

NATIVITY B.V.M. HIGH SCHOOL
ADVANCED HUMAN ANATOMY AND PHYSIOLOGY SYLLABUS

Teacher: Mr. Jason C. Jones
Room: 302 (Science Department)

Phone: (570) 622-8110 (School Hours)
Email: jjones@nativitybvm.net
mrjones_science@yahoo.com

Website: http://websites.pdesas.org/mrjones_science/default.aspx

Course Description This lab-based science elective is designed primarily for students who are interested in college preparation for majors in biology or health-related careers. The rigorous curriculum is designed to provide the student with a detailed study of the structure and function of the human body systems and their coordination in maintaining homeostasis. Dissection of organisms and appropriate organs will complement course work. The course is a “dual credit” course developed in conjunction with Alvernia University. This course is worth 4 college credits if the student meets the necessary criteria.

Pre-requisite: Approval of Department Chairperson or Biology Teacher

Required Materials Always come to class prepared and ready to learn.

- 3-Ring Binder
- Pencil
- Black ink pen
- Scientific Calculator
- Computer w/Internet Access
- Colored Pencils
- Paper: Loose leaf and Graphing
- Sharpie
- Textbook: Hole’s Human Anatomy and Physiology 13th edition

Grading Procedures, Policies, and Student Progress

All work completed in this class will be graded on a weighted basis. The grade earned for each marking period will result from the following weighted categories:

(A) 100-93 (B) 92-86 (C) 85-78 (D) 77-70 (F) 69-0

Know your grade! Log onto the MMS Portal to view your average and assignments.

Quarter averages are determined in the following manner:

Majors (Tests/Projects/Research Papers/Lab Practicals)	50%
Laboratory Exercises/Activities	35%
Minors (Class & Homework Assignments/Quizzes/Notes)	10%
C.A.F.E. Participation Grade (Cooperation, Attendance, Faith, Effort)	5%

100%

**Semester Exam*

20% of semester average

*More information related to majors, labs, and minors will be provided verbally to the students in class as we discuss the policies and procedures.

Assessments: A combination of formative and summative assessments will be used to monitor student progress and cumulate a quarter grade. These assessments will include, but not be limited to, unit tests, lab investigative reports and analyses, homework problems and review questions, chapter quizzes, independent student work, hands-on activities and simulations, collaborative work, scientific journal reviews, class discussions, peer teaching, literacy activities, etc.

Academic Honesty Policy (Cheating, Plagiarism, and Copying Another's Work): See policy written in student handbook. Please see policy below if the teacher determines you were cheating on a major test more than once:

- 1st Offense: See "Academic Honesty Policy" in student handbook.
- 2nd Offense: See 1st Offense; Student automatically fails the quarter with an average of 65% or lower, if quarter grade reflects a lower score. A failing grade will be issued no matter the length of time between the 1st and 2nd offense.
- 3rd Offense: See 2nd Offense; Student automatically fails the semester/course with an average of 65% or lower, if the cumulative average reflects a lower score. Please know that summer school credit recovery may be necessary if a failure results for the year.

***THE TEACHER STRICTLY ENFORCES THIS POLICY!**

Assignments: All assigned work is due at its specified date/time. Incomplete homework procedure:

- 1 day late will result in 25% point deduction from total value.
- 2 days late will result in 50% point deduction from total value.
- 3 days late will result in 75% point deduction from total value.
- 4 or more days late, work WILL NOT be accepted.

Absent from Class: The student is responsible for all missed work when absent from class. This includes notes, any assigned class/homework work, and scheduling a make-up date for tests, labs, and quizzes. Assignments due on day of your absence(s) is/are due at the beginning of class the day you return unless otherwise specified by the teacher. Please see assignments above for point deductions. Since a week's notice is given for announced tests, you are not excluded from taking the test if missing a review day. Make-up work cannot be completed during our scheduled class time. Please make necessary arrangements with the teacher. Any missed labs must be made up immediately upon return. In some cases, an alternative laboratory assignment may be given due to the nature of the lab.

Tutoring/Study Sessions: Never hesitate to see me for extra help! Class study sessions are highly encouraged before tests. Both tutoring and study sessions can be made by appointment with the instructor as needed.

GENERAL INFORMATION

Student Expectations *Always think...C.A.F.E.* Cooperation, Attendance, Faith, & Effort.

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|------------------------|--------------------------------|
| • Give RESPECT! | • Be PREPARED! |
| • Be POSITIVE! | • Actively PARTICIPATE! |
| • Think SAFETY! | • Always LISTEN! |
| • Be PROMPT! | • Be LEARNING! |

BE YOUR BEST by SHOWING ME YOUR BEST YOU!

Nativity BVM Student Handbook The policies and procedures stated in the Student Handbook of Nativity BVM High School apply to this class. Failure to abide to these policies may result in behavioral and/or academic disciplinary actions.

Tardiness: Tardiness will be handled as per the school's policy. A tardy will be counted any time a student arrives to class after the bell has rung without a written note from a teacher/staff member excusing your lateness.

Discipline Plan A 4-step discipline plan will be followed for any student who fails to abide to the policies and procedures of this course.

- 1) **1st Offense**-verbal warning to student
- 2) **2nd Offense**-student-teacher meeting; behavioral analysis paper completed
- 3) **3rd Offense**-Referral sent to the dean of students for disciplinary action.
- 4) **4th Offense**-Referral to dean of students for disciplinary action; parent-teacher-student conference scheduled

*Please note that any serious wrongdoing will automatically result in 3rd or 4th Offense.

Field Trip Statement: Students will be required to occasionally perform class assignments/tasks outside the school building or on designated field trips. All school and classroom policies and procedures are applicable when participating in all field trips. You agree to release and discharge the Diocese of Allentown, its officers, agents, and employees exercising reasonable care within their scope of employment, from liability growing out of personal injuries and property damage resulting or occurring during the above mentioned activity, or in transit from said activity.

Electronic Devices Policy Students must receive permission from the instructor for use of personal electronic devices (i.e. cell phones, computers, iPods, iPads, Nooks, translators, etc.) during class time. In the event personal electronic devices are to be used in class for academic purposes, the student must abide by the school's acceptable use policy and school rules regarding technology. Failure to use your personal electronic device for its intended academic purpose and/or follow the rules and regulations regarding technology and Internet use will result in disciplinary action and loss of technology privileges.

Remind Message Signup: To receive class update messages: Text to: 81010 Message: @3177b

Connect Ed Login Information: Used for Online Assignments; Tests; LearnSmart Labs

User Name:_____

Password:_____

Google+ /Gmail: Used for Communication, Discussions, Document Sharing, and Collaboration

User Name:_____

Password:_____

MMS Parent/Student Portal: Used to track your grade and see missing/incomplete assignments.

Class Webpage: Used for accessing links, videos, YouTube video lectures, documents, etc.

Tentative Course Schedule:

Week 0: Summer Assignment

Week 1: 9/1-9/4

- Course Welcoming! Course Syllabus and Contract; Laboratory Safety/Contract
- Anatomical and Medical Terminology-Suffixes and Prefixes
- Chapter 1: Introduction to Human Anatomy and Physiology Read pgs. 9-37
- Lab: Lab: Safety in the Biology Lab; Lab: Directional Terminology and Body Cavities; Lab 1 Scientific Method and Measurements; Lab: Introduction to Microscope Care and Use

Week 2: 9/8-9/11

- Chapter 2 Chemical Basis of Life Read pages 58-80
- Chapter 3 Cells Read pages 84-117
- Labs: Lab 2 Cell Structure and Function Lab 3 Movements Through Membranes

Week 3: 9/14-9/18

- Chapter 4 Cellular Metabolism Read pgs 122-146
- Labs: Rat Dissection
- **Unit 1 Test Chapters 1-4**

Week 4: 9/21-9/25

- Chapter 5 Histology Read pages 151-174
- Labs: Epithelial Tissue/Connective Tissue/Muscular Tissue/Nervous Tissue

Week 5: 9/28-10/2 Spirit Week

- **Chapter 5 Test on Histology**
- Continue with Histology Labs *Tissue identification, structures, and functions

Week 6: 10/5-10/9

- **Histology Lab Practical* Date TBD This counts as a major test grade.**
- Chapter 6 Integumentary System Read pages 179-196
- Labs: Integumentary System / Fetal Pig Dissection

Week 7: 10/12-10/16

- **Test on Integumentary System**
- Chapter 7 Skeletal System
- Labs: Lab 6 Organization of the Skeleton, Lab 7 Vertebral Column and Thoracic Cage, Lab 8 Pectoral Girdle and Upper Limb, Lab 9 Pelvic Girdle and Lower Limb

Week 8: 10/19-10/23

- Skeletal System Labs con't
- **Skeletal System Test**

Week 9: 10/26-10/30

- **Skeletal System Laboratory Practical Date TBD This counts as a major test grade.**
- Chapter 8 Articulations Read pages 270-288
- Labs: Articulation Labs

Week 10: 11/2-11/6

- **Articulations Test**
- Chapter 9 Muscular System Read pages 292-341
- Labs: Lab 10 Skeletal Muscle Structure and Function, Lab 11 Muscles of the Head and Neck, Lab 12 Muscles of the Chest, Shoulder, and Upper Limb, Lab 13, Muscles of the Hip and Lower Limb

Week 11: 11/9-11/13

- Muscular Systems Labs con't

Week 12: 11/16-11/20

- **Muscular System Test**
- Cat Dissection

Week 13: 11/23-11/25 Thanksgiving Recess Begins

- Cat Dissections Con't/Ketchup Week

Week 14: 12/1-12/4

- **Muscular System Lab Practical Date TBD This counts as a major test grade.**

Week 15: 12/7-12/11

- Chapter 10 Nervous System 1: Basic Structure and Function Read pages 360-385
- Labs: Lab 14 Nervous Tissues and Nerves

Week 16: 12/14-12/18

- Chapter 11 Nervous System 11: Divisions of the Nervous System Read pages 389-438
- Labs: Lab 15 Spinal Cord, Spinal Nerves, and Nerves; Lab 16 Reflex Arc and Reflexes, Lab 17 Brain and Spinal Cord (Sheep Brain Dissection)

Week 17: 12/21-12/23 Winter Recess

- Week 16 Con't with Chapter 11 material

Week 18: 1/4 – 1/8

- **Chapter 10/11 Test Date TBD**

Week 19: 1/11-1/15

- Ketchup Week

Week 20: 1/18-1/22 Semester Exams Begins

- Review Week/Mid-Term Exam

Advanced Anatomy and Physiology I ENDS
Cumulative Semester Exam

Week 21: 1/25-1/29

- Chapter 12 Nervous System III: Senses Read Pages 443-482
- Labs: Lab 18 General Senses; Lab 19 Smell and Taste, Lab 20 Ear and Equilibrium; Lab Eye and Sight Sheep Eye Dissection

Week 22: 2/1-2/5

- Labs: Nervous System III Con't
- **Test on Chapter 12**

Week 23: 2/8-2/12

- Chapter 13 Endocrine System Read pages 487-521
- NO LABS

Week 24: 2/16-2/19

- Chapter 14 Blood Read pages 525-550
- Labs: Lab 21 Blood Cells; Lab 22 Blood Typing

Week 25: 2/22-2/26

- Chapter 15 Cardiovascular System
- Labs: Lab 23 Cardiac Cycle

Week 26: 2/29-3/4

- **Test on Chapters 14 & 15**
- Ketchup Week

Week 27: 3/7-3/11

- Chapter 16 Lymphatic System and Immunity Read pages 616-642
- NO LABS

Week 28: 3/14-3/18

- Chapter 17 Digestive System Read Pages 648-688
- Labs: Lab 26 Digestive Organs;

Week 29: 3/21-3/23 Spring Recess Begins

- Chapter 18 Nutrition and Metabolism Read pages 695-724
- Labs: Lab 27 Action of a Digestive Enzyme

Week 30: 3/29-4/1

- **Test on Chapters 16-18**

Week 31: 4/4-4/8

- Chapter 19 Respiratory System Read pages 730-763
- Labs: Lab 24 Breathing and Respiratory Volume; Lab 25 Control Breathing\

Week 32: 4/11-4/15

- Chapter 20 Urinary System Read pages 767-798
- Lab: Lab 28 Urinary Organs

Week 33: 4/18-4/22

- Chapter 21 Water, Electrolyte, and Acid-Base Balance Read pages 802-818

Week 34: 4/25-4/29

- **Test Chapters 19-21**

Week 35: 5/2-5/6

- Chapter 22 Reproductive Systems Read pages 821-860

Week 36: 5/9-5/13

- Chapter 23 Pregnancy, Growth, and Development Read pages 866-900

Week 37: 5/16-5/20

- **Projects Due**

Advanced Anatomy and Physiology II Ends
Cumulative Semester Exam