Spring 2012
Section 21842 and section 21843
Thursdays 11.15-1.45 pm DSCS 142

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Homepage: http://www.hccfl.edu/facultyinfo/pgermroth/

e-mail etiquette: You will identify yourself with course and section number. You will address me properly either as Professor Germroth or Dr. Germroth. You will use standard English. Violation of the above may result in a no-reply.

e-mail response time: I shall respond as soon as I can which may be 24-48 hours after receipt of your mail. I will NOT respond at night, on weekends, holidays, or days on which the college is closed.

Office hours
M 9-11am; T 9-9.30am + 11am-1.30 pm; W 9-11 am; TH: 9-9.30 am + 1.45-2.15pm

Online office in Skype: T 1.30-2 pm; Th 6.30-8 pm
For online office hours we will use Skype. A tutorial about how to set up a free Skype account and how to use Skype during office hours is available at the MyHCC content of this course. My skypename for our course is “germrothoffice”

This course is located in the MyHCC learning management system. It will be open online on the first day of the term – January 9th, 2012.

Find our course at: https://hccfl.blackboard.com
Log in: your ID is the first part of your Hawkmail address (example: if your hawkmail was jdoe2@hawkmail.hccfl.edu, then your ID is jdoe2.
Password: First letter of your first name Uppercase, first letter of your last name lowercase, then your student ID number (example Jd123456)
**This is a hybrid-lab.** This means that a significant part of the work is done online. You should have a computer with broadband Internet access or you need to reserve time to work in a computer lab. If you cannot work with a computer, this course format is not for you! If you aren’t organized and diligent, this course format is not for you.

### Class Schedule:

*Note: the two sections covered in this syllabus do meet on different weeks*

This is a tentative schedule. It may change.

<table>
<thead>
<tr>
<th>#</th>
<th>Date for in class meetings</th>
<th>In-class activities DSCS 142</th>
<th>Online-tasks: Due at the meeting at which they are listed!</th>
<th>Comments and Quizzes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>21842: 1-12 21843: 1-19</td>
<td>Orientation</td>
<td>Bring the lab-manual!</td>
<td></td>
</tr>
</tbody>
</table>
| 2  | 21842: 1-26 21843: 2-02  | Hemoglobin, Hematocrit; Microscopy: Cells of the Immune system | Task1: Blood cells  
   Task2: PhysioEx 9: Exercise 11 only  
   Hemoglobin and Hematocrit | In-Class: finger-prick, Review microscopy before class if necessary |
| 3  | 21842: 2-09 21843: 2-16  | Cardiac Physiology (ECG)  
   Heart Dissection | Task3: Watch streaming video (Heart)  
   Task4: PhysioEx 9: Exercise 6: Cardiac Physiology Temperature; Modifiers of the Heart rate | No metal on thorax, remove chest hair! |
| 4  | 21842: 2-23 21843: 3-01  | Urinalysis, Microscopy: Urine Sediment Analysis | Task5: Watch: Kidney dissection (Video) | In class urine sample  
   Quiz 2 (Blood Sugar, Heart Anatomy, ECG Cardiac Physiology) |
| 5  | 21842: 3-08 21843: 3-15  | Fluid&Electrolyte balance  
   Blood sugar test  
   Vital signs; Respiratory Anatomy | Task6: PhysioEx 9: Exercise 4: only Blood Sugar/Diabetes  
   Task7: PhysioEx 9: Exercise 7: Comparative Spirometry  
   Task8: Watch streaming video (Lungs) | In-Class: finger-prick  
   In class sampling of dif.fluids/volumes, Urine sample.  
   Quiz 3 (Kidney anatomy/Urinalysis, Urine sediments) |
| 6  | 459: 4-05 460: 3-29      | Blood typing  
   Blood type genetics  
   Body-Fat Analysis | Task9: PhysioEx 9: Exercise 11 Blood Typing | In class finger-prick  
   Quiz 4. (Lung anatomy/physiology, Fluid & electrolyte balance, blood sugar) |
|    |                           | To be done at home until April 19, 2011 | **Task10. PhysioEx 9:** Exercise 8 Digestive Enzymes (all)  
   **Task11.** Watch video  
   Sea Urchin IVF (Video),  
   **Task 12.** Watch video Human Reproduction | **Quiz 5-online**  
   (Blood types, Body fat, Digestive enzymes, human reproduction) |
Course Description
The lab complements the A&P II lecture. HCC-Dale Mabry offers a clinically oriented lab that emphasizes physiological and functional analysis and investigation. You will work in small groups and analyze real body fluids (i.e. blood and urine). You will be asked to think about and evaluate lab results.

Remark: This course together with BSC 1085 provides the foundation for an understanding of the human body. Most students taking this course plan a career in health care. To anyone planning to work in the health field this class will be the background to a deeper understanding about yourself and your patients. A patient’s life or health may depend on whether you know what you are doing. Additionally, this class will provide the necessary background for other professional courses that rely on anatomy and physiology. Therefore, learn as much as you can in this class. You will benefit from it. Also, I will keep a high standard for this class, considering the above.

Objectives: At the end of this course, the student will be able to:
1. recognize and describe functions of blood components.
2. identify anatomical features of the heart.
3. evaluate physiological activity of the cardiovascular system, such as blood pressure, pulse rate and ECG.
4. measure and evaluate urine characteristics.
5. analyze enzyme activity.
6. relate clinical measurements to determination of human physiological activity.
7. demonstrate proficient use of the compound light microscope.

Pre-Requirements for this course:
College level reading and writing, successfully completed BSC 1085 (A&P I) and current enrollment in or completion of BSC 1086 (the lecture part of this course).

Required Material:

1. Anatomy & Physiology Lab Manual, authored by Bohm, Manis and Snyder. Fourth edition. Buy at HCC Bookstore! If you took A&P 1 lab at the Dale Mabry Campus in 2010 or 2011, you already should have this manual.

2. PhysioEx 9.0 P. Zao, T. Stabler, G. Peterson, L. Smith; Pearson, Benjamin-Cummings
   Access via Mastering A&P (registration key comes with a new Marieb textbook which is the recommended textbook for the lecture).

Your work and responsibilities:

1. We will physically meet six times (Orientation and five labs). The syllabus shows you the topics of the labs. You will prepare the labs using the lab
2. Meetings 3, 4, 5, 6 – you will take a quiz in the lab. The quiz topics are listed in the syllabus in the last column.

3. You must also complete several tasks online. Six of the tasks are assignments requiring a submission. Note that all assignment tasks have deadlines! They are color-coded red in the MyHCC tasks folder.

4. Your online workload is outlined in the respective column of the syllabus. Since we meet every other week, you should use the week in between meetings to complete the online work associated with that time period. You will also find the precise assignment content and the links to the relevant websites and streaming videos in our course-space on Blackboard (MyHCC) in the folder named “Tasks”.

5. **Deadlines**: Deadline for the online quiz (Quiz 5) is April 19, 2012 at 11pm. Anything you try to submit after a deadline will not be counted. Deadline for the tasks is prior to the beginning of a lab – 11.15 a.m. on your scheduled lab days.

**Grades:**

Your factual knowledge, your understanding of procedure, and the scope of your science background of the topics is assessed in the quizzes and the assessments.

- There will be four short in-class quizzes and one online quiz. Each quiz counts a maximum of 30 points; thus you can acquire $5 \times 30 = 150$ points.
- Additionally, you will complete 6 assessments that relate to six of the online tasks. Each assessment total is a maximum of 20 points, yielding $6 \times 20 = 120$ points maximum.
- **Grade determination is based on percent out of 270 points.** Note that being late in lab or leaving early may result in a missed quiz or in missing important lab related information. Each in-class quiz will last a maximum of 25 minutes; quiz 5 (online) has a 30-minute limit.
- **If you miss a quiz**, it will be counted with 90% of the average of your other 4 in-class quizzes. If you miss more than one quiz, each of those will count “0” points. If you miss an assignment, “0” points will be credited.
- The quizzes and the assignments consist of multiple choice, fill-in and short answer tasks.
- **Spelling counts!** (Countless patients have suffered harm from health personal misspelling or mixing up terms, units of measure etc...)
- **There is no extra bonus work beyond what is described in this syllabus.** You are expected to master the material assigned in this outline. Some quizzes may have bonuses build in! (Quiz bonus questions may refer to the lab topic of the day you take the quiz) It is in any case essential to come to each lab prepared!
- Bring a green scantron sheet for each quiz.
• **Grades and quiz results will be posted on MyHCC.**

• **Letter grades** are based on the calculated total percentage of achieved points and are assigned in the following manner:
  
  \[
  \begin{align*}
  \text{A} &= > 90\% \quad (>243 \text{ points}) \\
  \text{B} &= 80-89.5\%; (216 -242 \text{ points}) \\
  \text{C} &= 70-79.5\%; (215 -189 \text{ points}) \\
  \text{D} &= 60-69.5\%; (188 -162 \text{ points}) \\
  \text{F} &= \text{less than} 60\% \ (< 162 \text{ points})
  \end{align*}
  \]

**Lab-Safety:** At all times you are asked to follow the instructions given by the instructor. Follow the safety rules as handed out and discussed in the first meeting. If any procedure is unclear to you, ask the instructor before you proceed. Our A&P II lab involves the analysis of your own body fluids (blood and urine) and cells. Therefore every student must adhere strictly to lab safety rules and common precautions to prevent exposure to someone else’s fluids or cells. Behavior that endangers the safety of others or self will not be tolerated and will lead to an immediate exclusion from the lab. Note that **you must inform the instructor immediately if there is any damage to the equipment or injury to you. Absolutely no food or drinks in the lab, including chewing-gum.**

**Academic Honesty policy:** I expect honesty – academic and otherwise. If you have a problem, talk to me. I will try to help. I will not tolerate plagiarism or other types of cheating. If I catch you in such a case you will fail the class and additional disciplinary action will be initiated.

**Plagiarism:** Any submission that is not the genuine product of the student submitting it (for example a plagiarized fill-in test answer or comment) will receive a failing grade and potentially a failing grade for the whole course as well as further disciplinary action via the office of the Dean of students.

Note: any free answers or paper content must be your thoughts in your words. If you borrow (=closely paraphrase a source), you need a citation. Borrowing test answers is not permitted.

**Attendance:** Attendance in the scheduled laboratory meetings is essential and mandatory. In adaptation to our departmental policy, **more than one missed in-class lab – will normally result in an “F” grade for the course.**

Arrivals more than 15 minutes late or departures before the work is completely finished and the lab space has been cleaned may be recorded as an absence.

**Help or technical issues:**

-- Students who require assistance with the use of myHCC, the Learning Management System used at HCC, please contact the HCC Help Desk at **1-877-736-2575** or go to [http://hcclive.hccfl.edu](http://hcclive.hccfl.edu). Include your full name, the course you are enrolled in and a detailed description of the problem you encountered.-- Questions regarding Mastering A&P and PhysioEx need to be addressed by Pearson (the publisher). The respective websites have help numbers and links listed.
-- If you have questions about the course assignments or other questions regarding the course content you need to contact me.

-- SmarThinking: SmarThinking is a 24/7 online tutoring service to students at Hillsborough Community College providing online tutoring and increased access to quality learning tools. Students at the College only have a limited amount of time afforded to them through this service, so please use it judiciously. To login to SmarThinking go to: Smarthinking.hccfl.edu. You will use your HawkNet user id and password to access the tutoring.

**Recording and/or Posting of Lecture Materials**

Students shall not, without express authorization by the instructor, make or receive any recording, including but not limited to audio and video recordings, of any class, co-curricular meeting, organizational meeting, or meeting with the instructor. In addition, students do not have the instructor’s permission to post class lectures/course materials on the web.

**Privacy Statement as required by the IT-department:**

Students using online formats for study at HCC do so in a respectful, protected environment. However, this learning environment may at times be viewed by faculty (both current and those learning to become online facilitators), Distance Learning staff, and other experts, who are working with us to maintain the highest quality online courses. Please understand that this is not a secure, private environment.

**Miscellaneous:**

- Do not count on being finished early! Most labs are estimated to last the whole allotted lab time.
- You are expected to leave the lab space and equipment as clean as possible.
- Cell phone ringers must be turned off during class. If you expect an urgent and important call set your phone on silent alarm. Ringing phones pose a danger in lab – especially when students are drawing blood for example or handle chemicals.
- You are responsible for taking notice of all announcements and changes, especially if you miss a class. Frequently check e-mail.
- You are also responsible for adhering to college policy and rules. Refer to the student handbook if in doubt.

**Students with disabilities:**

Any student whose disabilities fall within American Disabilities Act (ADA) must inform the instructor at the beginning of the term of any special needs or equipment necessary to accomplish the requirements for this course. To arrange for special accommodations for individuals with disabilities contact the Office of Services for Students with Disabilities. The office is located in the Student Services Building Room 204 or call 813-259-6035.