described above.

Student Learning Outcomes:

Upon completion of this course, students are expected to have an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions.

Projected Class Topics*:

- Introduction to Project Management
 - The Project management structure
 - Project Management vs Engineering Design Process
 - Project Planning tools and strategies
- Tools for the analysis of operations and systems
 - Value Stream Mapping
 - Line balancing
 - Queueing theory
 - Discrete-event simulation

**Topics are subject to change or may not be covered. Changes will be notified in class*

Overall policies:

- **Office hours** will be by appointment only throughout the entire semester. Dedicated office hours will be Mondays and Wednesdays between 10:30am and 11:30am. However, you must still schedule an appointment by emailing me.
 - Email me at lcintrongonzalez@fmarion.edu with your request to meet and the reason for your appointment.
 - Upon receipt, I will either send you an email with the response to your question(s) or send you a link to meet via Zoom.
 - If none of the above helps, we might be able to meet in person following all protocols in place due to COVID-19.
- If you decide to **withdraw** from the course, you should do so following FMU policies and procedures. Please refer to the FMU Academic Calendar to find this and other important deadlines.

Class Policies during Online Instruction:

- **Quizzes** will be announced and will consist mainly of problem-solving, numerical exercises, short answer questions and multiple-choice questions relevant to the current topics of the class.
 - You should expect a quiz after each lecture during online instruction unless otherwise specified by your instructor.
 - Students are expected to take all quizzes when they are scheduled.
 - Make-up quizzes and tests will be allowed only in case of medical conditions that will impede your assistance to the quiz.
 - Proof from a health professional may be required and you should try to contact your instructor prior to missing the quiz or test.
- **Exams** will be online using Blackboard. These will be announced and will be timed.

Classroom Policies Upon Return to Face-to-Face Instruction:

- **COVID-19 Procedures**

- "No mask, no class." Face coverings should be worn properly at all times inside the classroom. Your face covering should be placed correctly over your nose and should cover your mouth. Failure to comply will result in immediate cancellation of lecture/quiz/exam. Students will be responsible for material not covered in this situation.
- If you do not have a face covering, please let your instructor know. We will be able to provide you with one.

- **Attendance/Participation**

- Attendance for this course will follow FMU's policy. Please refer to your student handbook.
- Tardiness is unacceptable, yet there will be a 1-2 minute grace period for latecomers.
- Please refrain from entering the classroom if you are later than 2 minutes.
- Failure to comply will affect your participation/attendance grade. Instructor may ask you to leave the classroom.

- **Technology**

- Use of mobile phones, tablets and/or other electronic devices **will not be tolerated during class** (unless otherwise specified), **quizzes or tests**.
 - Please put these devices at least on 'silent' mode and keep away from your table.
 - Failure to comply will affect your participation/attendance grade. Instructor may ask you to leave the classroom.
- The use of a scientific calculator is recommended and will be allowed to use for classwork, quizzes, and tests. When in the classroom you may not use a cell phone, tablet, or any other device as a substitute.

Grading:

Homework assignments, tests, quizzes, projects, tests and in-class attendance/participation will determine final grades. The weight of those on the final grade will be distributed as follows (and may be subject to change as announced by instructor):

<i>Quizzes/In-Class Assignments</i>	35%
<i>Projects</i>	25%
<i>Exams</i>	20%
<i>Final Exam</i>	15%
<i>Participation/Attendance</i>	5%

Grading Scale:

100 - 90 = A	89 - 88 = B+	79 - 78 = C+	69 - 68 = D+	59 - 0 = F
	87 - 80 = B	77 - 70 = C	67 - 60 = D	

Academic Dishonesty:

- Cheating, plagiarism and collusion are common ways of violating the FMU's honor code. These incidents will not be tolerated in this course.
 - If a student is found responsible for academic dishonesty, based on the severity of the incident (as assessed by the instructor), he/she will receive a zero on their assignment and may be required to attend a workshop or meeting related to Academic Dishonesty in order to return to the class.
 - *If academic dishonesty occurs during a test or project, student will be dropped from course with a failing grade (F).*
 - *Any of these incidents may result in suspension and/or expulsion.*
- Please refer to your FMU student handbook.

Students with Disabilities:

- Students with disabilities are encouraged to contact the Office of Counseling and Testing to request alternate accommodations for testing. This service is available to qualified students with documented disabilities who are attending FMU. Please also refer to the FMU student handbook or contact Dr. Rebecca Lawson (rlawson@fmarion.edu).