

Special Topics in Physics

St John Baptist De La Salle Catholic School, Addis Ababa
Department of Physics
SP001

Instructor:	(Aaron GK)	Class Location:	(Eamon De Valera Data Center & Google Meet)
Email:	(aaronkebede@stjohn.edu.et)	Class Day/Time:	(Every day from 11am to 12pm)
Office Hours:	(12-12:30pm everyday)	Office Location:	(Staff & Google Meet)
Course Language:	(English/Amharic)	Term:	(Semester Break)

COURSE DESCRIPTION

Special topics in physics: cosmology & high energy physics, general relativity & quantum gravity, phenomenology.

STUDENT LEARNING OUTCOMES

The successful student in this course should be able to:

- Understand and simply explain the inspiration for research in fundamental physics topics.
- Have an adequate understanding of the history of Cosmology, current research topics & important outlooks for the future.
- Have an adequate understanding of the history of Dark Matter, current research topics & important outlooks for the future.
- Have an adequate understanding of the history of String theory, current research topics & important outlooks for the future.
- Have an adequate understanding of the acquainting quantum physics & general relativity, attempts to reconcile the subjects, current research topics & important outlooks for the future.

PREREQUISITES

Since this is an extremely introductory course, no prior knowledge is required, however, a physics background helps.

TEXTBOOK: *Openstax College Physics 2e*

Good news: your textbook for this class is available for free online, in web view and PDF format!

You can use whichever formats you want. Web view is recommended – the responsive design works seamlessly on any device.

www.openstax.org/details/books/college-physics-2e

GRADING AND EVALUATION

There will be a quiz everyday after class that should be attempted before the end of the next class. At the end of the course, you are expected to write a paper in the topic of your interest that aligns with the course.