



Department of Arts and Sciences
Course Syllabus

COURSE INFORMATION

Course Prefix/Number/Course: BSC 1085/10111/Anatomy & Physiology I

Credit Hours/Contact Hours: 3 credit hours

Prerequisites for the course: NA

COURSE METHOD

This course is designed as an online course and therefore there are no on-campus meeting dates required. You may access the course on the first day of class at: <http://online.fkcc.edu>. If you have difficulty in logging in to the course or you do not see the course listed, contact the Office of Distance Learning helpline at 305-809-3177 for assistance. Synchronous Office Hours-Check the Announcement section of the course for synchronous office hour times. To access office hours click on "Chat" under Course Tools.

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Announcements-Weekly Announcements from your instructor will be posted on the announcements page. To access click on "Announcements" under Course Tools.

Classroom Email- All classroom email between students and faculty members should occur within the internal D2L email system. To access click on "Mail" under Course Tools.

INSTRUCTOR INFORMATION

Instructor: Robert A. Bullis

Email: Robert.Bullis@FKCC.edu

Office Hours: By email or via D2L chat (contact to set up appointment).

Communication: via email. Instructor will respond to your questions within 72 hours of posting.

DESCRIPTION

This course is a lecture online course of Anatomy & Physiology 1. This is a postsecondary introduction to human anatomy and physiology systems emphasizing the skeletal system, muscular system, reproductive system, cellular biology, urinary system and digestive system and nutrition. This course offers excellent preparation for students interested in pursuing a career in the medical field.

COLLEGE-LEVEL COMPETENCIES

Florida Keys Community College graduates who complete the core curriculum possess the knowledge, skills and values associated with college-educated individuals. Our graduates demonstrate mastery of competencies integrated within the academic disciplines, such as the ability to effectively communicate, seek creative solutions to problems, exhibit cultural awareness, and command basic technological skills.

1. **Communication:** Comprehend and articulate effectively – written and oral communication
2. **Critical Thinking:** Demonstrate mastery of problem-solving skills in the discipline
3. **Diversity:** Interpret and evaluate societal and ethical issues, problems and values
4. **Technology:** Utilize technology effectively

COURSE CALENDAR

1. The Course Calendar lists the learning activities and assessment measures that comprise this course on a weekly basis. These activities and assessments are directly related to learning outcomes that support the overall course objectives. There are a total of 100 points that can be achieved during this 15-week course, with each weekly discussion offering a total of 4 possible points. Students are able to gauge their performance according to this grading scale throughout the duration of the course. The “Student Assessment” column lists all of the assignments required by this course and their due dates. I strongly recommend you print this out and refer to it often.

2. Students are responsible for following the course calendar. Consult your calendar before you start a new chapter or section. (Note: Some sections may not be covered in the same order as in the text). If you ever have a question that begins with “When is ___”, the answer is probably already published in this Course Calendar. Looking here first will probably get you a quick answer to your question.

3. **ALL assignments are due by 11:59 p.m. on the last date of each session**

Competency	Module/Week	Learning Outcomes	Learning Activities	Student Assessments	Points
1, 4	<i>Module/Week 1</i>	Intro to Anatomy, ch 1	1. Post Introductions (Discussion 1) 2. Read Chapter 1 3. Ch 1 Study Guide	8/22-8/28	2.67
1, 2, 4	<i>Module/Week 2</i>	Chemical Basis of Life, ch 2	1. Read Chapters 2 2. Discussion 2 3. Ch 2 Study Guide	8/29-9/4	2.67
1, 2, 4	<i>Module/Week 3</i>	Cellular Structure, ch 3	1. Read Chapters 3 2. Discussion 3 3. Ch 3 Study Guide	9/5-9/11	2.67
1, 2, 4	<i>Module/Week 4</i>	Histology-Chapter 4	1. Read Chapter 4 2. Ch 4 Study Guide 2. Discussion 4	9/12-9/18	2.67
1, 2, 3, 4	<i>Module/Week 5</i>	Integumentary System-Chapter 5	1. Read Chapter 5 2. Ch 5 Study Guide 2. Discussion 5	9/19-9/25	2.67
1, 2, 3, 4	<i>Module/Week 6</i>	Review ch 1-5	1. Exam 1 2. Discussion 6	9/26-10/2	12.67
1, 2, 3, 4	<i>Module/Week 7</i>	Skeletal System (ch 6 & 7)	1. Read Chapter 6, 7 2. Discussion 7 3. Ch 6 Study Guide 4. Ch 7 Study Guide	10/3-10/9	2.67

1, 2, 4	<i>Module/Week 8</i>	Joints ch 8 Begin: Muscle Physiology- ch 9, Muscular Gross Anatomy Ch 10	1. Read Chapter 8 2. Discussion 8 3. Ch 8 Study Guide	10/10-10/16	2.67
1, 2, 4	<i>Module/Week 9</i>	Finish: Muscle Physiology- ch 9, Muscular Gross Anatomy Ch 10	1. Read Chapter 9, 10 2. Discussion 9 3. Ch 9 Study Guide 4. Ch 10 Study Guide 5. Projects due!	10/17-10/23	22.67
Complete Semester Projects!					
1, 2, 4	<i>Module/Week 10</i>	Review ch 6-10	1. Exam 2 2. Discussion 10	10/24-10/30 <i>*no classes 10/18</i>	12.67
1, 2, 4	<i>Module/Week 11</i>	Urinary System: Ch 26	1. Read Chapters 26 2. Discussion 11 3. Study Guide ch 26	10/31-11/6	2.67
1, 2, 3, 4	<i>Module/Week 12</i>	Fluids & Electrolytes- Ch 27	1. Read Chapters 27 2. Discussion 12 3. Ch 27 Study Guide	11/7-11/13	2.67
1, 2, 3, 4	<i>Module/Week 13</i>	Male and Female Reproductive System-Chapter 28, Growth and Aging-Chapter 29	1. Read Chapters 28, 29 2. Discussion 13	11/14-11/20	2.67
1, 2, 4	<i>Module/Week 14</i>	Final Exam opens Review all semester course topics.	1. Review all study guides 2. Reread all chapters 3. Discussion 14	11/21-11/27 <i>*No classes 11/22-11/27</i>	2.67
1, 2, 3, 4	<i>Module/Week 15</i>	1. Final Exam	1. Discussion 14	11/28-12/4	22.67
Final Exam is due no later than 12/9/11.					

MATERIALS

Required Textbook: Seeley et. al, "Anatomy and Physiology" 8th edition
 ISBN: 978-0073293684

Accompanying materials: Anatomy & Physiology Revealed (see lab course homepage for instructions)

GRADING SCALE

The following grade scale will apply to this class:

- A: 90 % or above
- B: 80 - 90 %
- C: 70 - 80 %
- D: 60 - 70 %
- F: below 60 %

Assignment	Points per	Number of assignments	Total points
Discussion Participation	2.67	15	40
Research Project	20	1	20
Exams	10	2	20
Final Exam	20	1	15
TOTAL			100

CLASS POLICIES

Communications: All class communications should be conducted via D2L. The online format of this class puts a premium on communications. The prime responsibility for timely communications rests with you - the student. We will use the following methods:

DISCUSSION FORUMS: Each week under the discussion tab, there will be a question to which you are to post a response during the week. Make sure that you click on the “respond” button immediately after the question. You are to make appropriate comments; for maximum point you are also to respond to at least one other student’s response that week. You should also check to see who has responded to your comments and respond to this person if it is appropriate to do so. These responses are also to be thought revealing – they are more than “I agree” or “I disagree.” You are expected to provide quality insight citing and documenting your references, in order to demonstrate an understanding of the weekly topic and provide original thought in the posts. Cutting and pasting from the text, websites, or providing a response with limited substance will receive a significantly reduced grade. As with all activities in this class, quality counts and your postings need to add value to the discussion.

For more specific requirements, see *Class Participation* section.

In addition, most questions about class policies and subject matter should be posted in the discussion forum to allow the entire class to benefit from the question and the answer. There will often be important information published to the class via the Discussion Forums, such as changes in due dates, exam information, etc. **You are responsible for all information published here.**

Occasionally, time-sensitive announcements will be posted on Discussion Boards. You should logon to D2L 3-4 times each week to check for time-sensitive messages. Before you post a question, look through the Discussion Board. That same question may have already been asked and answered.

D2L EMAIL: The email utility within D2L should not be used for personal items that are not appropriate to share with the entire class.

What you can expect from me:

I normally log into D2L and check for messages at least once per day, including weekends and holidays. If you have an urgent message for me, do not post the same message both on a Discussion Forum and in an email. Doing both will waste your time and will not result in my getting the message any faster. If I expect to be out of contact for more than a couple of days, I will inform the class via the Discussion Forum.

Important Note: If I have not responded to your email or voicemail message by the end of the day after you left the message, you should assume that I did not receive it and leave another message.

LOGGING OFF FROM D2L

In order to better serve our faculty and students, all D2L users should use the logoff button when completing online course work. By logging off instead of just closing your internet browser window, D2L server space is freed and system performance is optimized. In addition, logging off will more accurately record each student's time logged into the online course.

LATE WORK

1. Any assignment not submitted by the date and time specified in the Course Calendar is considered late, unless you have contacted me and I have approved an extension in advance.
2. No late assignments are accepted, unless an extreme emergency has occurred and I have approved it in advance.
3. The above policy does not apply to the final exam or any other assignment that may be due during the Final Exam period. No assignments due during the last week of classes will be accepted late to allow me to submit the course grades to the college on time.
4. Class participation will not be accepted late unless you have contacted me and we have mutually agreed on an alternate submission date in advance. Posting class participation messages late will add little to the class discussion of those topics.
5. Internet connection problems are not an acceptable excuse for late work. You should have a plan in place for internet access in case your primary method is unavailable. I strongly recommend submitting assignments at least one full day early to allow time to recover from technical problems.
6. If you are unable to access the online classroom due to a College server outage on the date that an assignment is due, the following guidelines apply. If I have not heard from you before the deadline I will not waive the late penalty described above.
 - a. Send me an internet email before the assignment is due and attach the assignment to the email if applicable.
 - b. If there is a problem with the D2L server that prevents completing an exam or quiz, I will make a reasonable accommodation and publish the information in the online classroom as soon as I am able to log on myself. The "issue" with D2L must be validated by online learning services before I consider additional exam accommodations.
7. If you are out of contact and miss a deadline due to an extenuating circumstance, I expect you to contact me as soon as possible to discuss the situation. No exceptions will be made to the above policies unless you can provide documentation of the situation that I consider adequate.

CLASS PARTICIPATION

Class participation is defined as posting a minimum number of substantial, separate, and distinct messages to the various Discussion Forums. These discussion board messages must be posted before the deadlines in the Course Calendar to count toward your participation grade.

For the purposes of this class, a substantial message must:

1. Provide a good explanation of a concept or concepts related to the material discussed in the forum, or give a good example of how a concept can be applied, or provide an insightful response to a previous post.
2. Be factually correct. The post should help your classmates, and yourself, learn the material.

3. **Be at least 150 words in length.** Messages that do not meet this length requirement will earn only a small amount of partial credit, even if they are only one word short.
4. Have acceptable spelling and grammar. Although this is not a writing class, this is College. Students should get into the habit of writing complete sentences that are grammatically correct. I don't expect your grammar to be perfect, but it should be generally correct. Take advantage of the spell check feature in D2L.
5. Be your own work. Do not plagiarize from any source (internet, textbook, etc) as the body of your post. Study the concept, and then express it in your own words. Make certain to cite and document your references.

Other key points:

1. Only messages that meet all of the requirements of a substantial post listed above will earn full credit for participation.
2. It is acceptable (and encouraged!) for more than one student to respond to the same message. The best way to be sure you understand a topic is to try to explain it to someone else.
3. Please use the discussion forums to ask all of the questions you have about the class material. I want you to ask a lot of questions, and these questions will contribute to your class participation grade.
4. Off-topic messages will not count toward your participation grade.
5. If your final average is on the borderline between two letter grades, active participation (posting several messages to each forum, on average) will work to your advantage as I decide which of the two letter grades you have earned.
6. Messages must have content that contributes to the discussion. Messages that contain a few words and merely say "I agree with you" or something similar will not earn any credit.
7. These participation points are the easiest part of your grade to earn, and also the easiest to forget to do. Don't forget!
8. Copying and pasting from any source, even if you cite the source, is not acceptable. You should study the source document and paraphrase what you learned when typing a message.

To earn 100% for your class participation grade, you must do the following by the dates published in the Course Calendar:

1. Post an introductory message to the class in the Introductions forum.
2. Post one substantial message in each discussion forum at any time during the week in which that forum is scheduled. (If two forums are scheduled during the same week, then one message must be posted in each forum.) Post a MINIMUM of two replies in each forum.
3. Some extra credit may be given for substantial messages that are posted no later than Wednesday of the week they are due. This is to encourage students to post early in the week, which will help generate a better class discussion within each forum.
4. If no substantial messages are posted on time in a forum, it will not be possible to earn 100% for that forum. A small number of messages that are not substantial but do say more than "I agree" or "Good Post!" and are more than 1 or 2 sentences in length will earn some part credit, but not very much.

WITHDRAWAL POLICY

1. Students may withdraw without academic penalty from any course by the established deadline published in the college calendar. This will result in a grade of 'W' for the course and will not count against the student's GPA.

2. Students will be permitted a maximum of two withdrawals per course. Upon the third attempt, the student **WILL NOT** be permitted to withdraw in accordance with State of Florida regulations and will receive an earned grade for that course.
3. It is the responsibility of the student wishing to withdraw from the course to do so by the date published in the College Academic Calendar.
4. Students who abandon the course or do not withdraw themselves by the published deadline are subject to receiving a grade of F.
5. An instructor may withdraw a student from any course for excessive absences and/or non-attendance up to the 70% point in the semester.

EXAMS AND QUIZZES

1. I recommend the following general process for studying each chapter:
 - a. Read each chapter once to get an idea of its contents.
 - b. Read the chapter carefully, ensuring you understand each concept.
 - c. Use the chapter notes available in the online classroom to supplement the textbook.
 - d. Use the study guide. You should be able to provide a detailed explanation for each item in the study guide. Make sure you understand the reasons behind each correct answer.
 - e. Use the discussion boards. These will cover many of the concepts that may appear on a test.
 - f. If you can provide a detailed explanation for every item in the study guide and you understand the reasons behind the all of the correct answers in the review games, you will be well prepared for the tests in this class.
 - g. Post any questions you have in the appropriate discussion forum. I or a classmate will be sure to help you.
2. Exams and quizzes may be taken any time **ONLY** during the period listed in the Course Calendar. They will be available for one week beginning on the Sunday prior to the due date, unless otherwise specified.
3. All exams and quizzes will be given online via D2L. There is no requirement to take tests on campus.
4. All exams and quizzes are open book and open notes. Calculators may be used.
5. All exams and quizzes will have a time limit. My goal is to test what you have learned, not what you can look up. Every test should automatically submit itself at the end of the scheduled time, but it is your responsibility to track the time you have spent and how much time you have remaining. Exams not submitted by the end of the scheduled time will be penalized.
6. The questions will be challenging. You should study as if the exams and quizzes were closed book, because you won't have time to look up every answer. If you have to look up more than a few answers, you will run out of time.
7. Question types will be a combination of multiple choice, matching, true/false, fill in the blank, and essay.
8. On occasion, computer problems will occur during an exam or quiz. If I have to reset your attempt to allow you to complete it, then I have lost control over the time allowed for the assignment. I may, at my discretion, have you take a makeup exam since the original exam environment will have been compromised. If I have to create a makeup exam, be advised that it will be more difficult than the original exam and will likely consist entirely of essay questions. So, you need to be very careful that you don't inadvertently cause any problems during the exam. If your regular internet access method is not reliable, you need to find a reliable access method for exams. The College has computer labs available for your use.

9. I generally do not reset final exams. If a problem occurs during a final exam, I will create a makeup exam for you as described in the previous paragraph. Be extra careful that you do not inadvertently cause any problems during the exam.

EXTRA CREDIT WORK

This instructor does permit students to complete extra credit assignments to improve their grade. To earn the grade you desire, work hard all semester.

In general, I do not permit students to complete extra credit assignments to improve their grade. To earn the grade you desire, work hard all semester.

HOW MUCH STUDY TIME SHOULD A STUDENT EXPECT TO DEVOTE TO THIS COURSE

1. **This is a difficult course.** Most educators recommend that students spend a minimum of 1-3 hours outside of class studying and completing assignments for every hour spent in class. For a typical 3 credit hour class, the student should expect to spend a total of 9-12 hours every week per course. This same guideline applies to online courses.

2. Some classes require more time and effort than the guideline presented above, while other classes may require less. Therefore, the amount of time required for each course may vary; however, the student should expect the study time required for any class will trend toward the high side of the guideline until at least after the first exam or quiz. At this juncture, the student can then compare the effort expended with the results earned and make any adjustments necessary.

3. This class addresses a considerable amount of material and there will be difficult to grasp concepts. Experience has shown that students who are successful in this class generally have study time totals on the higher of the scale.

4. Few students do well in this course spending fewer than 5 or 6 hours studying per week. If the student does not already have a strong background in this subject, the amount of study time required will most definitely be on the higher end of the scale to earn a good grade.

1. Most educators recommend that students spend 1-2 hours outside of class studying and completing assignments for every hour spent in class. For a typical 3 credit hour class, this translates into a total of 6-9 hours every week per course. This same guideline applies to online courses. You should expect to spend a total of 6-9 hours each week studying and completing assignments for each course you take.

2. This is a guideline. Some classes will require more time and effort than this guideline and some will require less, and the time any individual student will need to spend will vary. You should expect the study time you will need in any class will be toward the high side of the guideline until at least after the first exam or quiz. Then you can compare the effort you expended with the results you earned and make any adjustments necessary.

3. This class covers a lot of material and there are some concepts that may be difficult to grasp. Experience has shown that students who are successful in this class generally have study time totals on the higher of the scale.

4. Few students do well in this course if they are spending fewer than 5 or 6 hours studying every week. If you do not have a strong background in this subject, your study time will almost certainly need to be on the higher end of the scale if you want to earn a good grade.

ACADEMIC HONESTY AND PLAGIARISM

1. Students are expected to respect and uphold the standards of honesty in submitting written work to instructors. Though occurring in many forms, plagiarism in essence involves the presentation of another person's work as if it were the work of the presenter. Any cheating or plagiarism will result in disciplinary action to be determined by the instructor based on the severity and nature of the offense. It is the student's responsibility to review the College's policy on Academic Honesty.
2. Collaboration and discussion is encouraged in all course aspects other than actually completing the assigned work (quizzes, exams, homework, projects, etc). Indeed, collaboration often leads to increased understanding of the material being covered. If you have questions about an assignment, this instructor encourages the student to ask questions.
3. Plagiarism is a form of fraud and will not be tolerated by this instructor. Each student is expected to do their own work. Copying text and/or images from any source and claiming it as your own is considered plagiarism. Submitting copied text as most or all of your answer on a homework or project is also a form of dishonesty, even if you cite the source. This instructor wants to read YOUR words, not someone else's words. Using quoted text to support your answer will not be accepted or tolerated.
4. If this instructor observes any form of academic dishonesty, the student will receive a grade of zero for that assignment. If the student is observed a second time engaging in academic dishonesty, that student will earn a failing grade for this class and be reported to the College. Additionally, cheating on tests is totally unacceptable. Any student caught cheating on a test will receive a failing grade for the course.

COPYRIGHT NOTICE

The materials and content provided in this course is intended only for registered Florida Keys Community College students who have paid their tuition and fees to attend this course. Materials that are affected included, but are not limited to text, still images audio recordings, video recordings, simulations, animations, diagrams, charts and graphs. Every effort has been made in ensure these materials are not disseminated to anyone beyond those who have legally registered for this course. Download, revision, or distribution of course material with anyone other than registered classmates and the instructor is strictly prohibited.

ATTENDANCE POLICY

1. This instructor will monitor student attendance and participation in educational activities on a weekly basis. Students are required to participate in their online course each week as verified by activity within the D2L Learning Management System.
2. There will be at least one assignment in this course that is due every week of the semester, unless the College is officially closed for the entire week. These may include discussion forum posts for class participation, exams and quizzes, homework, projects, or a combination of these. I will take attendance each week based on your submission of the assignments that are due that week, so it is important that you submit every assignment on time. If you submit all of the week's assignments late, you will be marked as absent from class for that week. If at least one assignment is submitted on time each week, you will be marked as present.
3. Simply logging into the online classroom without submitting any of the assignments due is not sufficient to count for attendance purposes.
4. Students who do not regularly participate in class by submitting the assignments that are due each week are considered absent from the class.
5. An instructor may withdraw a student from courses for excessive absences and/or nonattendance up to the 70% point in the semester.

DELAYS IN GETTING THE TEXTBOOK

Having regular access to the textbook is a requirement for this class. Whenever possible students should have the text in hand before the first day of class each semester, but there will be times that students are unable to get the text until after the class begins. If you are in this situation, follow the guidelines below. These guidelines are intended to be general enough to apply to all classes you take, and they may not all apply to this class. Not having the text is not an acceptable excuse for doing no work at all in this class.

1. The FKCC library has reserve copies of the textbook available for student use. These textbook copies cannot be removed from the library.
2. During the first week of the semester, complete all of the administrative items. This includes printing the Syllabus and the Course Calendar and Assessment Measures, posting an introduction to the class, and returning the Class Contract. The text is not needed for any of these tasks.
3. Print out the study guide I prepared for this class. This will give you a good idea what topics are covered in each chapter. You should do some internet or library research on some of these topics to minimize how far you get behind. This research should also help you learn enough to participate in the class discussions.
4. Use any resources that are available in the online classroom. This includes links to web sites, review activities, handouts, PowerPoint slide shows, and anything else that may be available.
5. Reading all messages posted in the discussion forums may be the best way to keep up until you have the book in hand.
6. Look at the publisher's web site for the text. Most publisher text sites have student resources that can help you, and many of these are available even if you do not have the text. As a minimum, the web sites usually have a Table of Contents, which can also help you get an idea what topics we will cover.
7. Please let me know if you don't have the text by the end of the first week of class. I will not be sympathetic if you wait until after the first week of the semester to tell me you don't have the text. The above guidelines will probably not be enough to replace the text entirely, but they will allow you to learn enough to participate in the discussion forums each week. This participation is critical to your grade and also for attendance purposes.

SOURCES OF TECHNICAL ASSISTANCE

If you are having any technical difficulties (e.g., logging in, accessing the discussion board, etc.) please contact the Office of Distance Learning helpline at 305-809-3177 Monday—Friday 8:00AM to 4:00PM or email your question to FKCC.helpdesk@online.fkcc.edu.

SPECIAL NEEDS

If you have any special needs or requirements pertaining to this course, please discuss them with the instructor early in the term. If you have special needs as addressed by the Americans with Disabilities Act (ADA) and need assistance, please notify the Office for Students with Disabilities at 305-809-3292 via email at: karla.malsheimer@fkcc.edu or the course instructor immediately. Reasonable efforts will be made to accommodate your special needs.

COMMUNITY DECORUM

A positive learning experience depends upon respect among all members of this classroom community. Disregard or disrespect for the process, the group or toward any individual will result in removal from the class and may result in you being dropped from the course. Respectful discourse in discussion and email areas is expected and anonymous posting(s) will not be tolerated.

SEXUAL PREDATORS

Federal and State law requires a person designated as a "sexual predator or offender" to register with the Florida Department of Law Enforcement (FDLE). The FDLE then is required to notify the local law enforcement agency where the registrant resides, attends or is employed by an institution of higher learning. Information regarding sexual predators or offenders attending or employed by an institution of higher learning may be obtained from the local law enforcement agency with jurisdiction for the particular campus, by calling the FDLE hotline (1888-FL-PREDATOR) or (1-888-357-7332), or by visiting the FDLE website at the following internet address: www.fdle.state.fl.us/sexual_predators. If there are questions or concerns regarding personal safety, please contact the Campus Security Officer on your campus.

CLASS CONTRACT

The Class Contract assignment is this instructor's method of ensuring you know what you should expect from me, and what I expect from you. By returning the Class Contract to me, you are acknowledging that you:

- a. Understand the policies detailed in this Syllabus.
- b. Understand the expectations and due dates listed in the Course Calendar and Assessment Measures.
- c. Understand that you will be held accountable to the standards published in this document.
- d. The Class Contract must be submitted via the drop box by the date published in the Course Calendar and Assessment Measures.

By signing my name I acknowledge the above.

Print Name: _____ Date: _____

Signature: _____

RESEARCH PROJECT GUIDELINES:

Each student is expected to submit a comprehensive and individual PowerPoint project associated with the muscular system. The project is worth the equivalent of an exam grade, so adequate effort and time should be put into it. The project includes: 1 PowerPoint presentation (minimum of 20 slides) and a paper (minimum 750 words). The project is graded on **3** parameters: overall topic/information included (70%), creativity (15%), and effort (15%) invested. Each student must submit an individual project with original writing and ideas. All sources **MUST** be cited in a bibliography at the end of the paper! **Project is due by 11:59pm on 3/13/11(week 9).** NO LATE PROJECTS.

Each project **must** include:

- **application of anatomical/physiological muscular concepts to a relevant topic (such as muscular degenerative disease, drugs affecting the muscles, fetal muscular development and malfunction, congenital muscular disorders, the effect of exercise/ diet on the muscles, etc.)** Additional topics must be approved via email with the instructor.
- overall anatomy of the muscular system (major muscle groups, etc.), physiology and functions of the muscular system (including muscle cells, synergistic/antagonistic muscles, origin/insertion, how muscles are named, etc.)
- a **1-page written synopsis** (with your name on it) describing your project, your rationale for choosing the project, what you learned while doing it, and anything else you choose to include. This must be turned into the course drop box along with your project or 5 points will be deducted from your project grade.
- **PowerPoint** must be submitted underneath course drop box AND “Discussion 15: Projects” and you must reply to TWO of your classmates.
- **750-1000 word paper** must be submitted under course drop box.