

2015SP HUMAN PHYSIOLOGY LABORATORY (BIOL 2425)

1 credit hr. SCI RM 117

Physiology laboratory **does** meet the first week

TIME	MO	TUESDAY	WEDNESDAY	TH	FRIDAY
8-8:50 am			Section 01 20698		Section 02 20697
9-9:50 am			8-9:50 am DODGE		8-9:50 am MORTENSEN
10-10:50 am		Section 03 20699	Section 04 20700		Section 05 20701
11-11:50 am		10-11:50 am SNOW	10-11:50 am DODGE		10-11:50 am MORTENSEN
12-12:50 pm		Section 06 23490	Section 07 23759		
1-1:50 pm		12-1:50 pm SNOW	12-1:50 pm DODGE		
2-2:50 pm		Section 08 27306			
3-3:50 pm		2-3:50 pm SNOW			
4-4:50 pm		Section 50 20704			
5-5:50 pm		4-5:50 pm PALACIOS			

SECTION, DAY, TIME	CRN	INSTRUCTOR	CONTACT INFO	OFFICE HOURS
01 W 8-9:50 am	20698	N. Dodge	Sci 108 ndodge@dixie.edu	T 9:30-10:30 am but only if students confirm meeting
02 F 8-9:50 am	20697	A. Mortensen	Sci 108 amortensen@dixie.edu	T & W 8:30-9:30 am but only if students confirm meeting
FIRST LAB of WEEK 03 T 10-11:50 am	20699	S. Snow-Furley	Sci 108 s_snow@dixie.edu	T 4-5:00 pm but only if students confirm meeting
04 W 8-9:50 am	20700	N. Dodge	Sci 108 ndodge@dixie.edu	T 9:30-10:30 am but only if students confirm meeting
LAST LAB of WEEK 05 F 10-11:50 am	20701	A. Mortensen	Sci 108 amortensen@dixie.edu	T & W 8:30-9:30 am but only if students confirm meeting
06 T noon-1:50 pm	23490	S. Snow-Furley	Sci 108 s_snow@dixie.edu	T 4-5:00 pm but only if students confirm meeting
07 W noon-1:50 pm	23759	N. Dodge	Sci 108 ndodge@dixie.edu	T 9:30-10:30 am but only if students confirm meeting
08 T 2-3:50 pm	27306	S. Snow-Furley	Sci 108 s_snow@dixie.edu	T 4-5:00 pm but only if students confirm meeting
50 T 4-5:50 pm	20704	A. Palacios	Sci 108 palacios@dixie.edu	T 3-4:00pm but only if students confirm meeting

If you miss your regularly scheduled laboratory section:

- 1. Attend a different laboratory section *during the same week*. However, you must have an *email response* from the instructor for the different section you wish to attend to ensure that space is available. If you simply show up without an email response and space is not available, you will not be allowed to attend the different section. **If this happens, keep trying to attend a different laboratory section during the same week and keep emailing the other instructors!****

Instructor will DEDUCT 5pts from score if the reason for attending a different section in the same week is not a “reasonable excuse”, as determined solely by the instructor. The reason for this policy is that students abused this privilege in past semesters and scheduling was impossible; students who don't attend their regularly scheduled sections simply because of convenience or preference will be penalized.

- 2. If for some reason you are unable to attend a different section that same week, keep contacting your regular instructor until you discuss with them the reasons for the absence and reasons why you did not attend a different section. More than likely, you will not be allowed a make-up and will lose all points for the missed exercise.**

The greater the likelihood that you might be allowed to do a make-up for a missed exercise depends upon:

- 1. faster you notify your regular instructor**
- 2. better your reason for an absence and you have written documentation for that absence**
- 3. more effort you make to attend a different section during the same week**

Description: This laboratory course is to be taken concurrently with BIOL 2420. This course is for students in the health science fields, including nursing, pre-medical, pre-dental, physical therapy and many others. It is also recommended for biology majors. The course examines the way in which body functions are carried out, utilizing a systems approach; the course covers topics such as blood chemistry, nerve impulse transmission, kidney function, muscle contraction, and heart function. Successful completion of this intensive course gives students pursuing biology-related careers sufficient familiarity with the details of biological functions to enable them to understand disease processes, treatment procedures, research pursuits, and evolutionary consequences of various aspects of physiology.

See Assessments for Biology at: http://dixie.edu/biology/course_assessments.php

General Life Science Course Objectives: after successful completion of this course, the student will through testing, written or oral reports fulfill the bolded outcomes:

- Goal 1: Demonstrate breadth of discipline-specific knowledge
 - Outcome 1: Students will describe and explain fundamental topics in five principal perspectives of biology:
 1. The chemical and molecular machinations operating within all biological processes
 2. The centrality of genetic systems' governance of life's actions from the cellular to the phyletic
 3. **The coordinated regulation of integrated cellular systems and their effect on the physiological functioning of organisms**
 4. The dynamic interaction of living systems with each other and their environments
 5. The transforming role of evolution in changing life forms and how evolution explains both the unity and diversity of life
- Goal 2: Demonstrate the capacity to think independently and critically
 - **Outcome 2: Students will employ scientific methods to acquire, analyze and apply knowledge of biological phenomena.**
 - Outcome 3: Students will evaluate scientific ideas and information while maintaining receptivity to potential alternative predications.
- Goal 3: Effectively convey scientific literacy through various mediums of communication
 - Outcome 4: Reading Comprehension: Students will analyze and critique scientific literature: identifying hypotheses, critiquing methods, interpreting data and results, and articulating the context of discussions.
 - Outcome 5: Written Communication: Students will produce well-written reports and/or research papers covering topics in biology. These papers will be presented in the accepted formats of scientific research articles.
 - Outcome 6: Oral Presentation: Students will publicly present scientific information covering specific topics in the biological sciences. Presentations will adequately communicate data and information in a clear and logical format.
 1. explain and apply major concepts of a view of life, the cell, and the genetic basis of life,
 2. demonstrate knowledge of the process of science including asking testable questions, using inductive and deductive reasoning in forming hypotheses and in making reliable predictions,
 3. explain the objective of science and research including distinguishing among the natural sciences, liberal arts (humanities and fine arts), social and behavioral sciences and pseudo-science,
 4. **compute ratios, proportions, percentages, decimals, fractions, frequencies and elementary probabilities.**

Specific Human Physiology Course Objectives: this course explores how the human body functions and will prepare the student for additional life science/ health science coursework. After successful completion of course, the student will through testing, written or oral reports:

- Compute ratios, proportions, percentages, decimals, fractions, frequencies and elementary probabilities.
- Understand the overall process of the major body systems: integument, skeletal, muscular, nervous, endocrine, cardiovascular, lymphatic, respiratory, digestive, reproductive and urinary.
- Appreciate the level of coordination between systems, the interplay of factors which support homeostasis.
- Greatly build their biologic and medical vocabulary.
- Apply the specific factual knowledge gained in the course to clinical cases

Corequisite/Concurrent enrollment in BIOL 2420 Human Physiology is required: If students do not take the lab course, the lecture course grade will not be recorded on the transcript (except if a student has successfully passed the Human Physiology lecture portion of the course, and is simply repeating the laboratory portion).

Prerequisite: Successful completion of General Biology Laboratory (BIOL 1015) or Principles of Biology I Laboratory (BIOL 1615), or equivalent lab course is **HIGHLY recommended**.

Lab fee required: \$65.00

Optional reference: None

Required Texts: *Human Physiology*, by Lauralee Sherwood (8th Ed). ISBN: 13: 978-1-111-57743-8

STUDENTS MUST BRING TEXT TO EACH LABORATORY PERIOD

All announcements and other **important class business will occur at the Canvas site.** If you do not know your username or password, see:

http://new.dixie.edu/helpdesk/usernames_and_passwords.php

A copy of the syllabus will be posted under “Files” on **Canvas** and if needed, students may download another copy. (NOTICE...will not be under the syllabus portion of Canvas).

All laboratory exercises are posted under “Files” on **Canvas** . **Students must copy off each scheduled exercise in handout form and bring to the laboratory period.** Exercises are derived from the *Human Physiology Laboratory Manual Biology 2424*, authored by Curt Walker and edited by Patt Allen in Spring 2014.

Library, Computer Lab, Writing Center, Testing Center, and Tutoring Center : Library – there is no library component.

Computer Lab – there is no computer lab component.

Writing Center - there is no writing center component.

Reasonable Accommodation: If you suspect or are aware that you have a disability that may affect your success in the course you are strongly encouraged to contact the **Disability Resource Center (DRC)** located at the North Plaza Building (phone (435) 652-7516). The disability will be evaluated and eligible students will receive assistance in obtaining reasonable accommodations. Students should contact the DRC **within the first two weeks of the beginning of classes** for eligibility determination. Proper documentation of impairment is required in order to receive services. Call to schedule an appointment for further information regarding the process to receive accommodations. The DRC Coordinator determines eligibility for and authorizes the provision of services. A link is at: <http://dixie.edu/drcenter/>

Dixie State University Policies and Statements can be linked from the website for the **Spring 2015** course schedule at: <http://dixie.edu/reg/?page=spring2015>

Academic dishonesty/academic integrity policy 34.1 Academic dishonesty in any form will not be tolerated at Dixie State University, including but not limited to plagiarism on written assignments, submitting other person's work as one's own, and cheating on exams or quizzes. Teachers at Dixie State University may discipline students proven guilty of academic dishonesty by:

- 34.1.1 Giving a **failing grade on the specific assignment** where dishonesty occurred,
- 34.1.2 **Failing the student in the entire course,**
- 34.1.3 Immediately dismissing and **removing the student from the course,** and/or
- 34.1.4 Referring the student to Student Affairs Committee which may **reprimand, place on probation, suspend, and/or expel the student.**

Disruptive Behavior policy 34.2: Teachers at Dixie State University have the right to manage the classroom environment to ensure a good learning climate. Toward this end, teachers (or University security) **may dismiss and remove disruptive students from individual class** activities. If a student's behavior continues to disrupt class activities, the teacher may dismiss and **cause the removal of disruptive students from their course.**

- **Text or instant messaging, gaming,** and any other extraneous use of electronic devices during lecture is annoying to the instructor, and equally damaging to you as a student. Peer reviewed investigations conclude that less information is absorbed and retained when these devices are in use. If your instructor observes you using a device, **10 points will be deducted from your course grade for every time.**
- **Cell phones must not be audible** during class. If it tings, beeps, rings, chirps, etc., **10 points will be deducted from your course grade for every time.**

Student Appeals policy 34.3: Students who believe themselves wrongfully disciplined may appeal those disciplinary actions through the standard grievance procedure. (Policy 5-35)

Tutoring Center: Students work on assignments independently while having the opportunity to have assistance when needed. Peer tutors are available during designated hours. Located in room 431 Holland Centennial Commons (email: tutoring@dixie.edu and phone (435) 879-4731). A link is at: <http://dixie.edu/tutoring/>

Communication All laboratory exercises are posted on **Canvas** under “files” and **students must print off the scheduled exercise and bring them to the laboratory period.** Notice on **page 11** of this syllabus that some weeks require a student to print off two different documents.

Periodically, announcements about changes in schedules and other **important class business will occur at the Canvas site.**

Students are required to frequently check their Dmail account. Important class and University information will be sent to the Dmail account, including DSC bills, financial aid/scholarship notices, notices of cancelled classes, reminders of important dates and deadlines, and other information critical to your success at DSC and in your courses. To access your Dmail account, visit go.dixie.edu/dmail. If you do not know your Dmail username or you have forgotten your PIN, visit go.dixie.edu/mydixie and follow the respective instructions.

Grading: Final grades will be based on these percentile ranges:

	B+ 87-89.99%	C+ 77-79.99%	D+ 67-69.99%
A 94-100%	B 84-86.99%	C 74-76.99%	D 64-66.99%
A- 90-93.99%	B- 80-83.99%	C- 70-73.99%	D- 60-63.99%
			F 59.9% or less

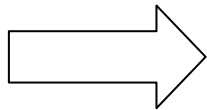
THERE WILL BE NO ROUNDING UP OF GRADES

First day attendance and review of syllabus.....	12 points
13 quizzes...30 points each (10 multiple choice questions X 3pts ea).....	390 points
13 prelab questions...16 points each.....	208 points
13 participation & post-lab questions...30 points each.....	390 points
	1000 total

If a student is absent for two or more exercises, they FAIL the entire laboratory course no matter how many points they have earned.

ORGANIZATION OF THE COURSE

1. **During the first week of the semester**, students purchase at the DSC bookstore 13 Scantron “Quizstrips”; these have fifteen questions on one side, and measure 3 X 6 inches (approx. **14 cents each**). **Scantrons should never be bent or folded.**

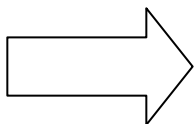


STUDENTS MUST BRING A PENCIL and SCANTRON QUIZZSTRIP TO EACH CLASS or the student will be unable to complete the quiz and earn those points

2. **Before coming to class**, students download from “files” on Canvas the scheduled **laboratory exercise and print off a copy** (it must be printed, it may not be simply downloaded onto a lap top computer, notepad, phone or other device).

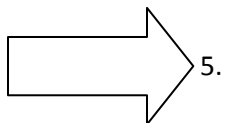
If students do not have a printed copy of the scheduled laboratory exercise, they should attend a different laboratory section per the instructions on p. 2 of this syllabus. (If unable to attend a different section, then **16 points** are deducted for not bringing the pre-lab questions for the scheduled laboratory exercise)

3. **Before coming to class**, students read the preparatory material in the laboratory exercise, and skim lightly through the assigned text pages (generally located in the second or third paragraph of the laboratory exercise)
4. **Before coming to class**, students answer **all** pre-laboratory questions on the printed copy of the laboratory exercise that they will bring to class.



○ **STUDENTS MUST BRING A PRINTED COPY** of the scheduled laboratory exercise with **ALL pre-laboratory questions COMPLETELY ANSWERED** or **16 points** are deducted. If any part of even one question is not completely answered, then all **16 points** are deducted.

- On the week of the nutrition exercise, **students must bring a printed copy of all nutritional data tables** or **16 points** will be deducted.



5. **During the first fifteen minutes**, the lab instructor will administer a quiz (**10 multiple choice questions**) over the laboratory exercise completed the previous week.

THERE WILL BE A QUIZ OVER THE SYLLABUS THE SECOND WEEK of LABORATORY

If the student misses any or all of the first fifteen minutes of class, they will not be given additional time and may not be able to complete the quiz.

(continued) **ORGANIZATION OF THE COURSE**

6. Following the quiz, the lab instructor will present (PowerPoint) material to go through answers for each of the pre-laboratory questions and to present an overview of class activities. These PowerPoint presentations may not be copied or photographed.
7. **Students work together in small groups**, following the procedures outlined in the printed off laboratory exercise. **Working together in a group, they then answer some post-laboratory questions, found at the end of each exercise.**

STUDENTS MUST PARTICIPATE IN COMPLETING THE ENTIRE LAB EXERCISE IN CLASS AND ANSWER ALL QUESTIONS AT END OF EXERCISE or **30 points** will be deducted. It is solely at the discretion of the instructor to award or to deduct these participation points.

8. Toward the end of the class period, the lab instructor will present (PowerPoint) material that illustrates important concepts from the exercise and go through answers for each of the post-laboratory questions. These PowerPoint presentations may not be copied or photographed.
9. Each laboratory exercise is finished when the **instructor decides to dismiss the class**. Generally, laboratory exercises are designed to run the entire time.

STUDENTS SHOULD NEVER PLAN on LEAVING EARLY! IF THEY DO SO, IT WILL BE COUNTED AS AN ABSENCE and the instructor **will deduct all points for that week** from the student's grade. **A student will lose the quiz score, the points for printing off and completing the pre-lab questions, as well as the points for participation and completing the post-lab questions.**

Strategy for Success:

- ✓ **Bring a pencil and one scantron quizzstrip to each laboratory period.**
- ✓ **Bring textbook to each laboratory period.**
- ✓ **Bring printed off laboratory exercise to each laboratory period.**
 - **Print off the correct, scheduled exercise!**
 - **Print off two separate documents when required!**
- ✓ **Read the preparatory pages in the laboratory exercise, skim the assigned text pages, and fully answer all pre-laboratory questions.**
- ✓ **Attend entire lab period each and every week!**

ATTENDANCE IS REQUIRED! Attendance is essential to the student's understanding of both laboratory and lecture topics.

- **If a student misses more than 10 minutes of a particular exercise**, it is considered an absence.

If a student is absent for **one** exercise, **all points for that particular exercise are deducted from the overall course score**. A student will lose 1) points for the quiz, 2) points for printing off the exercise & completing the pre-lab questions, and 3) points for participation & completing the post-lab questions.

- All instructors meet together to discuss each absence and decide if mitigating circumstances allow fewer points to be deducted...**no individual instructor may make this decision on their own.**
- If a student is absent for **two or more** exercises, **they FAIL the entire laboratory course no matter how many points they have earned.**
- If a student is ill, do not come to class.

If you miss your regularly scheduled laboratory section:

1. **Attend a different laboratory section** that is *scheduled to cover the missed exercise during the same week*. **However, you need to get an email response from the instructor for the different section that you wish to attend TO ENSURE THAT SPACE IS AVAILABLE.** If you simply show up without email consent and space is not available, you will not be allowed to attend the different section. **If this happens, keep trying to attend a different laboratory section during the same week.**

Instructor will DEDUCT 5pts from score if the reason for attending a different section in the same week is not a "reasonable excuse", as determined solely by the instructor

2. If for some reason you are unable to attend a different section that same week, **keep contacting your regular instructor until you are able to discuss with them the reasons for the absence and lack of attendance of a different section during the same week.** Realize that you are probably not going to be allowed a make-up!

(continued) ATTENDANCE

- A student who is absent from an exercise for **a reason that the instructor determines to be justifiable and unavoidable**, e.g. **hospitalization, military service, or University sanctioned event may be allowed** to attend a “make-up”. The **faster you notify your regular instructor** ; the **better your reason for an absence and if you have written documentation**, and the **quicker that you complete a make-up**, is taken into consideration as to how many, if any, points will be deducted.

- **All instructors meet together to decide if the absence is justifiable and unavoidable** so that the student should be allowed to complete a “make-up”, and if any points will be deducted...**no individual instructor may make this decision on their own.**

- **Policy for Absences Related to University Sanctioned Activity 3.5.3** Students who must miss class because of a University-sanctioned activity, such as an athletic event, club activity, class assignment, or other approved event, are responsible to assuring that their instructors have been notified and for completing any missed assignments.

23.5.3.1 Prior to the absence, students traveling with a club, team, or other group on a University-sanctioned activity must request leave from their instructors.

23.5.3.1.1 Students involved in a club event or an activity related to another course or program requirement must **provide written notification from the faculty or staff member supervising the activity that explains the nature of the activity**. This should include a list of eligible students and be provided in advance of the expected absence.

23.5.3.1.2 **By the second day of class, students with recurring absences must provide each instructor written notification from the appropriate department that includes a schedule of competition, the names of those students on specific teams likely to travel, and the dates and approximate times of departure and return to campus**. So that student participation in travel can be verified, the appropriate department will be responsible for informing individual faculty of changes to team rosters and travel schedules throughout the semester.

23.5.3.2 Students must arrange with the instructor to complete missed instruction and/or coursework.

23.5.3.2.1 **One week prior to an absence, the student will meet with the instructor to arrange a reasonable accommodation**, if feasible, to allow the students to complete any missed coursework and/or exams. **The instructor may require the student to submit work prior to the due date if the student will be absent**. It is the student's responsibility to complete the Student Absence Schedule with the instructor and abide by it.

This schedule may change and it is the responsibility of the student to attend each week, watch for announcements on Canvas, and to read emails sent from their instructor.

<u>Week</u>	<u>Exercise to be completed in laboratory</u>
JAN 13 -16	Roll and Syllabus QUIZ OVER SYLLABUS NEXT WEEK
JAN 20-23	Cell Transport Mechanisms and Permeability (of Membranes) <u>TWO DOCUMENTS NEED TO BE PRINTED OFF AND BROUGHT TO LAB</u> Cell Transport Mechanisms A (In this document are the pre-lab questions) Cell Transport Mechanisms B PhysioEx_hp01
JAN 27-30	Neurophysiology of Nerve Impulses (PhysioEx) <u>TWO DOCUMENTS NEED TO BE PRINTED OFF AND BROUGHT TO LAB</u> Neurophys A (In this document are the pre-lab questions) Neurophys B PhysioEx_hp01
FEB 2	LAST DAY TO DROP A CLASS WITHOUT RECEIVING A "W" GRADE
FEB 3-6	Electroencephalogram (EEG)
FEB 10-13	Sensory Adaptation
FEB 17-20	Vision
FEB 24-27	Autonomic Responses-Polygraph and Biofeedback
MAR 3-6	Muscle: Recruitment & Stimulation
MAR 6	LAST DAY TO DROP AN INDIVIDUAL COURSE
MAR 10-13	NO LAB SECTIONS THIS WEEK DUE TO SPRING BREAK HOLIDAY
MAR 17-20	Pulse, BP and EKG
MAR 24-27	Somatic Reflexes & Reaction Time
MAR 31-APR 3	Respiration and Spirometry
APR 7-10	Kidney: Urinalysis and Renal Physiology (PhysioEx) <u>TWO DOCUMENTS NEED TO BE PRINTED OFF AND BROUGHT TO LAB</u> Kidney (In this document are the pre-lab questions) Renal System PhysioEx_hp01
APR 10	LAST DAY FOR COMPLETE WITHDRAWAL FROM ALL COURSES
APR 14-17	Nutrition STUDENTS MUST BRING COMPLETED NUTRITION DATA TABLES
APR 21-24	Reproduction NO QUIZ ON THE REPRODUCTION EXERCISE
APR 27-MAY 8	NO LAB SECTIONS THESE WEEKS. THERE IS NO FINAL EXAM FOR THIS COURSE