

BIO 192 Introduction to Exercise Science

Syllabus of Practice: FYLI

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Department of Biological Sciences
Michelle Lee

Northern Arizona University
College of Engineering, Forestry, and Natural Sciences
Department of Biological Sciences
Syllabus of Practice

BIO 192 Course Coordinator: Michelle Lee, M.S.
Contact Information: michelle.lee@nau.edu, (928)523-8109
Office: Biology 336

Table of Contents:

| | |
|---|------|
| Introduction..... | 3 |
| Course Approach..... | 3 |
| Outside of class preparation..... | 3 |
| Face-to-face class..... | 4 |
| First Year Learning Initiative (FYLI)..... | 4 |
| Specific FYLI Criteria..... | 4 |
| Undergraduate Teaching Assistant (TA)..... | 5 |
| ‘To Do’ Before the Start of the Semester..... | 5 |
| Helpful Hints..... | 6 |
| Instructor Accessibility..... | 6 |
| Groups..... | 6 |
| Attendance..... | 6 |
| Student Support..... | 7 |
| Late Work..... | 7 |
| Research Project Groups..... | 7 |
| Communication..... | 7 |
| Extra Credit..... | 7 |
| Office Hours..... | 7 |
| Syllabus Template..... | 8-13 |

Introduction:

As of Fall 2012, all sections of BIO 192 have offered a first-year class that meets the First Year Learning Initiative (FYLI) criteria.

The course has been structured as follows:

- 2, 75 minute class sessions per week.
- Students complete required reading outside of class, before the material is covered in lecture.
- Students take low stakes online quizzes (about one per week) covering the material they read, before the material is covered in class.
- In text assignments are completed while students read the required reading outside of class.
- During class time, alternate between lecture and group work, discussing in text assignments or other discussions not in the text. Lecture helps to bring everything they read together, while group work helps to reinforce and apply the content through discussions, practice calculations, and practice problems.

Use the syllabus template (included on page 8).

For new instructor orientation, technical support, course support, etc. go to NAU e-Learning at <http://nau.edu/elearning>

Course Approach (two components):

Outside of class preparation

- The outside of class reading is designed for students to understand the basic content of the topic being covered. Low stakes online quizzes are taken for 13 topics throughout the semester where if the students complete the reading, they should do well on the quizzes. The quizzes close the morning before the topic is covered in class. The text for BIO 192 was written by two faculty at Northern Arizona University (NAU), Drs. Entin and Coast, and was designed to contribute to the flipped style classroom. Within each chapter, there are embedded assignments that students should think about before coming to class.
- Students are expected to prepare for class time by completing all required reading, online quizzes, and looking over assignments prior to coming to class.

Face-to-Face Class

- During class time, the instructor alternates between expanding on the basic content the students read, and group work. The group work is a mixture of the embedded assignments from the text, and other discussion questions that help the students to apply the material. The content of BIO 192 is often difficult and completely new to incoming freshman. Removing lecture completely has been found to decrease student understanding of the material in BIO 192. Short, 5-10 minute segments of lecture between group work has been found to help bring everything together after the reading, and allow the students more time to ask questions.
 - Groups: Students are placed into groups of 5 students the second time the class meets. These students sit with each other and work together all semester. Make groups in a way to ensure that there are students who have completed BIO 201 and/or 202 in each group, as well as spreading out student-athletes amongst groups.

FYLI (First Year Learning Initiative)

BIO 192 is a certified First Year Learning Initiative (FYLI) class. FYLI classes were developed to help students in their first year of college succeed by focusing on three areas: socializing students for excellence (establish attitudes and skills early on to help students succeed), design (set high standards and require student engagement from day one), and alignment (clearly connect the learning activities with assessments). FYLI criteria has been incorporated into BIO 192 by creating an active learning environment, providing academic support and links to students, building a sense of class community, and maintaining consistency throughout all sections.

For more detailed information on FYLI, and to access the 'Toolkit' of resources, go to <http://nau.edu/University-College/Your-First-Year/Learning-Initiative/>

Specific FYLI Criteria

- "Prequiz" completed the first day of class and the last class before the final
- A one page, abbreviated syllabus is handed out the first day of class. Students must find the full syllabus online and complete an online syllabus quiz before the second class.
- First online quiz covering material is due the third-class period (originally tried making it due the morning of the second class, but too many students were still adding/dropping the class).
- Utilization of Faculty2Student Outreach Tool (originally, GPS) starting the second week of classes.

- Attendance policy, with a record kept (turned in at the end of the semester). Attendance is reinforced through the use of pop quizzes which also help to keep the students continuously studying the material.

Undergraduate Teaching Assistant (TA):

- BIO 192 course instructors may select an undergraduate TA of their choice (9 hours per week, including class time) to provide support and assistance for the course. Compensation will be provided by the FYLI program.
- TA Suggested Responsibilities:
 - Assist during class with all group activities
 - Organize in-class assignments
 - Take attendance from in-class assignments, pop quizzes, or other method
 - Assist with group organization and record group participation
 - Grade the in-class assignments and quizzes

'To Do' Before the Start of the Semester

- Set up the Blackboard Learn Shell
 - Request content material import from e-learning
 - Change open and close dates for all online quizzes
 - Make an online quiz schedule and post it
 - Update research project information
 - Change the open and close dates for the syllabus quiz
 - Upload the full syllabus and schedule
- Go through the syllabus template, decide on the assignments you will give, due dates, late assignment options, etc.
- Set up three guest speakers and get them on the schedule.
- One week before the first day of class: send welcome e-mail to students using LOUIE. Include textbook information, including the ISBN and the link to the eBook.
- Create a student account so that you can go into the class as a student and check all content.
- Sign up for roster change emails at:
https://mork.ucc.nau.edu/sympa-cgi-bin/email_roster/index.pl
- Copy the pre-quiz.
- Get the TA and SI Leader access to Bb Learn.
- Meet with your undergraduate TA and go over the TA requirements and responsibilities.

Helpful Hints:

Instructor Accessibility:

Get to the classroom 20 minutes early. This will give you time to set up and figure out any technical difficulties. Let students know they can ask you questions after class is over, or after you have gotten set up.

Groups:

Students are placed into groups of 5 students the second time the class meets. These students sit with each other and work together all semester. Make groups in a way to ensure that there are students who have completed BIO 201 and/or 202 in each group, as well as spreading out student-athletes amongst groups. If the class has 133 people or less in it, this can be done by having students line up, first if they've completed BIO 201 and BIO 202, then if they've completed BIO 201, and lastly if they are a student athlete. You can then start with these students and have them count off one by one to make groups. Alternatively, with larger classes, on the first day do a "get to know you" notecard. Have the students write if they have completed BIO 201 and/or 202 and if they are a student-athlete. Then, you can make the groups for them, and distribute the students accordingly.

Attendance:

It is mandatory to take attendance in 100-level courses. It can be especially difficult to keep track of attendance with many students adding and dropping the class the first two weeks of school. Make sure you know how you are collecting attendance each day before you go to class, whether it is through a quiz, minute papers, in-class group work, or just a sign-in sheet. It is nice for the TA to regularly take attendance in their groups, and have the TA organize the attendance sheet by group.

Student Support:

When the students form groups, have them exchange contact information with their group members, whether this is email addresses or phone numbers.

Have someone from the North Academic Success Center come in and talk to your class about their services within the first two weeks of school.

You will also have a supplemental instruction leader for your course. They should introduce the program to the students and set up four-one hour time slots a week where they will hold supplemental instruction sessions by the second week of school.

The TA can also hold office hours to help the students.

Late Work:

Online quizzes will not be reopened for students. Most are open for a seven-day period, and the online quiz schedule should help them stay on top of deadlines and due dates. It is important to stick to this and consistently hold students accountable and to standards. Occasionally, a student has problems with Bb Learn, and their quiz gets submitted without any answers given. In these cases, clear the attempt and allow the students to complete the quiz before the due date.

Pop quizzes can be made up if the student misses class and has an institutional excuse, medical excuse, or documentation from the Office of Student Life. It is the student's responsibility to get in contact with you and set up a time to make up the pop quizzes. They have one week to complete it after they return to school.

The three main parts of the research project can be turned in late, but the students lose 10% per day that it is turned in late.

Research Project Groups:

Students will be placed in groups of 4-6 students for their research project. They will work in these groups outside of class to complete parts 2 and 3 of the research project. Make groups using the topic the student chose for part 1 of the research project. Distribute students who score well, moderately well, and poorly evenly into the groups.

Communication:

Clearly communicate to the students how you would like them to communicate with you. Many will talk to your face-to-face before and after class, they will email you, and some will come to office hours.

Extra Credit:

Students are always looking for, and asking for extra credit. In order to maintain integrity in the course, it helps to explain your policy on extra credit the first week of school. All students start with five professionalism points, which are extra credit points, that they can lose by being unprofessional. Other than that, there will not be any large opportunities for extra credit in BIO 192. Sometimes small extra credit opportunities arise throughout the semester (for example awarding extra credit points for the final exam review).

Office Hours:

It is highly recommended that office hours are held at least two different days per week at different times during the day and that you have plenty of availability for appointments, especially when students are working on the research project.

Syllabus Template

Introduction to Exercise Science – BIO 192
Department of Biological Sciences
College of Engineering, Forestry and Natural Sciences
Semester, Year



Instructor: **Office:** **Phone:**

Email:

Office Hours:

Class location and hours:

SI Instructor:

Peer TA:

Course Website: <https://bblearn.nau.edu/webapps/login/> - log into Bb Learn and go to BIO 192

Check early and often for readings, announcements, assignments, notes etc.!

Course Description

This course is an introduction to the Exercise Science program in Biological Sciences. It is *required* for EXS, FW, and PES majors. Students should expect a rigorous, science-based course requiring ≥ 6 hours/week outside of class spent reading, studying, and working on the research project. This course has received certification in NAU's First Year Learning Initiative.

Course Goals/Learning Outcomes

1. To introduce students to the terminology and primary concepts within the major subdisciplines of exercise science. Students will apply primary concepts in physiology, nutrition, epidemiology, kinesiology, exercise psychology, motor behavior, and sports sociology.
2. To introduce students to the execution of scientific research. Students will demonstrate use of an on-line scientific database. Students will propose a testable hypothesis, form a decision rule, make properly formatted graphs and interpret results in terms of the decision rule. Students will be able to identify dependent and independent variables and interpret graphs presented in scientific literature.
3. To enhance teamwork skills. Students will demonstrate effective teamwork on in class and out of class assignments.
4. To provide students ideas for career opportunities and paths related to exercise science.

Course Structure

This course includes in-class group work, in-class lecture, guest speakers, and an out-of-class group research project.

Required Text: Required reading will be posted to Bb Learn: Introduction to Exercise Science by Coast, J.R., Lee, M.J., and Entin, P.

Assessment/Grading: Final grades will be based on the number of points earned expressed as a percentage of the total number of points possible. The following point schedule is subject to change with notice.

| <u>Assignment</u> | <u>Point Value</u> |
|--|-----------------------|
| Syllabus Quiz | 5 points |
| On line Quizzes (5 points per quiz) | 60 points (estimated) |
| In class Quizzes (10 points per quiz) | 70 points (estimated) |
| Research Assignment(125 points total) | |
| Part 1 | 15 points |
| Part 2 | 40 points |
| Part 3 | 40 points |
| Peer Evaluations (2 at 15 points each) | 30 points |
| In class Group Peer Evaluation | 10 points |
| “Mid-term” exam I | 100 points |
| “Mid-term” exam II | 100 points |
| Final exam | 130 points |
| TOTAL POSSIBLE | 600 points |
| <hr/> | |
| Professionalism (refer to the Professionalism section) | 5 points |

Points earned by the student will be expressed as a percentage of the total number of points possible and converted to a letter grade as follows:

89.5-100% = A; 79.5-89.4% = B, 69.5-79.4% = C, 59.0-69.4% = D, < 59.0% = F

Course Requirements:

1. **Readings:** Reading assignments are listed in this syllabus and may be supplemented or altered (changes will be announced in class). All assigned readings are **required** and quiz and/or exam questions may be based on material covered exclusively in the reading assignments.
2. **Online Quizzes:** Readings will be associated with thirteen 5-point quizzes in Bb Learn. These quizzes will be “open” or available for limited time periods before the reading is due – this may be as few as THREE DAYS (72 hrs). You must take each quiz within the allowed time window (see online quiz schedule) – there will be no going back and **no make-ups**.
3. **In Class Quizzes:** Nine 10-point quizzes will be given throughout the semester. Quizzes may be given at ANY time during class (start, middle, end) and cannot be made-up if missed (unless the student provides documentation of their absence) nor will time extensions be given to students who are late to class. Quizzes may be individual or done with a group. Quizzes will cover recent lecture and/or reading material. Good quiz scores will help your grade!

4. Exams: Two “mid-term” exams will be given during regular class hours. A **comprehensive final examination will be given at the scheduled time during exam week (time and date)**. Exams may be all multiple choice or include short answer questions. Students are expected to take all exams at the designated time. Any conflicts must be discussed with the instructor at least one full week PRIOR to the day of the examination. Documentation WILL be required for all emergencies.
5. Research assignment: Each student will work in a group of 4-6 to complete an exercise/sports related research project. This project will include an internet-based literature search, hypothesis and plan formation, data collection, graphing, tables and written interpretation. Each student will submit a RP Part 1 as a hard copy on the due date and through SafeAssign on Bb Learn to check for plagiarism. One student per group will submit RP Parts 2 and 3 as a hard copy and through SafeAssign on Bb Learn. Failure to submit to SafeAssign will result in a one letter grade reduction on the assignment.

Other Policies:

1. **Attendance**: A mandatory attendance policy has been passed for 100-level courses. Institutional excuses and documented medical emergencies will not be counted as an absence. **If you miss eight or more classes throughout the semester, 25 points will be deducted from your course point total.** If you anticipate more absences due to personal problems, talk to student life or disability resources. Please refer to the Attendance Policy Procedures document for what to do if you miss class for an emergency or plan on missing a class.
2. **Conduct**:
 - a. Students are expected to be **on time** for class and **to remain in class for the duration** of the period. If you must enter class late or leave early, please inform the instructor and do so in the most undistruptive manner possible. Attendance will be taken. If you are absent, you will need to get notes from a classmate. Missed information may result in lower quiz and test scores. Leaving class early may count as an absence for that day.
 - b. Cell phones must be turned off and put away during class. **You should not be text messaging during class.**
 - c. Take out earphones during class.
 - d. I welcome email correspondence. However, I will not reply to unsigned emails.
 - e. Disruptive behavior is grounds for dismissal.
3. **Required Reading**: The course format makes it essential that you keep up to speed with the reading described in the syllabus. You are expected to read any and all material assigned for any given day. This class will cover a lot of ground. Do not put off reading the chapter(s) until just before the next exam! We will move at the rate of approximately one chapter per week, so if you procrastinate a chapter or two, or you will quickly fall behind.

4. **Integrity:** Students are expected to do honestly all the work of the class. Cheating, including plagiarism and copying, on assignments, quizzes, or examinations will result in a penalty from a reduction in score on the assignment to a reduction in grade for the course. Per University policy, all incidences of cheating will be reported to the department chair and to the dean's office. **It is your responsibility to understand and avoid plagiarism.** Posting of course material to online websites for other students use will also result in reduction of your grade for the course. Use of cell phones for any purpose during exams or quizzes will be considered a violation of the Academic Integrity Policy and will warrant sanction up to and including a grade of zero on the assignment. Talking during exams or quizzes will also be considered a violation and result in a one letter grade reduction for the assignment. Students should read and be familiar with NAU's Academic Integrity Policy:

<https://www5.nau.edu/policies/client/Details/621?whoIsLooking=All&pertainTo=All>

5. **Add/Drop Deadlines:** The last day to add without a fee is **date**. The last day to drop *without* a W is also **date**. **The withdrawal (W) deadline is date.** You cannot drop after **date** without documenting circumstances beyond your control.
6. **Make ups/Extensions:** Make up examinations or in class quizzes will be given **only** in cases of institutional excuses or documented medical emergencies. Make ups must be taken **within one week** of the scheduled date of the examination or quiz. **It is YOUR responsibility to arrange for a make-up.** Unless previously cleared with the instructor, all assignments must be completed and submitted on the established due date. Late assignments will be penalized by 10% of the total point value for each day past the deadline. Incompletes (I) will be given only under extraordinary conditions and require a signed contract.
7. **Professionalism:** On top of the 600 total points for this class, you will receive an EXTRA 5 points for professionalism. *Points will be taken away for any unprofessional conduct.*

I reserve the right to take points away in any increment.

The following are examples of unprofessional conduct:

- Emailing me with ANY question that you could answer by looking at the syllabus. Examples include the time and date of exams, what textbook is needed, when office hours are, etc.
- Improper email usage, such as failing to include an informative subject line, not signing your name, or not properly addressing me.
- Missing a scheduled appointment.
- Being disruptive in class. This includes excessive talking or anything else that detracts from other students' ability to pay attention.

8. **NAU Policy Statements:** NAU has asked that several policy statements be included on each syllabus. The policies are available at the following website: http://nau.edu/OCLDAA/_Forms/UCC/SyllabusPolicyStmnts2-2014/

There is also other information you may find useful that the university has asked be included in the syllabi:

1. NAU has an **Emergency Textbook Loan Program**. Eligible students can apply for assistance with acquisition of textbooks for the semester. More information at: <http://nau.edu/LEADS-Center/Textbook-Loan-Program/>

2. The Student Learning Centers, TRIO Outreach programs, and Educational Support Services main office are back in the University Union, second floor. Specific room locations are as follows:

Student Learning Centers; Tutoring-room 201; Transfer and Commuter Connections office/lounge-room 247; Peer Jacks lounge and staff-room 201

TRIO Outreach programs Educational Talent Search (ETS)/Educational Opportunity Center (EOC)/Nizhoni-room 241; Upward Bound and Upward Bound Math Science-room 201;

Educational Support Services Main office – room 260

Schedule:

The following is a tentative outline of lecture topics with accompanying text readings. Exam and due dates are also noted. Any changes will be announced in class and via web announcements.

| DATE | TOPIC | READING | NOTES |
|----------------|--|--|---|
| 8/29, 8/31 | Introduction, Homeostasis | Ch 1- stop after research for basic sciences; Ch 2 | Get full syllabus, reading & resource manual Online quizzes! Syllabus quiz due date |
| 9/5, 9/7* | Homeostasis, Ex Physiology – Bioenergetics | Chapter 2 | |
| 9/12, 9/14* | Ex Physiology – Bioenergetics, Muscle | Chapters 2 & 3 | RP Part 1 DUE date |
| 9/19, 9/21* | Ex Physiology – Muscle, CV Guest speaker | Chapter 3 | Keep up with online quizzes! |
| 9/26, 9/28* | Ex Physiology – Cardiovascular, Respiratory | Chapter 3 | |
| 10/3 | Exercise Physiology- Respiratory and Review | Chapter 3 | High Altitude Challenge |
| 10/5 | EXAM #1 | Chapters 1-3 | |

| | | | |
|------------------|---|-------------------------|--|
| 10/10, 10/12 | Health, Fitness and Wellness, Research Methods and Epidemiology | Chapter 7, Chapter 1 | RP Part 2 DUE date |
| 10/17, 10/19* | Epidemiology, Clinical Exercise Physiology, Guest speaker | Chapter 6 | LaMonte et al. Questions RP Part 2 Peer Eval DUE date |
| 10/24, 10/26* | Clinical Exercise Physiology | Chapter 6 | |
| 10/31, 11/2* | Kinesiology, | Chapter 4 | |
| 11/7 | Kinesiology and Review | Chapter 4 | |
| 11/9 | EXAM #2 | Chs 1, 4, 6, & 7 | |
| 11/14, 11/16* | Exercise/Sports Psychology | Chapter 8 | RP Part 3 DUE date |
| 11/21 | Motor Behavior: Motor Control | Chapter 8 | RP Part 3 Peer Eval DUE date |
| 11/23 | No class- Thanksgiving | | |
| 11/28, 11/30* | Motor Learning/Teaching a new trick, Guest speaker | Chapter 5 | DUE: date In Class Group Peer Evaluation |
| 12/5 | Sports Sociology | | |
| 12/7 | Review | | |
| 12/12 | FINAL EXAM - time | ALL CHS & READINGS | |