

2015 SP HUMAN PHYSIOLOGY LECTURE (BIOL 2420) 3 credit hrs.

CRN #23758 section 01 (Aponte-Kline)	T, W, TH	9:00 am-9:50 am	Browning 101
CRN #24875 section 02 (Allen)	T & TH	11:00 am-12:15 pm	Science 113
CRN #20696 section 50 (Seare)	M & W	5:15 pm-6:30 pm	Science 115

Instructor: Glory Aponte-Kline, M.D. **Phone:** (435) 879-4322. **Email:** kline@dixie.edu
Office: Sci room 120. **Office hours:** W 10:00 am-12:00 pm & F 9:00-9:50 am **or by appointment**

Instructor: Patt Allen, D.V.M. **Phone:** (435) 652-7776. **Email:** allen_p@dixie.edu
Office: Sci room 134. **Office hours:** T & TH 1:15-2:15 pm & 4-5:00 pm **or by appointment**

Instructor: Jerry G. Seare, M.D. **Phone:** (435) 879-4410 Option 17 **Email:** jseare@dixie.edu
Office: Sci room 108. **Office hours:** M & W 4:30- 5:15pm **or by appointment**

Description: Human Physiology Lecture is for students in the health science fields, including nursing, pre-medical, pre-dental, physical therapy and many others. The course examines the way in which the body's 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. The course is taught in a series of lectures, supplemented with laboratory investigations of lecture topics. 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. **This course is demanding, requiring a great deal of reading, memorization and integration.** Many students will need to repeat the course in order to receive a grade competitive for admission to allied-health programs.

Prerequisite: Successful completion of BIOL 1010, BIOL 1610, or equivalent *is highly recommended* prior to enrolling

3 lecture hours per week IT IS ADVISED THAT STUDENTS REVIEW MATERIAL 2 hours each day in short 15 minute sessions using active learning techniques!
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Corequisite/Concurrent enrollment in BIOL 2425 Human Physiology Laboratory is required; if students don't take the lab course, the lecture course grade will not be recorded on the transcript (exception is if a student has successfully passed the Human Physiology Laboratory course, and is simply repeating the lecture portion).

HUMAN PHYSIOLOGY LABS MEET THE FIRST WEEK OF SCHOOL

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

Optional reference: none

Library, Computer Lab, Writing Center, Testing Center, and Tutoring Center

- Library – there is no library component but link at: <http://library.dixie.edu>
- Computer Lab – there is no computer lab component
- Writing Center - there is no writing center component but link at : http://new.dixie.edu/english/dsc_writing_center.php

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

General Life Science Course Objectives: after successful completion of **Human Physiology Lecture**, 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:**
 - a) **The chemical and molecular machinations operating within all biological processes**
 - b) **The centrality of genetic systems' governance of life's actions from the cellular to the phyletic**
 - c) **The coordinated regulation of integrated cellular systems and their effect on the physiological functioning of organisms**
 - d) **The dynamic interaction of living systems with each other and their environments**
 - e) **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.

Specific Human Physiology Course Objectives: the 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:

- understand the overall processes 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.

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/>

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.**

Disruptive Behavior (continued)

- **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)

Communication: 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

All announcements and other **important class business will occur at the Canvas site.** If you do not know you 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 PowerPoint lecture slides are posted under “Files” on **Canvas** and **students may copy them off in handout form and bring them to class-or-download to a device.**

All weekly assignments are posted under “Files” on **Canvas** and **students must copy them off in handout form and turn them in completed on paper at the beginning of the last class period of the week.** Assignments turned in late will have points deducted before they are graded. Note that there is no assignment for the last week of class (APR 27-APR 30). **If a student can't print off an assignment, please contact the instructor well in advance of the due date and they will supply a printed copy.**

No electronic submission of a completed assignment, e.g., via email or via Canvas, will be accepted-or-graded.

Attendance and Make-Up Policy

- **Students should attend each class period**, however, if an absence occurs, email and/or phone your instructor as soon as possible.
- **If you feel ill, stay home** and email and/or phone instructor as soon as possible.
- **IF YOU PLAN ON MISSING SCHOOL DUE TO A VACATION, WEDDING, or FAMILY REUNION, etc... THERE WILL BE NO MAKE-UP ALLOWED FOR THESE ABSENCES!**

If a student fails to complete **an assignment or exam** on the scheduled date(s), a “make-up” may be allowed based on the following criteria:

- A) **faster that the instructor is notified**
- B) **better the reason** for an absence and **written documentation** for that absence
- C) **more timely completion** of make-up

All instructors discuss each request and vote if mitigating circumstances allow for a make-up, and if so, how many points will be deducted...no individual instructor may make this decision on their own. Should a make-up be allowed, from 0-90% points will be deducted before grading.

The following circumstances will likely allow a make-up with few or no points deducted:

1) **Written statement** from a **health care provider** that student was **too injured or too ill** to participate on the scheduled date. Call the instructor **as soon as you know** that you will miss a lecture, assignment or exam.

2) **Written evidence of military service or jury duty**, or other mitigating circumstances that the instructor agrees were justifiable and unavoidable. Call the instructor **as soon as you know** that you will miss a lecture, assignment, or exam.

3) Students who must miss class because of a **DSU 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.

(Excerpts from Policy 23.5.3 follows)

23.5.3.1 **Prior to the absence**, students traveling with a club, team, or other group on an university-sanctioned activity must request leave.

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.

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.

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. **Instructor may require the student to submit work prior to the due date if the student will be absent.**

Strategies for Success:

- **Go to your instructor for help on a regular basis- don't wait until just before an exam, by then, it is too late!**
- If you plan to miss school due to a vacation, wedding, family reunion, etc... ...**don't enroll this semester...there will be no makeup allowed for these types of absences!**
- This course requires at a minimum of **eight 15 minute study sessions** each day. **If you don't have 2 hrs of study time each day-then do not take the course this semester!**
- **Form a study group** of three or four people to use as a source of alternative perspectives, "sounding boards" and study partners. Keep "on task" when studying and remember to apply the principles of critical thinking throughout.
- **Constantly question how material throughout the course and presented in different chapters is interconnected.** Always go back through previous chapters!
- **Record each lecture.** WRITE YOUR NAME and PHONE NUMBER ON A PIECE OF TAPE ON YOUR RECORDING DEVICE.
- **Before each class period,** skim through the titles of the PowerPoint slides to have a general idea of what will be covered in lecture. Download from Canvas **a copy of the PowerPoint** slides and take that copy to the lecture.
 - If printing off the PowerPoint slides, consider paying for **color** and to put no more than four slides per page so that **all text can easily be read!**
- **During lecture be sure to be an "active learner"**
 - ✓ **use a pencil to draw lines to connect ideas**
 - ✓ **circle important terms**
 - ✓ **copy whatever is written on the white board**
 - ✓ **write a note if instructor repeats a phrase**
- For each chapter, **first** identify the **three-five "big picture" concepts.** Circle which PowerPoint slides are explaining each of those concepts. Only after these "big concepts" are learned should you study detailed facts that support each of these concepts!

Strategies for Success (continued):

- **Mostly**, but not exclusively, **learning objectives are used to write each exam. Learning objectives appear as checkmarks on the PowerPoint slides.**
 - **Except for when specific text pages are assigned** to read, text material that is NOT in the PowerPoint slides is not used to write exam questions.
 - Internet animations or tutorials are not used to write exam questions.
- **STUDY ONLY 1-3 LEARNING OBJECTIVES DURING EACH 15 MINUTE STUDY SESSION!**
- If you have recorded the lecture, listen only to the portion of the lecture that **covers one learning objective** at a time
- Identify which **PowerPoint slides** refer to each learning objective and then study only one learning objective at a time. If needed to fill in details, skim text and watch suggested animations/tutorials from the internet.
- **Per learning objective, test your comprehension using at least one “active learning” technique such as:**
 - Try to think how “new” material in a learning objective is related to concepts and facts that have already been covered.
 - Start with a blank sheet of paper-or-white board and write a complete explanation of a particular learning objective-or- “teach” it to a study partner
 - Start with either a blank sheet of paper or a whiteboard, and diagram a complete explanation of a particular learning objective.

When you try these techniques, be certain to **correctly use each term** and to justify each statement with **specific facts** (values, measures, etc.). If you don't get it correct the first time, go back and review all the designated PowerPoint slides for one learning objective, and then **try again to explain from start to finish.**

- Complete at least a few of the **end of chapter questions** in textbook
- All weekly assignments are posted under “Files” on Canvas and students must copy them off in handout form and turn them in completed on paper at the **beginning of the last class period of the week**. No electronic submission of a completed assignment, e.g., via email or via Canvas, will be accepted-or-graded.
- **Study all concepts referred to on each assignment before each exam.** (Don't study only the blanks that you complete within an assignment, instead, understand the concepts!).

Examinations:

- All lecture sections will use the same exams and each exam will consist of an approximately equal number of questions submitted by all three instructors.
- Each chapter exam will **emphasize the chapters** listed on the schedule but a small portion will be **cumulative**.
- **Exam format is 40 multiple choice questions plus a couple additional questions.** Any question not dropped when the key is made and errors identified will count 3 points, so usually some extra credit will be on each exam. (40 questions X 3=120 points per exam)
- Students are tested on assignments, the assigned text readings and material covered in lecture and written on the PowerPoint slides. Many **learning objectives are used to write** each exam. Learning objectives appear as checkmarks on the PowerPoint slides.
- **Critical thinking skills are stressed** much more than simple memorization and recognition of the correct term. A student must be able to:
 - **integrate information** from one chapter to all other chapters
 - know the definition of terms and **use the appropriate term in context**
 - **extrapolate** from one situation and **apply knowledge to novel** situation
- **Because of Spring Break and the scheduled closing of the Testing Center, Exam 4 MUST BE TAKEN Thursday or Friday at the testing center. The testing center might change their hours of operation after the start of the semester so watch for an announcement that may change when Exam 4 must be completed!**
- All other chapter exams are completed in the **testing center** during the hours of operation beginning at **9am Friday and ending at 4pm on Monday**. It is the student's responsibility to check the testing center for the hours of operation for any scheduled exam, because hours sometimes change during the semester. Phone numbers are posted at: <http://dixie.edu/testing/>.
- Final exam is cumulative. **A student must complete FINAL exam to earn a passing grade in the course, no matter how many points they have earned.**
- **FINAL exam is completed in the classroom during the period noted on the syllabus.**

Grading:

Assignments14 Weekly Assignments X 10 points each.....140 points

No Assignment for the last week of class (APR 27-APR 30)

Assignments are due at the beginning of the last class period of each week

Chapter Exams.....7 exams (**highest 6 count** X 120 points each)..... 720 points

Except for Exam 4, all other chapter exams are **completed in the testing center** during the hours of operation beginning at **9am Friday and ending at 4pm on Monday.**

Final Exam.....140 points

A student must complete the FINAL exam to earn a passing grade in the course, no matter how many points they have earned up to that date.

Grading: There will be 1000 points possible for the course. NO ROUNDING UP OF SCORES WILL OCCUR. Final grades will be based on these 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 = <59.99%

Tentative schedule is provided. This schedule may change and the actual chapters covered for a particular exam **may change**; attend class on a regular basis to know about such changes.

sect 01 (Aponte-Kline) T, W, TH 9:00am-9:50am DAILY SCHEDULE NOT EXACTLY SHOWN
 sect 02 (Allen) T & TH 11:00am-12:15pm SCHEDULE IN BLUE
 sect 50 (Seare) M & W 5:15pm-6:30pm SCHEDULE IN PURPLE

Sun	Mon	Tues	Wed	Thurs	Fri
WK 1 SYL and ROLL in LAB	12 JAN <i>Syllabus</i> 1 Intro Phys & Start Tissue	13 JAN <i>Syllabus</i> 1 Intro Phys & Start Tissue	14 JAN 1 Tissue & Homeostasis 3 Cell Membrane	15 JAN 1 Tissue & Homeostasis 3 Cell Membrane	16 JAN LAST DAY TO ADD without Instruct Signature
WK 2 18 JAN MEM LAB	19 JAN MARTIN LUTHER KING HOLIDAY	20 JAN 3 Cell Membrane	21 JAN 3 Cell Membrane	22 JAN 3 Membrane Potential	23 JAN EX 1 Ch 1 & part of Ch 3
WK 3 25 JAN NERV LAB	26 JAN 3 Membrane Potential	27 JAN 4 Neural & Hormone Communication	28 JAN 4 Neural & Hormone Communication	29 JAN 4 Neural & Hormone Communication	30 JAN

Sun	Mon	Tues	Wed	Thurs	Fri
WK 4 1 FEB EEG LAB	2 FEB 4 Neural & Hormone Communication <i>LAST DAY REFUND LAST DAY DROP WITHOUT "W"</i>	3 FEB 5 Central NS	4 FEB 5 Central NS <i>COURSES DROPPED FOR NON-PAYMENT</i>	5 FEB 5 Central NS	6 FEB EX 2 part of Ch 3, Ch 4 & 5 <i>LAST DAY ADD/AUD</i>
WK 5 8 FEB SENS LAB	9 FEB 6 PNS-Afferent	10 FEB 6 PNS-Afferent	11 FEB 6 PNS-Afferent	12 FEB 6 PNS-Afferent	13 FEB
WK 6 15 FEB VISIO LAB	16 FEB <i>PRESIDENT DAY HOLIDAY</i>	17 FEB 7 PNS-Efferent	18 FEB 7 PNS-Efferent	19 FEB 7 PNS-Efferent	20 FEB EX 3 Ch 6 & 7
WK 7 22 FEB ANS LAB	23 FEB 8 Muscle	24 FEB 8 Muscle	25 FEB 8 Muscle	26 FEB 8 Muscle	27 FEB
WK 8 1 MAR MUS LAB	2 MAR 9 Heart	3 MAR 9 Heart	4 MAR 9 Heart	5 MAR 9 Heart EX 4 Ch 8 & 9 MUST BE COMPLETED THURSDAY or FRIDAY due to testing cnt hours	6 MAR EX 4 Ch 8 & 9 <i>LAST DAY TO DROP INDIVID CLASS</i>
8 MAR Testing Center Closed	9 MAR Testing Center Closed <i>SPRING BREAK HOLIDAY</i>	10 MAR Testing Center Closed <i>SPRING BREAK HOLIDAY</i>	11 MAR Testing Center Closed <i>SPRING BREAK HOLIDAY</i>	12 MAR Testing Center Closed <i>SPRING BREAK HOLIDAY</i>	13 MAR

Sun	Mon	Tues	Wed	Thurs	Fri
WK 9 15MAR ECG, PULS, BP LAB	16 MAR 10 Blood Vessels	17 MAR 10 Blood Vessels	18 MAR 10 Blood Vessels 11 Blood	19 MAR 10 Blood Vessels 11 Blood	20 MAR EX 5 Ch 10 & 11
WK 10 22MAR REFLX LAB	23 MAR 12 Body Defenses	24 MAR 12 Body Defenses	25 MAR 12 Body Defenses	26 MAR 12 Body Defenses	27 MAR
WK 11 29MAR RESP LAB	30 MAR 13 Respiratory	31 MAR 13 Respiratory	1 APR 13 Respiratory	2 APR 13 Respiratory	3 APR EX 6 Ch 12 & 13
WK 12 5 APR Testing Center Closed URINE LAB	6 APR 14 Urinary	7 APR 14 Urinary	8 APR 14 Urinary	9 APR 14 Urinary	10 APR LAST DAY COMPLETE W ALL COURSES
WK 13 12 APR DIET LAB	13 APR 16 Digestive	14 APR 16 Digestive	15 APR 16 Digestive	16 APR 16 Digestive 18 Central Endocrine	17 APR EX 7 Ch 14 & 16
WK 14 19 APR REPRO LAB	20 APR 18 Central Endocrine	21 APR 19 Peripheral Endocrine	22 APR 19 Peripheral Endocrine	23 APR 20 Reproduction	24 APR
26 APR NO LAB	27 APR 20 Reproduction	28 APR 20 Reproduction	29 APR 20 Reproduction LAST DAY of CLASSES	30 APR NO CLASSES (reading day)	1 MAY
3 MAY	4 MAY FINAL Seare 5-6:50pm	5 MAY FINAL Aponte-Kline 8-9:50am Allen 11-12:50pm	6 MAY	7 MAY	

Important Dates for 2015 Spring Semester (<http://dixie.edu/reg/?page=spring2015>)

Oct 31 Spring 2015 Bachelor's degree Graduation Application Deadline

Nov 17 Spring Registration open to Seniors (90+ earned credits)

Nov 18 Spring Registration open to Juniors (60+ earned credits)

Nov 19 Spring Registration open to Sophomores (30+ earned credits)

Nov 20 Spring Registration open to All Students

Jan 12 Classwork Starts

Jan 15 Last Day for Waitlist

Jan 16 Last Day to Add Without Signature

Jan 19 Martin Luther King Jr. Day

Jan 22 Drop/Audit Fee Begins (\$10 per class)

Jan 22 Residency Application Deadline

Jan 27 \$50 Late Registration/Payment Fee

Feb 2 Spring 2015 Associate's degree Graduation Application Deadline

Feb 2 Pell Grant Census

Feb 2 Last Day for Refund

Feb 2 Last Day to drop without receiving a "W" grade

Feb 4 Courses dropped for non-payment

Feb 6 Last Day to Add/Audit

Feb 16 President's Day

Mar 2 Summer 2015 Bachelor's degree Graduation Application Deadline

Mar 2 Mid-Term Grades Due

Mar 6 Last Day to Drop Individual Class

Mar 9-13 Spring Break

Mar 23 Fall Class schedule available online

Mar 23 Summer Registration open to Seniors (90+ credits)

Mar 24 Summer Registration open to Juniors (60+ credits)

Mar 25 Summer Registration open to Sophomores (30+ credits)

Mar 26 Summer Registration open to all students

Apr 1 Fall 2015 Bachelor's degree Graduation Application Deadline

Apr 10 Last Day for Complete Withdrawal

Apr 13 Fall Registration open to Seniors (90+ credits)

Apr 14 Fall Registration open to Juniors (60+ credits)

Apr 15 Fall Registration open to Sophomores (30+ credits)

Apr 16 Fall Registration open to all students

Apr 29 Classwork Ends

Apr 30 Reading Day

May 1 Associate's degree Graduation Deadline - Summer 2015

May 4-7 Final Exams

May 8 Commencement