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Spring 2020 (1/21/20—5/14/20)

Mission Statement: Mountain View College empowers people and transforms communities

Prerequisite Required: SCIT 1407. Course Description: A continuation of Applied Human Anatomy and Physiology I designed for students considering a career in the health field. The following body systems are included: digestive, respiratory, cardiovascular, lymphatic/immune, renal/excretory, reproductive, and an expansion of endocrine function. Emphasis is on homeostasis. This course is intended for students seeking to complete an Applied Science Degree. (3 Lec.3 Lab.) WECM Courses: Designated by the Texas Higher Education Coordinating Board as workforce education (technical) courses offered for credit and CEUs (Continuing Education Units). While these courses are designed to transfer among state community colleges, they are not designed to automatically transfer to public four-year colleges and universities.

Materials for Instruction:
Course Materials/Supplies Needed
Note: Table of contents can be accessed at the following link: [https://openstax.org/details/books/anatomy-and-physiology](https://openstax.org/details/books/anatomy-and-physiology)
(2) Visible Body Courseware is needed to complete lab exercises and online quizzes. Therefore, Visible Body Courseware is REQUIRED for this course. Students will access this material through a web link provided by their instructor and will have 2 weeks FREE access before payment is necessary. Students can pay $49.99 through the provided link or purchase a code at the bookstore if necessary.
An open access (free) laboratory manual adopted from the OpenStax textbook and Visible Body Courseware will be provided to students in blackboard. The manual is broken up by units. Students are responsible for printing out and turning in pages of the manual designated as student work.
Courseware link: [https://courseware.visiblebody.com/courses/7927/join?join_course_token=P5Co1dYapbAqxDZE XP1EsGxQ&site_license=false](https://courseware.visiblebody.com/courses/7927/join?join_course_token=P5Co1dYapbAqxDZE XP1EsGxQ&site_license=false)
Click the link to watch the short video, Visible Body Courseware: Make the most out of your A&P course: [https://www.youtube.com/watch?v=l3ynxTH9-DM&feature=youtu.be%E2%80%8B%E2%80%8B%E2%80%8B%E2%80%8B%E2%80%8B%E2%80%8B%E2%80%8B%E2%80%8B%E2%80%8B%E2%80%8B%E2%80%8B](https://www.youtube.com/watch?v=l3ynxTH9-DM&feature=youtu.be%E2%80%8B%E2%80%8B%E2%80%8B%E2%80%8B%E2%80%8B%E2%80%8B%E2%80%8B%E2%80%8B%E2%80%8B%E2%80%8B%E2%80%8B%E2%80%8B)
(3) Dissecting gloves, Goggles (available in the College Bookstore)
(4) Scantrons: Four 882 E (Please keep these handy and free of wrinkles)
(5) Suggested: Colored MAP pencils. Loose leaf notebook and dividers for Lecture and Lab notes and assignments.
Core Objectives:

- **Critical Thinking Skills** - to include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information
- **Communication Skills** - to include effective development, interpretation and expression of ideas through written, oral and visual communication
- **Empirical and Quantitative Skills** - to include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions
- **Teamwork** - to include the ability to consider different points of view and to work effectively with others to support a shared purpose or goal

Educational Outcomes: This course is divided into 3 units. All objectives, which are decided by the district curriculum committee, are measurable or observable and will be evaluated. Different modes of instruction will be utilized for presentation and evaluation.

Lecture Learning Outcomes

Upon successful completion of this course, students will:

1. Use anatomical terminology to identify and describe locations of major organs of each system covered.
2. Explain interrelationships among molecular, cellular, tissue, and organ functions in each system.
3. Describe the interdependency and interactions of the systems.
4. Explain contributions of organs and systems to the maintenance of homeostasis.
5. Identify causes and effects of homeostatic imbalances.
6. Describe modern technology and tools used to study anatomy and physiology.

LAB: The lab provides a hands-on learning experience for exploration of human system components and basic physiology. Systems to be studied include endocrine, cardiovascular, immune, lymphatic, respiratory, digestive (including nutrition), urinary (including fluid and electrolyte balance), and reproductive (including human development and genetics).

Lab Learning Outcomes

Upon successful completion of this course, students will:

1. Apply appropriate safety and ethical standards.
2. Locate and identify anatomical structures.
3. Appropriately utilize laboratory equipment, such as microscopes, dissection tools, general lab ware, physiology data acquisition systems, and virtual simulations.
4. Work collaboratively to perform experiments.
5. Demonstrate the steps involved in the scientific method.
6. Communicate results of scientific investigations, analyze data and formulate conclusions.
7. Use critical thinking and scientific problem-solving skills, including, but not limited to, inferring, integrating, synthesizing, and summarizing, to make decisions, recommendations, and predictions.

Attendance

Attendance is Mandatory and class participation is expected. It is important that you arrive to class on time and prepared by reading the assignment. Students are expected to attend all classes and to contact the instructor when an absence occurs. If for some reason you must leave class early, you should inform the instructor prior to the start of class of your reason for leaving early. If an absence occurs, you MUST contact your instructor regarding work you have missed. If you are unable to complete this course, YOU must withdraw by Thursday, April 16, 2020 to receive a “W” on your grade report. Withdrawal from a course is a formal procedure, which YOU must initiate; your instructor cannot do it for you. You may withdraw at the Admissions or Counseling Offices or online at https://econnect.dcccd.edu/. If you stop attending class and fail to withdraw, YOU will receive a grade, usually an “F”. Note: Students often drop courses when help is available that would enable them to continue. Discuss your plans with your instructor if you feel the need to withdraw. If you are not present in lecture or lab when attendance is taken, you will be counted absent. You will not be allowed to take quizzes or receive credit for assignments that day.

Course Calendar: See back page

Class Procedures – Successful completion of this course should be accomplished if you:

1) attend and participate in class and lab
2) read and study the textbook and lab manual
3) use the resources available on eCampus (i.e. power points, study guides, websites)
4) All students must have your name, course and section number, student ID number, and faculty name on all assignment to receive credit.
5) **Late work will not be accepted.**
6) Study Guides, Study Sheets, for Lecture Exams and Power Points are posted on eCampus.
7) **Cell phones and other electronic devices are not permitted to ring in the class or lab. Please set on silent or vibrate. Please do not send or receive text messages in class or lab.**
8) **Students who bring computers to class will be allowed to use them for classwork only.**

**Lectures**—Lecture topics will be covered on eCampus with supplemental lectures in class.

**Lecture Examinations**

Lecture examinations will be given online via blackboard in the Testing Center (S-2101). On Saturdays they will be given in W144. The Testing Center phone number is 214-860-8571. They will be not be timed and set for no backtracking. See course calendar for exam dates. You can access the exams in the blackboard examination tab. Follow instructions provided prior to taking exam. The last Lecture Exam will be given in the classroom with a retest on eCampus.

**Needed to take lecture exam:**
- MVC student ID or picture ID.
- In the event of a missed exam the instructor must be notified within 24 hours of the scheduled exam and documentation will be required for absence. **Exams will not be given passed the deadline.**
- Late work will not be accepted after the deadline without a valid excuse.
- Study Guides, Study Sheets and Outlines for Lecture Exams are posted on eCampus.
- You are not permitted to use notes, textbook, or online resources to assist you in taking your examination. Do not take them with you to the Testing Center.

**Lecture Quizzes:** Quizzes are on eCampus and count toward your grade. Quizzes are mostly fill-in the blank. You may take these on your personal computer. Do NOT try taking them on your phone.

**Laboratory**

Attendance is **MANDATORY** and each exercise requires FULL laboratory participation for full credit. Students are to bring a printed copy of the student work pages to lab.

- Instructions are given at the beginning of each lab and will not be repeated.
- Gloves and goggles are **required** for all dissection labs and labs using chemicals. **Please purchase these items before class** (see Course Calendar). You will not be able to participate in the lab if you do not have these materials.
- Hazardous materials are used in the laboratory area. Safety data sheets (MSDS), required by the Occupational Safety and Health Administration (OSHA), are available for all students to observe upon request.
- Study Guides for Lab Exams are posted on eCampus.
- Children are not allowed in the laboratory or unsupervised on campus at any time.
- You are not allowed to eat, drink, or apply make up in the lab.
- Please wear only closed toe shoes in the lab.
- Please use the restroom before lab. Be especially mindful of this on lab practical days. You will not be able to leave the room once the practical has started.

**Laboratory Exams**

Lab exams must be taken during the scheduled lab exam time. (see course calendar). All lab exams are given in the laboratory classroom.

**Evaluation Procedures**

**Lecture Exams = 60% of the Final Grade**
- 3 Lecture Exams worth 100 points each. Scantron 882E for Unit 3 Lecture Exam.
Laboratory Practical Exams = 25% of the final grade
- 3 laboratory practical exams worth 100 points each. Scantron: 882 E

Assignments = 10%—from Assignments posted on eCampus under the Assignments tab.
- Lab Quizzes and Discussion Board = 5%—quizzes are posted on eCampus under the Quiz tab. Quizzes may not be taken past the deadline (do not wait until the last minute). You have two attempts on the quizzes and will receive the higher of the two scores.
- You are expected to turn in assignments on time, to participate in class and to be prepared for class and/or lab. Having too many absences will impact your grade.

Grading Scale:  A = 90 – 100  B = 80 – 89  C = 70 - 79  D = 60 – 69  F < 59

Grade Posting
Individual test grades and assignment grades are posted on eCampus by e + your student ID.
Students are encouraged to use the resources available on eCampus regularly. Your login for eCampus is the same as it is for eConnect. If you are new to eConnect, you will need to set up your account before you are able to log in. Go to econnect.dcccd.edu. You will need to know your student/employee ID number which is a seven-digit number with an “e” placed before the number (example: e1234567). Announcements will be posted on eCampus. A variety of materials will be available to help you learn the required material.
Go to the website: http://ecampus.dcccd.edu.

Final Grade Posting: Final grades will be on posted on eConnect.

Course Content and Exam Topic Summary

Lecture Exam Format: True and False, Multiple Choice and Matching

Unit #1 Lecture Exam -
- Textbook Chapters 18-20, and 23;
  - Review Carbohydrates, Protein, Lipids, Vitamins and Minerals

Laboratory Exam #1 – Purchase One #882E Scantron
  - Topics: Digestive System Models, Enzymes Lab, Heart Models, Circulatory Diagrams, Cardiac Tissue, Blood Pressure, Blood Typing Lab, Artery vs. Vein Anatomy, Human Artery and Vein Identification

Unit #2 Lecture Exam -
- Textbook Chapters 21, 22, 25 and 26
  - Topics: Lymphatic System, Respiratory System and Urinary System

Laboratory Exam #2—Purchase One #882E Scantron
  - Topics: Lymphatic Diagrams and Models, Respiratory System Models, Bell Jar Experiment, Spirometry, Urinary Diagrams and Models, Urinalysis Lab

Unit #3 Lecture Exam - Purchase One #882E Scantron;
- Textbook Chapters 17, 27 and 28
  - Topics: Endocrine System, Reproductive System and Embryology

Laboratory Exam #3 - Purchase One #882E Scantron.
- Topics: Endocrine Slides—Hypophysis, Thyroid, Parathyroid, Pancreas, Adrenal, Ovaries, Testes; Reproductive Diagrams and Definitions, Reproductive Models (Male, Female, Cell to Embryo, Meiosis), Embryology, and Fetal Circulation.

Instructor Attendance Policy
Students are expected to attend all classes. Students have the responsibility to attend class and to consult with the instructor when an absence occurs. If for some reason you must leave class early, you should inform the instructor prior to the start of class of your reason for leaving early. On-time attendance is vital to your success in this course. Plan to arrive early. On-time attendance is taken at the beginning of class.
Student Expectations
Students will develop personal responsibility in the areas of on-time attendance, completing all assignments on time, studying 12-15 hours per week outside of class, and bringing the textbook and lab manual to class. Students should also be prepared to engage by asking questions and discussing the material being covered in groups and with the instructor.

Late Work Policy
- Students must contact the instructor if they will miss class or the due date for an assignment within 24 hours.
- Documentation of an excused absence is required. Arrangements must be made with the instructor to make-up a quiz, exam, or assignment.
- Work is due at the beginning of class on the due date! Unexcused late work will not be accepted.

Makeup Exam Policy
- Students must contact the instructor if they will miss an exam within 24 hours of the due date.
- Documentation of an excused absence is required.
- Arrangements must be made with the instructor to make-up an exam.
- Points may be deducted at the instructor’s discretion.

You will not be eligible for extra credit/bonuses on tests or curves if have more than two unexcused tardies or absences.

College Sponsored Events
Please contact your instructor if you will miss class for a college sponsored event.

Electronic Devices
Students are expected to silence all cell phones and other electronic devices during class time and only use them for class purposes. Students may not text or receive texts during class. Students may not use headphones during class. If you need to step out to answer an important phone call, please do so without being disruptive.

Academic Dishonesty
Students caught cheating or plagiarizing an assignment will receive a “0” on the assignment or test and be subject to an “F” in the course.

Disclaimer
The instructor reserves the right to make changes to the course calendar and syllabus within reason if needed. Any changes will be announced in class and posted on eCampus.

Financial Aid
Students must begin attendance in all classes of enrollment. NO EXCEPTIONS. Financial Aid will not be granted to students who have been certified as not attending, by the certification date. For this lecture course, your physical participation in class, on or before the certification date will allow you to receive credit for FA purposes. For certification dates, check with the division or FAO for further information. Students who are not certified as beginning class, are responsible for any payments due as a result of non-certification, to include the dropping of courses.

Institutional Policies
Please visit http://www.mountainviewcollege.edu/ for a complete list of institutional policies (Stop Before You Drop; Withdrawal Policy; Repeating a Course; Financial Aid; Academic Honesty; Americans with Disabilities Act Statement; Religious Holidays; and Campus Emergency Operation Plan and Contingency Plan.)

Institutional Policies relating to this course can be accessed from the following link:
www.mountainviewcollege.edu/syllabipolicies

Title IX - Harassment, Discrimination and Sexual Misconduct
<table>
<thead>
<tr>
<th>Day</th>
<th>Monday</th>
<th>Wednesday</th>
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<tbody>
<tr>
<td>1/20</td>
<td><strong>Martin Luther King Jr. Day – NO CLASS</strong></td>
<td><strong>Orientation: Digestive System—Ch. 24; Review carbohydrates, proteins, and lipids</strong></td>
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<td><strong>Quiz 1/Digestive System due 2/2 11:59 pm on eCampus</strong></td>
<td><strong>Lab: Lab safety video, MSDS Overview, Visible Body overview Digestive System Diagrams, print and complete student work at home, pp. 55-58</strong></td>
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<tr>
<td>1/27</td>
<td><em>Lecture: Digestive System—Ch. 23</em></td>
<td><strong>2/29 Lecture: Blood—Ch. 18</strong></td>
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<td><em>Lab: Digestive Models and Diagrams- complete student work pages, pp. 59-63</em></td>
<td><strong>Lab: Circulatory Diagrams; Blood Cell Identification; Complete blood typing virtual activity and blood typing exercise, pp. 27-28; Complete Blood Cell ID and Blood Typing Bedside Card Interpretation, pp. 64-65</strong></td>
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<td><strong>Quiz 2/Blood and the Heart Due 2/9 11:59 pm on eCampus</strong></td>
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<tr>
<td>1/29</td>
<td><em>Lecture: The Heart—Ch. 19</em></td>
<td><strong>2/5 Lecture: Blood Vessels &amp; Circulation—Ch. 20</strong></td>
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<td><em>Lab: Heart Diagrams- Complete Heart Model diagrams, pp. 66-67: Cardiac Conduction System and Electrocardiogram, p. 68</em></td>
<td><strong>Lab: Dissection– Sheep Heart; Artery &amp; Vein Anatomy and Types of capillaries, p. 69; Blood Vessel Identification, pp. 70-77; Complete short answer questions 78-80</strong></td>
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<td><strong>Quiz 3/Blood Vessels and Disease Due 2/16 11:59 pm on eCampus</strong></td>
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<td>2/10</td>
<td><em>Lecture: Circulatory Diseases</em></td>
<td><strong>2/12 Lab: Unit 1 Lab Practical</strong></td>
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<td><em>Lab: Blood pressure exercise, p. 41-42; Review lab content</em></td>
<td><strong>Bring 882E Scantron/#2 pencil Notebooks Due</strong></td>
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<td><strong>Quiz 4/Lymphatic System Due 3/8 11:59 pm on eCampus</strong></td>
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<td>2/17</td>
<td><em>Lecture: Unit 1 Lecture Exam Deadline Monday, 2/17 in the Testing Center; Class will not meet tonight</em></td>
<td><strong>2/19 Lecture: Introduction to the Lymphatic System Ch. 21</strong></td>
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<td><em>Unit 1 Lecture Exam Retest due Saturday, 2/22 in Testing Center</em></td>
<td><strong>Lab: Lymphatic System Diagrams and Models; Complete pp. 42-45</strong></td>
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<td><strong>Quiz 5/Lymphatic System Due 2/23 11:59 pm on eCampus</strong></td>
<td><strong>Quiz 4/Lymphatic System Due 2/23 11:59 pm on eCampus</strong></td>
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<tr>
<td>2/24</td>
<td><em>Lecture: Lymphatic System—Ch. 21</em></td>
<td><strong>2/26 Lecture: Respiratory System—Ch. 22</strong></td>
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<td><em>Lab: Respiratory Diagrams; Complete pp. 46-48; Complete Bell Jar Activity, p. 25</em></td>
<td><strong>Lab: Respiratory Models; Complete pp. 49-53</strong></td>
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<td>3/2</td>
<td><em>Lecture: Respiratory System—Ch. 22</em></td>
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<td><em>Lab: Complete spirometry activity, p. 26</em></td>
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<td>3/9</td>
<td><em>Lecture: Complete Urinary System—Ch. 25 &amp; 26</em></td>
<td><strong>3/11 Lab: Unit 2 Lab Exam</strong></td>
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<td><em>Lab: Simulated Urinalysis Lab Activity; Print out and bring to lab. Review lab material.</em>*</td>
<td><strong>Lecture: Unit II Lecture Exam deadline Monday, 3/23 in the Testing Center; it is available now and suggested that you take it before Spring Break</strong></td>
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<td><strong>3/11 SPRING BREAK (16-20)</strong></td>
<td><strong>3/25 Lecture: Endocrine Physiology Hypophysis (pituitary) —Ch. 17</strong></td>
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<td><strong>Unit 2 Lecture Exam Retest Due Saturday, 3/28 in the Testing Center</strong></td>
<td><strong>Lab: View endocrine Slides—Hypophysis; View Endocrine Model; Complete p. 66-68; Complete the hypothalamus, infundibulum, and pituitary gland, p. 69, View Hypophysis slide at workbench, complete hypophysis portion of the Endocrine summary table on pp. 71-72</strong></td>
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<td><strong>Quiz 6/Endocrine Due 3/29 11:59 pm on eCampus</strong></td>
<td><strong>Quiz 5/Respiratory and Urinary System Due 3/8 11:59 pm on eCampus</strong></td>
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<td>Date</td>
<td>Lecture/Reading</td>
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<td>3/30</td>
<td>Lecture: Thyroid &amp; Parathyroid — Ch. 17, Lab: Review hypophysis; Thyroid &amp; Parathyroid; Complete thyroid histology, p. 69; View thyroid slide; Complete thyroid and parathyroid portion of the Endocrine summary table on pp. 71-72</td>
<td>Quiz 7/Thyroid/Parathyroid Due 4/5 11:59 pm on eCampus</td>
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<tr>
<td>4/1</td>
<td>Lecture: Pancreas—Ch. 17 Lab: View Endocrine Slides- Pancreas complete pancreas histology, p. 70; complete pancreas portion of the Endocrine summary table on pp. 71-72</td>
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<tr>
<td>4/6</td>
<td>Lecture: Adrenal Cortex—Ch. 17 Lab: View endocrine slides—Adrenal Cortex; Complete adrenal gland histology on p. 70; Complete adrenal gland portion of the Endocrine summary table on pp. 71-72; complete pp. 72-75</td>
<td>Quiz 8/Pancreas/Adrenal Due 4/12 11:59 pm on eCampus</td>
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<tr>
<td>4/8</td>
<td>Lecture: Adrenal Medulla—Ch. 17 Lab: View endocrine slides—Adrenal Medulla; Complete adrenal gland histology on p. 70; Complete adrenal gland portion of the Endocrine summary table on pp. 71-72; complete pp. 72-75</td>
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<tr>
<td>4/13</td>
<td>Lecture: Testes—Ch. 27 Lab: View endocrine slides- Testes &amp; Sperm; complete testes section of the endocrine summary table on pp. 71-72</td>
<td>Quiz 9/Testes/Male Reproductive System Due 4/19 11:59 pm on eCampus</td>
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<tr>
<td>4/15</td>
<td>Lecture: Reproductive System—Male—Ch. 27 Lab: Reproductive Models &amp; Diagrams; Complete pp. 76-77</td>
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<tr>
<td>4/20</td>
<td>Lecture: Ovaries—Ch. 27 Lab: Endocrine Slides—Ovary; Complete Mature Graafian Follicle, p. 79</td>
<td>Quiz 10/Ovary and Female Reproductive Due 4/26 11:59 pm on eCampus</td>
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<tr>
<td>4/22</td>
<td>Lecture: Reproductive System-Female- Ch. 28 Lab: Reproductive Models &amp; Diagrams; Complete pp. 78-80</td>
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<td>4/27</td>
<td>Lecture: Fertilization &amp; Embryology—Ch. 28 Lab: Review all models and diagrams; Complete pp. 81</td>
<td>Quiz 11/Fertilization &amp; Embryology Due 4/29 11:59 pm on eCampus</td>
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<tr>
<td>4/29</td>
<td>Lecture: Complete Fertilization &amp; Embryology—Ch. 28 Lab: Review all Unit III slides, models and diagrams; Complete pp. 82-84</td>
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<tr>
<td>5/4</td>
<td>Lab: Review all Unit III slides, models and diagrams; Complete pp. 82-84 Submit Lab Notebook Today</td>
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<td>5/6</td>
<td>Lab: UNIT 3 Lab Exam Bring 882E Scantron/#2 pencil</td>
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<td>5/11</td>
<td>Lecture: Unit 3 Lecture Exam—Endocrine, Reproductive and Embryology in Class; Bring an 882E Scantron CH—17, 27 &amp; 28</td>
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<tr>
<td>5/13</td>
<td>Lecture: Unit 3 Lecture Exam Retest Due Today 9:00 pm in the Testing Center</td>
<td>Semester Ends Tomorrow</td>
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