

Forsyth County Schools Course Syllabus 2022/2023

COURSE TITLE: International Baccalaureate Physics

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Course Description: This course is designed to introduce students to the laws of physics, the experimental skill required in physics, and the social and historical aspects of physics as an evolving body of human knowledge about nature. The course is offered at both higher level (HL) and standard level (SL). Students at HL and SL study six topics: physical measurement, mechanics, thermal physics, waves, electricity and magnetism, and atomic and nuclear physics. Optional course topics for students at both HL and SL, from which the HL student may choose two, while the SL student may choose two from this list as well as the further options list. The optional course topics are: biomedical physics, the history and development of physics, astrophysics, relativity, and optics. The further options for students at SL include: mechanics extension, quantum physics and nuclear physics, and energy extension. Students at SL are required to study any two options with duration each of 15 hours. Students at HL are required to study any two options with duration each of 22.5 hours. (IBO: A Guide to the IB Diploma Programme for Universities & Colleges).

Standards: Course Standards can be found on p. 130 <https://ibphysics.org/wp-content/uploads/2016/01/ib-physics-syllabus.pdf>

Required Assignments: Reading assignments and homework problem sets will be given via Kognity. Students will be required to complete an Internal Assessment that will be graded and submitted as part of their IB Test score.

Availability for Extra Help: IF and by appointment

Makeup Work: Make up work is defined as work assigned during a student's absence, not work assigned prior to an absence. The student has five (5) school days upon returning to school to complete make-up work. The teacher has the discretion to grant a longer period to make up work, if there are extenuating circumstances.

Grading Calculations:

Course Average = 50% (1st Sem. Course Work) + 50% (2nd Sem. Course Work)
1st and 2nd Semester Course Work = 75% Summative + 25% Formative

Grading Policy:

A = 90 – 100

B = 80 – 89

C = 70 – 79

Failing = Below 70

Formative Assessments include, but are not limited to homework, class work, practice tests, rough drafts, and sections of projects/research papers/presentations.

Summative Assessments include, but are not limited to unit tests, final projects, final essays, final research papers, and final presentations.

Learning Resources/Textbook(s): All learning resources, both print and digital, are meant to support and enhance the student learning experience of this class. Below are the names of the textbooks and websites that will be used in this course. Some of the web-based resources require parent permission per federal regulations. Federal laws that guide parent permission requirements are as follows:

- **Children's Internet Protection Act (CIPA):** The school is required by CIPA to have technology measures and policies in place that protect students from harmful materials including

those that are obscene and pornographic. Any harmful content contained within inappropriate sites will be blocked. <http://fcc.gov/cgb/consumerfacts/cipa.html>

- **Children’s Online Privacy Protection Act (COPPA):** COPPA applies to commercial companies and limits their ability to collect personal information from children under 13years of age. No personal student information is collected for commercial purposes. <https://www.ftc.gov/tips-advice/business-center/guidance/complying-coppa-frequently-asked-questions-0>
- **Family Educational Rights and Privacy Act (FERPA):** FERPA protects the privacy of student education records and gives parents the right to review records. Under FERPA, schools may disclose directory information in certain circumstances. <http://www2.ed.gov/policy/gen/guid/fpco/ferpa>

Please review the resource list. Each website related to the curriculum resources is provided along with their privacy policies. Should you have any questions regarding these resources immediately contact the course teacher via email or phone.

Name of Resource*	Hard copy/Website	Privacy Policy
Glencoe <i>Physics: Principles & Problems</i>	Class set of textbooks	Not applicable
Explore Learning	Digital supplemental material (accessed via ClassLink)	https://www.explorelearning.com/index.cfm?method=Controller.dspPrivacy
Newsela	Digital supplemental material (accessed via ClassLink)	https://newsela.com/about/privacy-policy/

** The following resources are county approved. These resources may vary by school due to sequencing, pacing, curriculum design, and/or individual needs of students.*

Parent Initial for Approval **	Name of Resource	Website	Privacy Policy
	Phet Interactive Simulations	https://phet.colorado.edu/en/simulations/filter?subjects=physics&type=html&sort=alpha&view=grid	Policy
	M.I.T. OpenCourseware	M.I.T. Science, Technology, & Society	Privacy Policy
	Kognity	https://kognity.com/its-about-time/	Privacy Policy

*** The following resources are web-based resources that require parent permission. By signing the syllabus, the parent is approving these resources. Should you have any questions regarding any of these classroom resources, please contact your student’s teacher via email.*

