

BIOL 1108K, Principles of Biology II
Fall Semester, 2017 **Sections A, B, C**

Lecture (BC 1023): **TR** **2:00 p.m. - 3:15 p.m.**
Laboratory (BC 1073): **Section A (CRN 82067): Wed.: 10:00 a.m. – 12:50 p.m.**
 Section B (CRN 82068): Wed.: 2:00 p.m. – 4:50 p.m.
 Section C (CRN 82069): Thurs.: 9:30 a.m. - 12:20 p.m.

Instructor: Dr. Russ Goddard, BC 2090. (Phone 249-2642; or Dept. office 333-5759)
(Office hours: TWR 1:00 – 1:50 p.m.; TR 3:30 – 4:00 p.m.)
Email: rgoddard@valdosta.edu **Note:** This is the official electronic contact method and address for Dr. Goddard!

Dr. Goddard does not respond to email sent through BlazeView!

Course Catalog Description: BIOL 1108 Principles of Biology II; 3-3-4; An introduction to physiological processes in plants and animals. Structure, nutrition, transport, coordination, reproduction, and development are addressed.

Required Materials:

Text: Sadava, D., D.M. Hillis, H.C. Heller, and S.D. Hacker. 2016. **Life: The Science of Biology. 11th edition.** Sinauer Associates Inc., Sunderland, MA and MacMillan Publishers.

NOTE: Text must include student access to the Publisher's Website including "LaunchPad"
<https://store.macmillanlearning.com/us/product/Life%3A-The-Science-of-Biology/p/1319010164>

The Course Specific URL is: <http://www.macmillanhighered.com/launchpad/life11e/5844763>

Online Laboratory Manual: Grove, T.J. Biology Lab Manual. Great River Learning.

First time use: <https://www.grtep.com/index.cfm/core/General/index>

Direct Course link: <http://vsu.grtep.com/index.cfm/bioprelab/page/topicslabprep>

Student Recommended Laboratory Study guide: Van De Graaff's Photographic Atlas for the Biology Laboratory, 7e.

<https://www.morton-pub.com/catalog/biology/van-de-graaffs-photographic-atlas-biology-laboratory-7e>

General Objectives: This course continues the introduction to basic principles of biology started in BIOL 1107.

Where BIOL 1107 focused on cellular structure and function addressing how life is similar through unifying cellular mechanisms, BIOL 1108, in concept, was designed as a comparative organismal physiology course to address organismal function and the diversity seen in life as defined by variations in multicellular organism structure and function. One way of interpreting how we study function (organisms) is that we really ask two basic questions; 1) how do organisms form (structure/development), and 2) how do organisms function (physiology). This course is designed to present the basics of development and physiology along two evolutionary lines in particular; those giving rise to multicellular plants and animals. Additionally, comparisons will be made on how organisms obtain energy, how they get their nutrition, how gas exchange is handled, how wastes are managed, how circulation connects many systems, as well as how these systems are regulated, particularly through hormones.

Attendance: Attendance in this course absolutely is required. Students should be seated at the beginning of class. If you are late, your attendance may not be acknowledged. Additionally, anyone arriving late could miss points from quiz questions (no make-ups!). The student is responsible for all material missed regardless of the reason for absences.

ABSOLUTELY NO LECTURES OR LABORATORIES CAN BE "MADE UP." In the event that a student will miss a class, s/he should notify the instructor in writing by email BEFORE the missed class. The student will miss any points assessed during the missed class, but penalty points assessed for absences may be waived at the discretion of the instructor.

Graded Course Components: Your final grade will be based on your performance in the following course components:

Additional unannounced in-class assignments may count toward the final grade during the semester.

Lecture: (300 pts): There will be 3 lecture exams and an optional comprehensive final exam given on the dates listed below. Students are required to know the lecture material and the readings from the text for exams and quizzes. Information presented in the laboratory may also be included in these exams. Each exam counts 100 pts to your

final grade.

Lecture grade: (100 pts). During this course the instructor will require students to read all text book chapter material before it is presented in class. Further, students will be assigned “Learning Curve” quizzes to complete within the LaunchPad web site before the material is scheduled in class. All learning curve quizzes must be completed by the due date regardless of whether the instructor’s lectures are keeping up with the schedule. Once the chapter material is completed in lecture, a new assignment called the “summative chapter quiz” will be assigned on LaunchPad for each chapter presented. Adequate time will be given to complete the summative quiz before your opportunity to take it expires. The lecture exam will consist of a single chapter score that is the average between the LaunchPad score (effectively 100%) and your summative quiz score. All chapter scores will be added and computed as a percent score for the final lecture score to count 100 pts towards your final grade.

Final Exam (100 pts): The final comprehensive exam is scheduled for **Wednesday, December 6th from 2:45 – 4:45 p.m. in our classroom.** Students will have the option of taking this exam or skipping it and counting it as their “drop” grade.

Dropped grade: The lowest score you receive among either the four lecture exams or the lecture grade, or the final exam will be excluded (dropped) and will not be used for computing your final grade. Therefore, although there are 500 possible points from lecture exams, only 400 points will be used to compute your final grade. It is not possible to “drop” any Laboratory grades from your final grade.

Laboratory: (200 pts) The laboratory is not integrated with the lecture material but is autonomous except for the grade you receive in laboratory being integrated into a single course grade. The major points towards your grade assessed in the laboratory will be through two laboratory practicals. Each practical will be worth 100 points; All Lab quizzes, and selected homework assignments will count for another 100 points total. Of the 300 points earned in lab, your lab score will be computed as a percent score out of 200 points total. As the laboratory is considered an extremely important part to learning “hands-on” biology, any student will automatically *lose* points from their final lab grade for any absence from laboratory.

Final grades will be based on a percentage of your cumulative points relative to the total points possible:

Lecture Exams:	300 pts	} (low dropped)
Lecture Grade	100 pts	
Final Exam	100 pts	
Laboratory:	<u>200 pts</u>	
Total:	600 pts	

Guaranteed grade distribution is as follows:

A = 90-100% (540-600 points)
B = 80-89.9% (480-539 ")
C = 70-79.9% (420-479 ")
D = 60-69.9% (360-419 ")
F = ≤ 59.9% (≤ 359 points)

Notes on grading philosophy: Students should note that a grade of "A" in this course represents an exemplary command of the material covered. To obtain this grade of excellence, it is recommended that students study daily and clarify with the professor any problems regarding course information, as they arise.

MAKE-UP EXAMS: The exam schedule is posted below. It is assumed that because students are registered for this course at the scheduled time and exams are given during this time, all students will be able to attend. Additionally, since one exam grade is dropped, absolutely **NO make-up exams are given.** If you cannot make it to a test at the assigned time for ANY reason, your exam grade will be zero and this will be the grade that is dropped in the computation of your final grade. In no circumstance should a student registered for this course miss two exams. If you know you will miss more than one exam time, you should **DROP THIS COURSE NOW.**

EXAM SCHEDULE:

NOTE: “Bubble” sheets will be used during exams. Please bring and use an “HB” or “#2” pencil with you to the exams to insure that your answers are recorded and scored accurately

You will have the class time only to complete each lecture exam and 2 hours for the final.

Exams will consist of multiple choice questions. The exam schedule is as follows:

Exam 1: Thursday, Sept. 14, 2017
Exam 2: Monday, Oct. 24, 2017
Exam 3: Thursday, Nov. 30, 2017

Mid-term Lab Practical: 4, 5 Oct. 2017
Final Lab Practical: 29, 30 Nov. 2017

Final Examination: **Wednesday, December 6th from 2:45 – 4:45 p.m. in BC 1023.**

Procedure for exams:

- No books, electronic devices (including cell phones), or notebooks will be allowed during exams. Students using such items, including cell phones that ring during the exam, will be asked to leave and will receive a zero

for the exam.

- No talking will be allowed during the exam, but students are welcome to come to the instructor's desk to ask questions about the exam. If a cell phone rings during an exam, disrupting the exam, the student will be asked to leave. ***Turn off your cell phones during exams!***
- Every student should bring their University ID.

BlazeView. Some resources will be made available through BlazeView

Students experiencing difficulties using BlazeView should seek assistance through the VSU Microcomputing & System Services HELP-Desk located in Odum Library (telephone 245-4357).

Assignments passed in electronically. When a course assignment is required to be passed in electronically (e.g. in a document format like MS Excel) Dr. Goddard does not accept OneDrive shared files. The purpose of passing these assignments in electronically is so the document can be graded and sent back to the student. Too often, OneDrive files do not allow write privileges to the instructor so all files must be in the program format and attached to an email to rgoddard@valdosta.edu (Word document in *.doc or *.docx format; Excel document in *.xls or *.xlsx format).

Mid-term, or in-progress grades: The instructor is required to submit in-progress grades prior to mid-term. In this course, students will have feedback on at least one major exam by midterm, several lecture chapter scores, and laboratory scores that will contribute to their "in-progress" grade. Even a failing mid-term grade can be changed to a grade of excellence by the end of the course if students adjust their time and performance in the class appropriately, particularly since one major lecture score is dropped for computation of the final score.

Student identification. Students should have in their possession at all times their VSU student identification card. In order to verify the identification of students officially enrolled in the course, it is the instructor's prerogative to request official student photo identification cards at any time during lecture. During examinations, students will routinely be asked to display their VSU student identification cards visibly on the desk top and to make them available for inspection by their instructor and/or assistants.

Academic Integrity: Any behavior suggestive of academic dishonesty will lead to a reprimand, failure of an assignment, or failure of the course at the discretion of the instructor, but based on the severity of the infraction(s). Cooperative learning and group interactions are common and necessary to scientists and this activity is encouraged in the form of laboratory work and discussions about data and information. However, on assignments designed to assess individual learning of material in the class, work must be completed totally independently. Behavior contrary to this principle constitutes cheating. Students should fully understand that plagiarism is not tolerated in this department or by the instructor and full appreciation for the intellectual property of others should be respected completely.

Plagiarism is the representation of someone else's work as your own. You may not blatantly copy phrases, paragraphs, or ideas from another's work. You cannot paraphrase someone else's ideas and use them as your own. You must analyze all data and work by others and then integrate this information with new data and conclusions that you independently synthesize, properly citing past work that supports your conclusions.

Disruptive behavior: No disruptive behavior of any kind will be tolerated in this course. Talking during lectures is disruptive due to the nature of the acoustic design of the room. Students should restrict talking and discussion to pertinent questions related to course material and these questions should be directed toward the instructor. Entering a classroom late is discouraged, particularly from the front of the room, because it is disruptive, as is leaving early. Any student disrupting lectures will be required to leave the classroom. Use of cellular telephones, pagers, or any similar remote communication device is prohibited during scheduled lectures or examinations. If students bring cellular telephones or similar devices to lecture, it is their responsibility to switch them off prior to the beginning of the lecture period. Ringing, buzzing, or any other sounds emitted from such devices will be treated as disruptive behavior on the part of the owner/possessor, and the owner/possessor will be asked to leave lecture immediately (including during exams!).

Privacy Act (FERPA): The Family Educational Rights and Privacy Act (FERPA) prohibits the public posting of grades by social security number or in any manner personally identifiable to the individual student. No grades can be given over the telephone, as positive identification cannot be made by this manner. Students may check their grades and unreturned papers/exams any time during the instructor's office hours (BC 2090).

Accessibility Statement

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Students with disabilities who are experiencing barriers in this course may contact the Access Office for assistance in determining and implementing reasonable accommodations. The Access Office is located in Farbar Hall. The phone numbers are 229-245-2498 (V) and 229-375-5871 (VP). For more information, please visit <http://www.valdosta.edu/access> or email: access@valdosta.edu.

Tentative Lecture and Lab schedule (subject to revision):

Lecture:				Laboratory:	
<u>Lecture</u>	<u>Date:</u>	<u>Topic:</u>	<u>Chapter Reading(s) - pages</u>	<u>Day(s)</u>	<u>Exercise</u>
1	15 Aug.	How is physiology important in our understanding of biology?	PowerPoint lecture 1	16,17 Aug.	Independent Lab Assignment: Introduction to Basic Statistics
2	17 Aug.	History of Life on Earth	Pg. 507 – 527		
3	22 Aug.	Phylogeny	Pg. 448 – 466	23, 24 Aug.	Nonvascular, Seedless Plants: Mosses, Liverworts, and Hornworts
4	24 Aug.	Bacteria and Archaea	Pg. 528 – 551		
5	29 Aug.	Origin and Diversification of Eukaryotes	Pg. 552 – 571	30, 31 Aug.	Vascular Plants: Ferns, Gymnosperms and Angiosperms
6	31 Aug.	Evolution of Plants 1: Nonvascular to vascular plants	Pg. 572 – 591		
7	5 Sept.	Evolution of Plants 2: evolution and diversification of seed plants	Pg. 592 – 612	6, 7 Sept.	Angiosperm Reproduction
8	7 Sept.	Reproduction in Flowering Plants	786 - 804		
9	12 Sept.	The Plant Body	Pg. 715 – 734	13, 14 Sept.	Angiosperm Development
10	14 Sept.	Exam #1			
11	19 Sept.	Gas Exchange & Transport in Plants	Pg. 735 - 749	20, 21 Sept.	Plant Cells, Vegetative Organ Structures, and Patterns of Growth
12	21 Sept.	Plant Nutrition	Pg. 750 – 764		
13	26 Sept.	Regulation of Plant Growth	Pg. 765 – 785	27, 28 Sept	Growth and Transpiration
14	28 Sept	Plant Responses to the Environment	Pg. 805 – 822		
15	3 Oct.	Animal Origins and Evolution of Body Plans	Pg. 635 – 657	4, 5 Oct.	Midterm Lab Practical
16	5 Oct.				
	5 Oct.	<i>Midterm Date</i>			
	10 Oct.	Fall Break (Mon. & Tues.) No Class			
17	12 Oct.	Animal Development Protostome animals	Pg. 916 - 937 Pg. 658 – 683	11, 12 Oct.	Diversity of Porifera, Cnidaria, Platyhelminthes, and Annelida
18	17 Oct.	Deuterostome animals	Pg. 684 – 714		
19	19 Oct.	Physiology, Homeostasis, Temperature Regulation	Pg. 823 – 843	18, 19 Oct.	Diversity of Mollusca, Nematoda, Arthropoda, Echinodermata, and Chordata
20	24 Oct.	Exam 2			
21	26 Oct.	Animal Nutrition, digestion, absorption	Pg. 1068 - 1090	25, 26 Oct.	Introduction to Animal Tissues
22	31 Oct.	Gas Exchange in Animals	Pg. 1022 - 1042		
23	2 Nov.			1, 2 Nov.	External and Internal Anatomy of the Fetal Pig

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24	7 Nov.	Salt and Water Balance and Nitrogen Excretion	Pg. 1093 - 1114	8, 9 Nov.	Sensory Systems
25	9 Nov.	Animal Circulatory Systems	Pg. 1043 - 1067		
26	14 Nov.	Neurons and Nervous Systems	Pg. 938 - 959	14, 15 Nov.	Cardiovascular System
27	16 Nov.	Musculoskeletal Systems:	Pg. 1001 - 1021		
28	21 Nov.	Sensory Systems	Pg. 960 - 980	22 Nov.	Thanksgiving Holiday, No Labs this week
29	23 Nov.	Animal Reproduction	Pg. 899 - 921		
30	28 Nov.	Exam 3		29, 30 Nov.	Final Lab Practical
	6 Dec.	Final Exam Period: 2:45 - 4:45 p.m. in in BC 1023			