



International Baccalaureate
Baccalauréat International
Bachillerato Internacional

**IB Physics
Mr. Hearn**

Teacher Contact Info	
Room:	302
Email:	hearn@richmond.k12.ga.us
Tutoring:	Flex times, MTW 7:20-8:10 (appointment, only)
Remind Group:	Text - 81010 Message - Year 1 : @hearnib1 Year 2 : @hearnib2
Edmodo Group:	Year 1: eqzy3 Year 2: cjie84

I. Course Description

- Physics is an exploration science which attempts to make sense of the world around us. During this course we will explore the theories and laws regarding motion, electromagnetism, nuclear energy, sound, and light. The IB curriculum is more rigorous and will occur at a faster pace. This is a college level course.

II. Instructional Philosophy

- I believe that education is a living thing. Education, like every other thing in this world, is constantly changing. Every scholar is different and can be taught. I believe that the power of relationships, fun, and positive outlook supported by a challenging environment can benefit the whole scholar. As an educator, I believe in teaching scholars to have a strong brain and a strong heart. I will be acting more of a facilitator for this course, while providing students with foundational knowledge; yet allowing students to have a role in their learning process as well. This is my essence of teaching.

III. Course Overview

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Topics	Year Covered
1. Measurements and Uncertainties	1
2. Mechanics	1
3. Thermal Physics	2

4. Waves	1
5. Electricity and Magnetism	1
6. Circular Motion and Gravity	1
7. Atomic, Nuclear, and Particle Physics	2
8. Energy Production	2
Option: Astronomy	2
Test *IB Exams CANNOT be missed. IB Exams have priority over any other exam conflicts.	May 20- Paper 1 & Paper 2 (Afternoon) May 21- Paper 3 (Morning)

- Soon into Year 2 you will have to decide whether you wish to be considered for Higher Level or Standard Level Testing. Higher Level requires further additional options to be taken. However if you let me know what you are thinking early, I can better help you prepare.
- The IB Test is Broken Down As Follows:
 - i. Paper 1: 30 multiple-choice questions (20%)
 - ii. Paper 2: Short answer and extended response questions (Core) (40%)
 - iii. Paper 3: Data- and practical-based questions plus, short answer and extended response questions on the option (Astrophysics) (20%)
- The first two papers will be completed on May 20th, while the last paper will be completed on May 21st.

IV. Materials Needed

- **Notebook (Composition)**
- **Scientific Calculator**
- **Textbook**
 - i. I have provided a link to the online version of our textbook in Edmodo. If you wish to purchase your own physical copy, you may! The textbook is from Hodder and is named *Physics for the IB Diploma 2ed* by Talbot and Allum.
 - ii. ISBN-13: 978-1471829048
 - iii. ISBN-10: 1471829049

V. Homework

- **Homework will occasionally be assigned as there is SO much to cover in the two years. Most homework will be administered and turned in through Edmodo.**

VI. Grading Policy

- Assessments: 75%
 - i. A minimum of 10 assignments will be recorded in this category per grading period. These include quizzes, tests, and other graded assignments. However, the different types of assessments come with different weights. Tests will consists of the heaviest portion, but students **may retake tests** until they master the learning objectives.

- Labs: 25%
 - i. The Final Internal Assessment (IA) will be subject to a higher weight.

VII. Credit Recovery

Credit Recovery options will be available for students who fail to acquire at least a 75 for the quarter. This post quarter assignment will allow students to bring their grade up to a passing grade of 75 once it is found to be suitable work. Credit recovery will not be offered to students who obtain a 75 or higher as a means to increase their grade. These assignments can be found on Edmodo.

VIII. Internal Assessment

- Students in Year 2 will be required to complete an Internal Assessment. This will be done in lieu of the county science fair experiment. Students in Year 1 will practice for Year 2 by completing a general IA in lieu of the county science fair experiment. The IA is one of the core elements of the class that is required for the completion of the IB Diploma (DP or CP).
- **Year 2 due dates:**
 - i. Topic Proposal Form Signed off by: **August 13**
 - ii. Annotated Bibliography Due: **August 30**
 - iii. Personal Engagement/Exploration Portions Done: **By September 12**
 - iv. COMPLETED Rough Draft of IA due: **By November 4**
 - v. COMPLETED Revised IA due: **December 4**
- These dates are FIRM dates. I am only allowed to look at the IA once before I grade them and send them off for IB representatives to grade.

IX. Group 4 Project

- The Group 4 Project is required for all Year 2 students. The Group 4 project requires students to complete a project alongside others from different IB science classes. Class time will be allotted to complete the project towards the end of the year. This is another required component of the class for the completion of the diploma. This task will be supervised by the respective teachers, graded, and sent off to IB representatives as well.

X. Classroom Expectations

- In this classroom, you are expected to act as a MODEL student! Since this is a College-Level Environment, you are expected to come prepared to learn each day you are able. Although it will be a fairly relaxed environment, you are required to follow all of the classroom rules. *Respect* is a big part of this class!