**Health Science Anatomy & Physiology**

 **Syllabus**

Ms. Barriel

**Contact Information**

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Rooms: Cafeteria/108/207C/209/218

**Course Description:**

The Health Science Course is a comprehensive program designed for high school students to explore the dynamic fields of healthcare, with a strong focus on anatomy and physiology. This course offers a blend of engaging lectures, hands-on activities, and real-world case studies, giving students an in-depth understanding of the human body and its various systems. Students will gain essential health science skills and practical knowledge, preparing them for careers in fields such as nursing, physical therapy, medical practice, and more. By emphasizing both theoretical learning and clinical applications, this course equips students with the foundational knowledge necessary to pursue healthcare careers.

**Key Learning Areas Include:**

* Anatomical Structure and Function: An exploration of the major body systems—skeletal, muscular, circulatory, respiratory, digestive, nervous, and endocrine systems—examining their structures, functions, and interconnections.
* Clinical Applications: Understanding how knowledge of anatomy and physiology is crucial for patient care and diagnosis in healthcare practice.
* Hands-On Learning: Engaging in dissections, anatomical modeling, and simulations to deepen understanding of the body's structure and functions.

**Course Curriculum:**

The Health Science Course offers a deep dive into the essential disciplines of anatomy and physiology, equipping students with the knowledge needed to pursue healthcare professions. The curriculum begins with an exploration of the human body’s major systems—skeletal, muscular, circulatory, respiratory, digestive, nervous, and endocrine—examining the structure and function of each, as well as their interrelationships.

Students will engage in hands-on learning experiences, including dissections and interactive models, allowing them to visualize and better understand anatomical structures. This approach not only enhances theoretical knowledge but also provides practical experience in identifying key anatomical landmarks and understanding physiological processes.

A strong emphasis is placed on the clinical relevance of anatomy and physiology, with students applying their learning to real-life medical scenarios through case studies. This critical thinking approach helps them understand how this knowledge is applied in diagnosing conditions, formulating treatment plans, and offering patient care.

The curriculum also incorporates collaborative projects that focus on teamwork and communication, which are vital skills for aspiring healthcare professionals. In addition, students will interact with guest speakers from various healthcare fields, such as nursing, physical therapy, and medical practice, to gain firsthand insights into the career paths available and the importance of anatomical knowledge in healthcare settings.

By the end of the course, students will have a thorough understanding of human anatomy and physiology, preparing them for advanced studies in health sciences or direct entry into healthcare-related careers. The course fosters a passion for healthcare while reinforcing the importance of anatomy and physiology in delivering quality patient care.

**Materials**

**Students are expected to bring the following materials to each class:**

* Pencil
* Eraser
* 1-inch binder with dividers
* Loose-leaf paper
* Color pencils
* Highlighters
* Stethoscope

**Homework**

Homework is essential for reinforcing class material, allowing students to practice their knowledge and skills independently. Completing homework on time is crucial for academic success and personal responsibility. Any incomplete classwork may be sent home for completion. Timely submission helps students stay on track and prepares them for the demands of a nursing career.

**Late Work Policy**

Students are expected to submit assignments on time. Late work will not be accepted unless there is an excused absence. Students are responsible for obtaining missed assignments from a classmate or the teacher. They will have a maximum of three days to complete the work after providing an acceptable excuse to the school. In the case of extenuating circumstances, parents are encouraged to contact me to discuss alternative arrangements.

**MDCPS Grading Policy**

**Grades:**

* 100%-90% = A
* 89%-80% = B
* 79%-70% = C
* 69%-60% = D
* 59% or below = F

**Weighted Grading Scale:**

* 30% Assessments
* 25% Quizzes
* 20% Classwork
* 5% Homework
* 20% Projects & Cooperative Presentations

**Classroom Rules**

Policies are aligned with the school-wide Parent-Student Handbook.

* Come prepared with all necessary materials.
* Listen attentively and follow instructions.
* Always show respect to others.
* Keep hands, feet, and personal belongings to yourself.
* Take care of school property.
* No food, drinks, or gum in class.

**Consequences for Not Following Rules**

1. Verbal warning
2. Change of seating arrangement
3. Detention
4. Parent/Teacher conference
5. Office referral

(Severe offenses may skip some steps.)

**Conduct & Effort Grades**

* Conduct Grades reflect overall behavior in class and are independent of academic grades. They are assessed based on multiple factors.
* Effort Grades (1-3) reflect a student’s dedication to the instructional program, taking into account potential, study habits, and overall attitude.

**Zero Policy (Z)**

A grade of "Z" indicates that an assignment has not been submitted or completed. Students who receive a "Z" are encouraged to reach out to the teacher for guidance on how to make up the missed work, if applicable.

**Notebook Guidelines**

Students are required to bring their notebooks to class every day. Notes should be updated regularly, dated, and clearly labeled. Periodically, notebooks will be collected and graded at random without prior notice. Students should also assess their work and make corrections using pens.

**Plagiarism & Academic Integrity**

All assignments must be completed with honesty and integrity. Plagiarism, or submitting someone else’s work as your own, will result in a score of zero, notification to parents, and potential disciplinary action. Cheating in any form will be treated similarly.

**Extra Credit**

At the beginning of the school year, students will have the opportunity to earn extra credit by bringing in the following classroom supplies:

* Lysol wipes
* Black Expo markers
* Whiteboard erasers/wipes
* Alcohol prep pads
* Black Sharpies
* Tissues
* Pencils
* Index cards
* Paper Towels

These items will help ensure that our classroom remains clean and well stocked throughout the year. The extra credit will be awarded for any of these donated items, with more details to follow in class.

**Teacher/Parent Resources**

* Zoom
* Google Classroom

Conferences are available by appointment. Parents and teachers can connect via email for ongoing communication.

**Syllabus Acknowledgment**

Student’s Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Period: \_\_\_\_

Student’s Phone: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Guardian’s Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Guardian’s Phone: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Guardian’s Email: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Relationship: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Please sign below to confirm that you have read and understood the expectations for students this new school year. Students will receive a grade for returning this signed form. Thank you!

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Student Signature

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Parent/Guardian Signature

**Health Science & Nursing Class Consent and Liability Waiver for Student and Parent Participation**

**Dear Parents and Students,**

As part of the Health Science & Nursing curriculum, students will have the opportunity to engage in a variety of hands-on activities that will help them develop critical skills in anatomy, physiology, and basic nursing practice. These activities are designed to support students in understanding the human body, practicing nursing techniques, and exploring healthcare topics. This consent form provides both students and parents with a full understanding of the nature of these activities and the necessary consents for participation.

**Scope of Participation:**

Hands-On Anatomy, Physiology, and Nursing Skills Practice:
Throughout the course, students will practice a variety of nursing skills, along with learning the anatomy and physiology behind them. Some of the key activities include:

* Vital Signs Monitoring:
Students will practice measuring blood pressure, heart rate, respiratory rate, and temperature using tools like stethoscopes, thermometers, and other diagnostic equipment.
* Basic Physical Assessments:
Students will practice listening to heart and lung sounds, examining skin conditions, and performing non-invasive physical assessments. These activities will enhance their understanding of how anatomy and physiology contribute to overall patient health.
* First Aid and Emergency Response:
Students will learn and apply CPR techniques, basic wound care, and emergency response protocols, including techniques like the Heimlich maneuver.
* Infection Control and Medical Hygiene:
Students will demonstrate proper hand hygiene, the use of personal protective equipment (PPE) like gloves, masks, and gowns, and proper techniques for sterilizing tools in a healthcare setting.
* Anatomical Understanding and Application:
Through anatomical models, dissections (if applicable), and digital simulations, students will learn about the skeletal system, muscular system, nervous system, circulatory system, and more, relating anatomical knowledge to practical nursing applications.
* Medical Equipment Usage:
Students will become proficient in using tools such as pulse oximeters, stethoscopes, thermometers, and blood pressure cuffs to assess patient health based on anatomical and physiological principles.

**General Nursing and Health Science Topics:**

In addition to hands-on activities, students will engage in discussions that expand their understanding of the healthcare field and the role of anatomy and physiology in patient care:

* Human Anatomy & Physiology:
A comprehensive exploration of major body systems, their functions, and interrelationships, including detailed studies of the cardiovascular, respiratory, digestive, nervous, musculoskeletal, and endocrine systems.
* Nursing Skills in Context:
Understanding how knowledge of anatomy and physiology enhances patient assessments, diagnostic processes, and the development of treatment plans.
* Healthcare Ethics and Professionalism:
Learning about patient confidentiality (HIPAA), ethical dilemmas in healthcare, and the importance of cultural competence in patient care.
* Clinical Care Practices:
Understanding the vital connection between anatomical knowledge and clinical practices such as wound care, pain management, medication administration, and patient education.

**Professionalism, Respect, and Boundaries:**

We understand that some of the hands-on activities and discussions may be new or unfamiliar to students. It is important that students approach these activities with respect, professionalism, and an open mind. All activities and discussions will be conducted in a safe, supportive, and non-judgmental environment. Students will be encouraged to engage in each experience as a learning opportunity that contributes to their growth as aspiring healthcare professionals.

**Parental/Guardian Consent and Liability Waiver**

By signing this form, you:

1. Consent to your child’s participation in nursing activities, including hands-on practice with vital signs, basic physical assessments, first aid techniques, infection control, medical equipment usage, and anatomy-related activities.
2. Acknowledge that while every effort will be made to ensure a safe and supervised learning environment, the hands-on nature of the activities involves some inherent risks, such as minor injuries or exposure to medical equipment, and that you agree to your child’s voluntary participation.
3. Release and Hold Harmless the instructor, school, and district from any liability related to injuries or damage that may occur during participation, as long as these activities are conducted as per the outlined curriculum and under proper supervision.
4. Understand that new skills or topics may be introduced throughout the course, and you will be notified in advance should new activities or topics arise that require additional consent.
5. Confirm that you have had the opportunity to ask questions regarding any aspect of the course, its activities, and this consent form.

If you have any questions, concerns, or would like more information, please feel free to contact me directly.

**Consent Form Acknowledgment**

Student Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
Grade/Period: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Parent/Guardian Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
Phone Number: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
Email Address: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Relationship to Student: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Parent/Guardian Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Student Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_