

**UCC/UGC/ECCC**

Proposal for Course Change

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| **[ ]  FAST TRACK (Select if this will** **be a fast track item. Refer to**  [***Fast Track Policy***](http://www4.nau.edu/avpaa/UCCPolicy/Agenda_FastTrack_Consent.docx) **for eligibility)** |

# *If the changes included in this proposal are significant, attach copies of original and proposed syllabi in* [*approved university format*](http://www4.nau.edu/avpaa/UCCForms/syllabus.doc)*.*

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| --- | --- | --- | --- |
| 1. Course subject and number: | **BIO 416** | 2. Units: | **4** |

 [**See upper and lower division undergraduate course definitions**](http://www4.nau.edu/avpaa/UCCPolicy/Uplow.doc).

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| 3. College: | CEFNS  | 4. Academic Unit: | Biological Sciences |

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| 5. Current Student Learning Outcomes of the course.Students will gain an understanding of the development and three-dimensional structure of the human body in health and disease. Students will be exposed to a level of rigor that simulates the same course in the first year of Medical/Dental/Physician Assistant School, including the same textbooks, schedules, and expectations. | Show the proposed changes in this column (if applicable). Bold the proposed changes in this column to differentiate from what is not changing, and Bold with strikethrough what is being deleted. *(*[*Resources & Examples for Developing Course Learning Outcomes*](http://www4.nau.edu/avpaa/Assessment/CourseLearningOutcomesPDF_090712.pdf)*)*Students will **master ~~gain an understanding of~~ the ~~development and~~** three-dimensional structure of the human body in **development,** health**,** and disease. Students will be exposed to a level of rigor equivalent to the same course in the first year of Medical/Dental/Physician Assistant School, including the same textbooks, exam schedules, and expectations. |

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| 6. Current **title,** **description** and **units**. Cut and paste, in its entirety,from the current on-line academic catalog\* [**http://catalog.nau.edu/Catalog/**](http://catalog.nau.edu/Catalog/).**BIO 416 GROSS HUMAN ANATOMY (4)**Description: Investigation of human anatomy through hands-on study of human cadavers, models, and prosections. The course will cover skeletal, muscular, nervous, cardiopulmonary, digestive, and urogenital anatomy. Course contains both lecture and lab components. Course fee required. Letter grade only.Units: 4Prerequisite: BIO 201 and BIO 202 w/ grades of B or better  | Show the proposed changes in this column **Bold** the proposed changes in this column to differentiate from what is not changing, and **~~Bold with strikethrough~~**what is being deleted.**BIO 416 GROSS HUMAN ANATOMY (~~4~~ 6)**Description: Investigation of human anatomy through hands-on study of human cadavers, models, and prosections. The course will cover skeletal, muscular, nervous, cardiopulmonary, digestive, and urogenital anatomy. **~~Course contains both lecture and lab components~~**. 4 **hrs. lecture, 6 hrs. lab.** Course fee required. Letter grade only.Units: **~~4~~ 6**Prerequisite: BIO 201 and BIO 202 w/ grades of B or better  |

\*if there has been a previously approved UCC/UGC/ECCC change since the last catalog year, please copy the approved text from the proposal form into this field.

 7. Justification for course change.

**Justification for increasing BIO 416 from 4 units to 6 units:**

**1) The new schedule will bring Gross Anatomy at NAU into line with Gross Anatomy courses at other Universities. Gross Anatomy course are typically 6 units. See attached list for sample of Gross Anatomy courses at other universities and the number of units at these schools.**

**2) The new schedule will increase the number and depth of topics that may be covered. The number of lectures has been increased from 23 lectures per semester to 33 per semester. New topics include 6 lectures on the Head & Neck, a topic that was not covered in the 4 unit course. The other four new lectures cover Embryology in greater depth, and allow more time to cover the Mediastinum and the Abdomen.**

**3) The new schedule will allow students to more fully complete their dissections, and also better fulfill the donors’ wishes to contribute to the education of our students.**

**The number of hours each student spends in lab each week has been increased from 3 hours to 6 hours. The additional time is called a mandatory “Joint lab”. It is typical in Gross Anatomy courses for students to spend a great deal of their own time finishing their dissections and working with lab mates from different dissection teams, often very late at night. Because our sources of cadavers require lab instructor supervision at all lab meetings, the only way to increase the lab working time and follow the requirements of the user agreement is to hold these “Joint Labs” during class time.**

**4) The new schedule will eliminate lab exam scheduling problems.**

**Currently, because the lab room capacity is half that of the course enrollment, all lab exams must be held during lecture time because that is the only time that both lab groups can meet at the same time. Unfortunately, the lab exams don’t really fit in the 75 minute lecture periods, which causes problems for students if the lab exam runs a few minutes late. The new “Joint Labs” are 180 minutes long, and now lab exams may be scheduled during this longer period, eliminating scheduling problems on lab exam days.**

**5) Gross Anatomy courses across the county are typically 6 unit courses. The following is a sample of gross anatomy courses at different universities with the number of units:**

**Georgetown University School of Medicine 5 credit hours**

**http://som.georgetown.edu/prospectivestudents/specialprograms/summer/courses/#anatomy**

**University of Tennessee Anth 695 9 credit hours**

**http://catalog.utk.edu/preview\_course\_nopop.php?catoid=12&coid=75515**

**Creighton University BMS 603 Human Gross Anatomy 6 credit hours**

**http://medschool.creighton.edu/**

**Texas Chiropractic College 7 credit hours**

**http://www.txchiro.edu**

**Case Western Reserve Master’s in Anatomy: Human Gross Anatomy 6 credits**

**http://www.case.edu/med/anatomy/graduateprograms.html**

**Indiana University School of Medicine at Terre Haute**

**7 credit hours**

**http://terrehaute.medicine.iu.edu/courses/first-year/gross-anatomy/**

**Des Moines University Master's of Science in Anatomy 6.5 credit hours**

**http://www.dmu.edu/msa/curriculum**

**Rochester Institute of Technology Human Gross Anatomy 6 credit hours**

**For Medical Illustration BFA**

**http://www.rit.edu/programs/medical-illustration-bfa**

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| 8. Effective **BEGINNING** of what term and year? | **Fall 2014** |
| [**See effective dates calendar**](http://www4.nau.edu/avpaa/timelines/1314Effective.xls). |  |

**IN THE FOLLOWING SECTION, COMPLETE ONLY WHAT IS CHANGING**

|  |  |
| --- | --- |
| **CURRENT** | **PROPOSED** |
| Current course subject and number: | Proposed course subject and number: |
| Current number of units:4 | Proposed number of units:**6** |
| Current short course title: | Proposed short course title (max 30 characters):  |
| Current long course title: | Proposed long course title (max 100 characters):  |
| Current grading option:letter grade [ ]  pass/fail [ ]  or both [ ]  | Proposed grading option:letter grade [ ]  pass/fail [ ]  or both [ ]  |
| Current repeat for additional units: | Proposed repeat for additional units: |
| Current max number of units: | Proposed max number of units: |
| Current prerequisite: | Proposed prerequisite (include rationale in the justification): |
| Current co-requisite: | Proposed co-requisite (include rationale in the justification): |
| Current co-convene with: | Proposed co-convene with: |
| Current cross list with: | Proposed cross list with: |

9. Is this course in any plan (major, minor, or certificate) or sub plan (emphasis)? Yes [x]  No [ ]

 If yes, describe the impact. If applicable, include evidence of notification to and/or response

 from each impacted academic unit.

**Biomedical Science BS (elective), Exercise Science BS (elective).**

10. Is there a related plan or sub plan change proposal being submitted? Yes [x]  No [ ]

 If no, explain.

**This change will have no impact on the Exercise Science B.S. requirements.**

11. Does this course include combined lecture and lab components?            Yes [x]  No [ ]

 If yes, include the units specific to each component in the course description above.

**Answer 12-15 for UCC/ECCC only:**

12. Is this course an approved Liberal Studies or Diversity course?          Yes [ ]  No [x]

    If yes, select all that apply.   Liberal Studies [ ]    Diversity [ ]    Both [ ]

13. Do you want to remove the Liberal Studies or Diversity designation?            Yes [ ]  No [ ]

 If yes, select all that apply.   Liberal Studies [ ]    Diversity [ ]     Both [ ]

14. Is this course listed in the [**Course Equivalency Guide**](https://aztransmac2.asu.edu/cgi-bin/WebObjects/Admin_CEG.woa/wa/ByInst?inst=NAU)?                      Yes [ ]  No [x]

15. Is this course a [**Shared Unique Numbering**](https://aztransmac1.asu.edu/cgi-bin/WebObjects/ATASS.woa/wa/SUNList?S=X) (SUN) course?                Yes [ ]  No [x]

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| **FLAGSTAFF MOUNTAIN CAMPUS** |  |
| **Scott Galland** | **2/12/2014** |
| Reviewed by Curriculum Process Associate | Date |
|  |  |
| **Approvals**: |  |
|  |  |
| Department Chair/Unit Head (if appropriate) | Date |
|  |  |
| Chair of college curriculum committee | Date |
|  |  |
| Dean of college | Date |
|  |  |
| **For Committee use only:** |  |
|  |  |
| UCC/UGC Approval | Date |

Approved as submitted: Yes [ ]  No [ ]

Approved as modified: Yes [ ]  No [ ]

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| --- | --- |
| **EXTENDED CAMPUSES** |  |
|  |  |
| Reviewed by Curriculum Process Associate | Date |
|  |  |
| **Approvals:**  |  |
|  |
| Academic Unit Head | Date |
|  |
| Division Curriculum Committee (Yuma, Yavapai, or Personalized Learning) | Date |
|  |
| Division Administrator in Extended Campuses (Yuma, Yavapai, or Personalized Learning) | Date |
|  |
| Faculty Chair of Extended Campuses Curriculum Committee (Yuma, Yavapai, or Personalized Learning) | Date |
|  |
| Chief Academic Officer; Extended Campuses (or Designee) | Date |
|  |  |

Approved as submitted: Yes [ ]  No [ ]

Approved as modified: Yes [ ]  No [ ]

**CURRENT 4 UNIT SYLLABUS**

General Information:

* Biology Department
* BIO 416-1
* Fall 2013
* Lecture: 9:35 to 10:50 Tuesday & Thursday; Lab:12:00 to 3:00 Tuesday & Thurs.
* Lecture is held in Chem 233, Lab is held in Health Professions 232
* Lab Exams are held during lecture time (!), in Health Professions 232
* Instructor’s name: Dr. David Able
* Office address: Biology 428

always reachable by email: david.able@nau.edu Don't use BBLearn email.

* Office hours:

After all class meetings and by appointment. There is also time to meet during your lab.

* Course URL : in your 'My Bb Learn' page.
* Graduate TA: McKenna Thompson (mkw56@nau.edu)
* Undergraduate TA: Diana Waters (dkw46@nau.edu)

**Course prerequisites:**

Biology 201 and 201 with at least a B in both classes. If you haven't met this requirement, and somehow were able to enroll in this course without my permission, you will be administratively dropped.

**Course description:**

 Investigation of human anatomy through hands-on study of human cadavers, models, and prosections.  The course will cover skeletal, muscular, nervous, cardiopulmonary, digestive, and urogenital anatomy.  Course fee required.  One Letter grade only, for lecture and laboratory together.

**Student Learning Expectations/Outcomes for this Course**

Students will gain an understanding of the development and three-dimensional structure of the human body in health and disease. Students will be exposed to a level of rigor that simulates the same course in the first year of mMedical/Dental/Physician Assistant School, including the same textbooks, schedules, and expectations.

**Course structure/approach**:

Course contains both lecture and lab components.

**Required materials:**

(Title with edition, if more than one), author(s), approximate price, ISBN). All are published by Lippincott, Williams, and Wilkins. Some titles are available as ebooks, all are the latest editions.

 1) Essential Clinical Anatomy (4th edition) by Moore, Agur and Dalley 2011 (~75.00) ISBN: 9780781799157

 2) Langman's Essential Medical Embryology by Sadler 2005 ISBN: 9780781755719

(Those of you with sharp eyes will realize that this book differs from the one listed in Louie. That’s the bookstore’s mistake. Their mistake is carried over into Louie, and I didn’t notice it until it was too late. Don’t worry, this book will work, but it’s more detailed than we need.)

 3) Grant's Atlas of Anatomy (13th edition) by Agur and Dalley 2013 (~85.00) ISBN: 9781608317561

 4) Grant's Dissector (15th edition only) by Tank 2012 (~57.00) ISBN: 9781609136062

Note: There are Dissectors for you to use in the lab, but they may not be removed from the lab room. To know what you are supposed to do in the lab, you have to read ahead in your own clean dissector that you keep at home. It is also important to have your own clean copy at home to prepare for class and for lab exams.

 5) A white lab coat. Buy one locally, or order online. It's ok to not have one the first week. If you already own a lab coat of a different color, you should use that.

All other materials are supplied by the course, including dissection tools, safety glasses, and gloves.

**Assessment of Student Learning Outcomes**

* Methods of Assessment:
	+ You get one letter grade at the end of this course. 90% of your grade is based on your performance in written exams: (In lecture: long answer, short answer, and multiple choice questions. In lab: correctly identifying structures indicated on cadavers and other anatomical specimens). Except for the final Lecture Exam, the exams are not meant to be cumulative, although knowledge of some previous material might be necessary. 10% of your grade is based on Competencies, including Participation and Professionalism, dissection quality, and your thoughtful completion of Self Awareness and Self Growth exercises. (Be aware that medical schools are increasingly adopting competency-based curricula. More on competencies in class.
* Timeline for Assessment: Exam dates are listed on the last page. Subject to change with notice.
	+ The lab exam final date and time is to be announced.
	+ The lecture final exam is to be announced.

**Grading System**

The grading scale is a straight scale:

90-100% = A

80- 89.999% = B

70- 79.999% = C

60- 69.999% = D

0-59.999% = F

Lecture Exam 1 100 points

Lab Exam 1 100 points

Lecture Exam 2 100 points

Lab Exam 2 100 points

Lecture Exam 3 100 points

Lab Exam 3 (aka Final Lab Exam, this is non cumulative) 100 points

Final Exam (this is cumulative) 100 points

Competencies 40 points

Professionalism & Participation 40 points

 TOTAL: 780 points

I write virtually all lecture exam questions based on the slides, drawings, and discussions we have in class. I provide sample lecture exam questions at appropriate times.

Skim assigned reading before class. Make sure you understand the point of all the slides I show. You must take extensive notes. Passively sitting in lecture, and then laboriously reading your texts isn't the best use of your time. Know roughly what we're doing in lab before you walk in the door-- this means reading the assignment in the dissector, taking note of the boldfaced terms, and looking up the appropriate figures in your atlas. Knowing what you're looking for in lab before you get there is crucial for efficient learning.

This is a course full of highly motivated, academically successful, and experienced students. Don’t wait around to study. Do see me if you have trouble--right away. This is not a conceptually difficult class, but it is a class that is difficult because there is so much to know. Don’t get behind.

Course policies:

* Retests/makeup tests: None. If you know you must miss a scheduled exam, let me know as soon as possible. Because the class is small, it might be possible to reschedule the exam.
* Attendance in the lecture class meeting: Attendance in lecture is necessary, but not required. But, unless you're brilliant, you can't do well if you miss class. I appreciate knowing if you are going to miss a lecture class meeting.
* Attendance in labs: Your absence from lab reduces the amount of work your team can accomplish, and how much your team, and the rest of the class, can learn. We have limited time to perform a very in-depth dissection. Multiple absences from lab will have a significant negative impact on your final grade, and I will most likely ask you to drop the class, or I will administratively drop you.
* Rules: One big rule: The Respect Rule. Respect me, and respect your fellow students. Any sort of harassment will not be tolerated.
* Statement on plagiarism and cheating: See the URL below. Cheating in class is poison to hardworking students and has a terrible effect on my, and class, morale. Any student who tries to gain an unfair advantage, even if she doesn't succeed, will be immediately reported to the Dean of Undergraduate Studies. This includes looking at another student's paper during exams.

University policies: See the Safe Working and Learning Environment, Students with Disabilities, Institutional Review Board, and Academic Integrity policies at: <http://www2.nau.edu/academicadmin/UCCPolicy/plcystmt.html>.

# Lab Safety, Policy, Procedures:

It is a very unusual opportunity for undergraduates to be able to take Gross Anatomy. The bodies we use are donated by the individuals themselves because they wanted to make a contribution to health professionals' understanding of the human body. We could lose our privilege to learn anatomy this way for any unprofessional behavior. No photography of donors or donor parts is allowed. Therefore, no cell phones may enter the lab. Just turn it off and leave it in your locker.

You will spend hours working on embalmed human bodies. The lab air circulation has been tested for compliance with quality standards, but the tissue you'll dissect contains formaldehyde and other chemicals that are known to be health risks under some circumstances unless proper precautions are taken. If you are pregnant, or become pregnant during this course, you should tell your physician that you are working with embalmed cadavers. Use of safety glasses, gloves, and lab coats are required at all times in the lab (Exception: no protective equipment is used during lab exams). You must take your lab coat home to wash it, usually every two weeks. Stained and stinky lab coats are bad for morale.

Use of contact lenses in the lab is strongly discouraged. Wear eyeglasses instead. If you wear glasses, you do not need to use safety glasses in lab.

You can seriously hurt yourself or someone else by careless use of a scalpel. Know where your scalpel is at all times. When you're not using it, put it down in a safe place, where no one will accidentally touch it. Avoid the habit of holding more than one instrument in one hand: You can forget you have a scalpel in your hand, and accidentally cut yourself. All used scalpel blades must be placed in the sharps container. If your blade is still sharp at the end of class, you can leave it on your handle for the next person to use.

There is a class fee of $150.00. This is a lot of money, but it doesn't begin to cover the costs of the materials you'll use in the lab. The only other thing you have to pay for is your lab coat. Buy a white one at any local supplier. If you already have one, any color is fine. If you don't have a lab coat in the first week, just wear clothes that you don't mind getting smelly. You have a shared locker to use in the Health Professions Building, room 234. This room is accessed through the dissection lab.

The dissection tools you use will be provided. They do not leave the lab. After each lab, wipe off your individual and group tools with a paper towel, and place them in the designated spots in the black cabinet that goes with your donor. All tools are inventoried at the end of each lab. Students must pay for replacement of lost instruments. If you drop an instrument into your tank, let us know so we can retrieve it.

A messy lab is bad for morale. Custodians are not allowed into the lab, and so we do the cleaning in the lab. Mostly this means we don't make it messy in the first place. If you drop tissue on the floor, stop and clean it up before someone steps on it. One of us mops up after each class.

All donor tissues go in the communal Medical Waste container. Used gloves and paper towels go in the large green container next to the locker room door and the smaller container on the other side of the room.

No student may be in the lab except during lab times and other times announced by me. No student may bring visitors into the lab without my permission. No food or drink is allowed in the lab. As if I had to tell you.

Lab Review Sessions are scheduled by consensus, and take place in the days proceeding Lab Exams. During this time, students can complete dissections, and give and receive tours of the four cadavers in the room. Because each cadaver is shared by two teams, many structures you'll be responsible for knowing will have been dissected by someone else, even on your cadaver. Attendance is not required in Lab Review Sessions, but is strongly encouraged because this is the time you can communicate with the other dissection team in lab. Hints about what is on the upcoming exam and new material are never introduced at Lab Review Sessions.

 Also: The TAs will schedule open labs based on class votes for available times.

Lab exams: You are expected to be able to identify all of the bold-faced terms that are in your Dissector Assignments. I post the Dissector Assignments near the beginning of each exam segment. This means that all the correct answers on your lab exams are the bold-faced terms that appear in the parts of your Dissector that are assigned to you. The number of terms you are expected to know is in the hundreds for every exam, and there are usually about 50 structures marked on the cadavers for you identify.

Other policies will be announced in class when appropriate.

Class meeting dates and subjects:

All appropriate reading is announced in class or by email. The following is a guide. The topics and dates will shift around as necessary. Final exam dates do not change.

 Lecture Lab Topic

1. R August 29 Introduction, review, fascia, nerves lab intro, skinning back, limbs

2. T Sept 3 Back 1 Nerve 1 lab intro, skinning back, limbs

3. R Sept 5 Back 2 Nerve 2 back, skinning limbs

4. T Sept 10 Back 3 Nerve 3 back, skinning limbs

5. R Sept 12 Back 4 Nerve 4 laminectomy, limbs

6. T Sept 17 Back 5 laminectomy, limbs

7. R Sept 19 Competencies Limbs 1 thorax, limbs

8. T Sept 24 Limbs 2 thorax, limbs

 R Sept 26 LECTURE EXAM 1 thorax, mediastinum, limbs

9. T Oct 1 Limbs 3 thorax, mediastinum, limbs

 R Oct 3 LAB EXAM 1 (held during lecture time) mediastinum, limbs

10. T Oct 8 Embryology 1 mediastinum, limbs

11. R Oct 10 Embryology 2 mediastinum

12. T Oct 15 Thorax 1 mediastinum

13. R Oct 17 Thorax 2 Abdomen, heart

14. T Oct 22 Heart 1 Abdomen 1 Abdomen, heart

15. R Oct 24 Heart 2 Abdomen 2 Abdomen, heart

16. T Oct 29 Heart 3 Abdomen 3 Abdomen, heart

 R Oct 31 LECTURE EXAM 2 Abdomen

 T Nov 5 LAB EXAM 2 (held during lecture time) Abdomen

17. R Nov 7 Abdomen 4 Posterior Mediastinum Posterior Abdomen, Post. Mediastinum

18. T Nov 12 Limbs 4 Posterior Abdomen, Post. Mediastinum

19. R Nov 14 Limbs 5 Pelvis & Perineum, Head & Neck

20. T Nov 19 Limbs 6 Pelvis & Perineum, Head & Neck

21. R Nov 21 Pelvis & Perineum 1 P&P, H&N, Limbs

22. T Nov 26 Pelvis & Perineum 2

 R Nov 28 Thanksgiving break P&P, H&N, Limbs

23. T Dec 3 P & P 3, Head & Neck 1

24. R Dec 5 Head & Neck 2 Open Lab, attendance not required.

 T Dec 10 FINAL LAB EXAM (during lecture time) (This is the day before reading week)

 R Dec 13 LECTURE EXAM 3

M DEC 16 FINAL EXAM 7:30 – 9:30 AM, Monday December 16 Chem 233

13 Thursday labs, 13 Tuesday labs, 1 Open Lab on Thursday December 5.

**PROPOSED 6 UNIT SYLLABUS**

General Information:

* Biology Department
* BIO 416
* Fall 2013
* Lecture: **TBD** Monday, Wednesday, and Friday; Lab: **TBD** Monday or Wednesday, and Friday
	+ - Section 1: Your labs will meet Monday and Friday
		- Section 2: Your labs will meet Wednesday and Friday
		- Lecture is held in Chem 233, Lab is held in Health Professions 232
* Instructor’s name: Dr. David Able
* Office address: Biology 428

always reachable by email: david.able@nau.edu Don't use BBLearn email.

* Office hours:

After all class meetings and by appointment. There is also time to meet during your lab.

* Course URL : in your 'My Bb Learn' page.
* Graduate TA: TBA
* Undergraduate TA: TBA

**Course prerequisites:**

Biology 201 and 201 with at least a B in both classes. If you haven't met this requirement, and somehow were able to enroll in this course without my permission, you will be administratively dropped.

**Course description**:

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**Course structure/approach**:

Course contains both lecture and lab components.

**Required materials:**

(Title with edition, if more than one), author(s), approximate price, ISBN). All are published by Lippincott, Williams, and Wilkins. Some titles are available as ebooks, all are the latest editions.

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* Methods of Assessment:
	+ You get one letter grade at the end of this course. 90% of your grade is based on your performance in written exams: (In lecture: long answer, short answer, and multiple choice questions. In lab: correctly identifying structures indicated on cadavers and other anatomical specimens). Except for the final Lecture Exam, the exams are not meant to be cumulative, although knowledge of some previous material might be necessary. 10% of your grade is based on Competencies, including Participation and Professionalism, dissection quality, and your thoughtful completion of Self Awareness and Self Growth exercises. (Be aware that medical schools are increasingly adopting competency-based curricula. More on competencies in class.
* Timeline for Assessment: Exam dates are listed on the last page. Subject to change with notice.
	+ The lab exam final date and time is to be announced.
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**Grading System**

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90-100% = A

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Lecture Exam 1 100 points

Lab Exam 1 100 points

Lecture Exam 2 100 points

Lab Exam 2 100 points

Lecture Exam 3 100 points

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Course policies:

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* Attendance in the lecture class meeting: Attendance in lecture is necessary, but not required. But, unless you're brilliant, you can't do well if you miss class. I appreciate knowing if you are going to miss a lecture class meeting.
* Attendance in labs: Your absence from lab reduces the amount of work your team can accomplish, and how much your team, and the rest of the class, can learn. We have limited time to perform a very in-depth dissection. Multiple absences from lab will have a significant negative impact on your final grade, and I will most likely ask you to drop the class, or I will administratively drop you.
* Rules: One big rule: The Respect Rule. Respect me, and respect your fellow students. Any sort of harassment will not be tolerated.
* Statement on plagiarism and cheating: See the URL below. Cheating in class is poison to hardworking students and has a terrible effect on my, and class, morale. Any student who tries to gain an unfair advantage, even if she doesn't succeed, will be immediately reported to the Dean of Undergraduate Studies. This includes looking at another student's paper during exams.

University policies: See the Safe Working and Learning Environment, Students with Disabilities, Institutional Review Board, and Academic Integrity policies at: <http://www2.nau.edu/academicadmin/UCCPolicy/plcystmt.html>.

# Lab Safety, Policy, Procedures:

It is a very unusual opportunity for undergraduates to be able to take Gross Anatomy. The bodies we use are donated by the individuals themselves because they wanted to make a contribution to health professionals' understanding of the human body. We could lose our privilege to learn anatomy this way for any unprofessional behavior. No photography of donors or donor parts is allowed. Therefore, no cell phones may enter the lab. Just turn it off and leave it in your locker.

You will spend hours working on embalmed human bodies. The lab air circulation has been tested for compliance with quality standards, but the tissue you'll dissect contains formaldehyde and other chemicals that are known to be health risks under some circumstances unless proper precautions are taken. If you are pregnant, or become pregnant during this course, you should tell your physician that you are working with embalmed cadavers. Use of safety glasses, gloves, and lab coats are required at all times in the lab (Exception: no protective equipment is used during lab exams). You must take your lab coat home to wash it, usually every two weeks. Stained and stinky lab coats are bad for morale.

Use of contact lenses in the lab is strongly discouraged. Wear eyeglasses instead. If you wear glasses, you do not need to use safety glasses in lab.

You can seriously hurt yourself or someone else by careless use of a scalpel. Know where your scalpel is at all times. When you're not using it, put it down in a safe place, where no one will accidentally touch it. Avoid the habit of holding more than one instrument in one hand: You can forget you have a scalpel in your hand, and accidentally cut yourself. All used scalpel blades must be placed in the sharps container. If your blade is still sharp at the end of class, you can leave it on your handle for the next person to use.

There is a class fee of $150.00. This is a lot of money, but it doesn't begin to cover the costs of the materials you'll use in the lab. The only other thing you have to pay for is your lab coat. Buy a white one at any local supplier. If you already have one, any color is fine. If you don't have a lab coat in the first week, just wear clothes that you don't mind getting smelly. You have a shared locker to use in the Health Professions Building, room 234. This room is accessed through the dissection lab.

The dissection tools you use will be provided. They do not leave the lab. After each lab, wipe off your individual and group tools with a paper towel, and place them in the designated spots in the black cabinet that goes with your donor. All tools are inventoried at the end of each lab. Students must pay for replacement of lost instruments. If you drop an instrument into your tank, let us know so we can retrieve it.

A messy lab is bad for morale. Custodians are not allowed into the lab, and so we do the cleaning in the lab. Mostly this means we don't make it messy in the first place. If you drop tissue on the floor, stop and clean it up before someone steps on it. One of us mops up after each class.

All donor tissues go in the communal Medical Waste container. Used gloves and paper towels go in the large green container next to the locker room door and the smaller container on the other side of the room.

No student may be in the lab except during lab times and other times announced by me. No student may bring visitors into the lab without my permission. No food or drink is allowed in the lab. As if I had to tell you.

Lab Review Sessions are scheduled by consensus, and take place in the days proceeding Lab Exams. During this time, students can complete dissections, and give and receive tours of the four cadavers in the room. Because each cadaver is shared by two teams, many structures you'll be responsible for knowing will have been dissected by someone else, even on your cadaver. Attendance is not required in Lab Review Sessions, but is strongly encouraged because this is the time you can communicate with the other dissection team in lab. Hints about what is on the upcoming exam and new material are never introduced at Lab Review Sessions.

 Also: The TAs will schedule open labs based on class votes for available times.

Lab exams: You are expected to be able to identify all of the bold-faced terms that are in your Dissector Assignments. I post the Dissector Assignments near the beginning of each exam segment. This means that all the correct answers on your lab exams are the bold-faced terms that appear in the parts of your Dissector that are assigned to you. The number of terms you are expected to know is in the hundreds for every exam, and there are usually about 50 structures marked on the cadavers for you identify.

Other policies will be announced in class when appropriate.

Class meeting dates and subjects: All appropriate reading is announced in class or by email. The following is a guide. The topics and dates will shift around as necessary. Final exam dates do not change.

(Note: Lecture Topics in RED print are new lectures. Lab topics in RED print indicate the new proposed joint labs.)

**Course Outline:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Week** | **Day** | **Date** | **Lecture Topic** | **Lab topic** | **Reading** |
| 1   | M | 28-Aug | Intro, integument | Preparing the Donor | Intro, integument ECA pp 1-52 |
| W | 30-Aug | Nervous System 1 | Preparing the Donor | Anatomy Review ECA pp 1-52 |
| F | 2-Sep | NO CLASS | Joint Lab | ECA Back pp 271-310 |
| 2   | M | 4-Sep | Nervous System 2 | The Back & Posterior Limbs | ECA Back pp 271-310 |
| W | 6-Sep | General Embryology 1 | The Back & Posterior Limbs |  Langmans: Chapters 1,2 |
| F | 9-Sep | General Embryology 2 | Joint Lab | Langmans Ch. 3 |
| 3   | M | 11-Sep | Back 1 Surface Anatomy | The Back & Posterior Limbs | ECA Back pp 271-310 |
| W | 13-Sep | Back 2 Muscles | The Back & Posterior Limbs | Nervous system 2 |
| F | 16-Sep | Back 3 Nervous, Blood Supply | Joint Lab | ECA Back pp 271-310 |
| 4   | M | 18-Sep | Back 4 Development | The Back and Gluteal Region |  ECA Gluteal Region pp 340-347 |
| W | 20-Sep | Back 5 Neural tube defects | The Back and Gluteal Region | Langmans: Neural tube defects Ch 4 |
| F | 23-Sep | General Limbs 1 | Joint Lab | ECA Lower Limb pp 315-340 |
| 5   | M | 25-Sep | General Limbs 2 | The Back and Gluteal Region | ECA Upper Limb Posterior Arm 402-416 |
| W | 27-Sep | LECTURE EXAM 1 | The Back and Gluteal Region |   |
| F | 30-Sep | Thorax 1 Abdomen 1 | LAB EXAM 1 | ECA Thorax 53-113 |
| 6   | M | 2-Oct | Thorax 2 Abdomen 2 | Thorax Abdomen Introduction | ECA Thorax 53-113 |
| W | 4-Oct | Thorax 3 Abdomen 3 | Thorax Abdomen Introduction | ECA Abdomen pp 117-197 |
| F | 7-Oct | Limbs 1: Arm | Joint Lab | ECA Upper Limb Anterior Arm |
| 7   | M | 9-Oct | Limbs 2: Thigh | Thorax 1 Abdomen 2 | ECA Upper Limb Anterior Arm |
| W | 11-Oct | Tharax 4 Abdomen 4: Embryology | Thorax 1 Abdomen 2 | Langmans Ch 5 |
| F | 14-Oct | Thorax 5 Abdomen 5: Embryology | Joint Lab | Langmans Ch 5 |
| 8   | M | 16-Oct | Thorax 6 Abdomen 6 | Thorax 2 Abdomen 3 | ECA Abdomen pp 117-197 |
| W | 18-Oct | Thorax 7 Abdomen 7 | Thorax 2 Abdomen 3 | ECA Abdomen pp 117-197 |
| F | 21-Oct | Thorax 8 Abdomen 8 | Joint Lab | ECA Abdomen pp 117-197 |
| 9   | M | 23-Oct | Thorax 9 Abdomen 9 | Thorax 3: Heart | ECA Heart 102-109 |
| W | 25-Oct | LECTURE EXAM 2 | Thorax 3: Heart | ECA Heart 102-109 |
| F | 28-Oct | Posterior Abdomen/Mediastinum | LAB EXAM 2 | ECA Post Abd Wall pp 190-197 |
| 10   | M | 30-Oct | Posterior Abdomen/Mediastinum | Abdomen 4 | ECA Post Abd Wall pp 190-197 |
| W | 1-Nov | Limbs 3: Anterior Leg | Abdomen 4 | ECA Lower Limb 356-359 |
| F | 4-Nov | Limbs 4: Posterior Leg | Joint Lab | ECA Lower Limb 350-356 |
| 11   | M | 6-Nov | Head & Neck 1 | Abdomen 5: Removal of GI Tract | ECA Head 491-578 |
| W | 8-Nov | Head & Neck 2 | Abdomen 5: Removal of GI Tract | ECA Head 491-578 |
| F | 11-Nov | Head & Neck 3 | Joint Lab | ECA Head491-578 |
| 12   | M | 13-Nov | Pelvis & Perineum 1 | Pelvis & Perineum: Hemisection | ECA Pelvis & Perineum 203-269 |
| W | 15-Nov | Pelvis & Perineum 2 | Pelvis & Perineum: Hemisection | ECA Pelvis & Perineum 203-269 |
| F | 18-Nov | Pelvis & Perineum 3 | Joint Lab | ECA Pelvis & Perineum 203-269 |
| 13   | M | 20-Nov | LECTURE EXAM 3 | Head & Neck 1 |   |
| W | 22-Nov | Head & Neck 4 | Head & Neck 1 | ECA Neck 584-630 |
| F | 25-Nov | Head & Neck 5 | Joint Lab | ECA Neck 584-630 |
| 14   | M | 27-Nov | Head & Neck 6 | Head & Neck 2 | ECA Neck 584-630 |
| W | 29-Nov | Pelvis & Perineum 4 | Head & Neck 2 | ECA Pelvis & Perineum 203-269 |
| F | 2-Dec | Pelvis & Perineum 5 | Joint Lab | ECA Pelvis & Perineum 203-269 |
| 15   | M | 4-Dec | Pelvis & Perineum 6 | LAB FINAL EXAM | ECA Pelvis & Perineum 203-269 |
| W | 6-Dec | Pelvis & Perineum 7 | Pelvis & Perineum, Head & Neck | ECA Pelvis & Perineum 203-269 |
| F | 9-Dec | FINALS WEEK |   |   |
|      |   | 11-Dec | FINALS WEEK |   |   |
|   | 13-Dec | FINALS WEEK | CUMULATIVE FINAL EXAM |   |
|   | 16-Dec | FINAL LECTURE EXAM 7:30 - 9:30 |   |   |
|   | 18-Dec | COMMENCEMENT |   |   |