# Introduction to Nuclear and Particle Physics

Course requirements

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## Classes

Tuesday 11:00 AM - 12:59 PM; I-203

Thursday 3:00 PM - 4:59 PM; I-203

Friday 11:00 AM - 12:59 PM; I-204

Attendance is not mandatory, but recommended.

If you decide that you do not want to take the class after all, make sure to unregister from the class. Otherwise the class will be failed.

# Syllabus

## **Topics:**

| Unit | Topic                           |
|------|---------------------------------|
| 1    | Basic concepts                  |
| 2    | Nuclear structure               |
| 3    | Nuclear decay and Radioactivity |
| 4    | Nuclear reactions               |
| 5    | Elementary particle dynamics    |
| 6    | Symmetries                      |

## Syllabus

#### **Evaluation:**

- Quizzes 40% of the grade
- Midterm exam ~ 30% of the grade
- Final exam ~ 30% of the grade

Exams, Quizzes will be announced in advance in class and via email.

## Academic integrity

Academic integrity is very important.

Cheating in exams will have a penalty of a score 0 for the full exam.

Cheating in the quizzes will have a penalty of a score 0 for the relevant part of the Quiz.

## Recommended reading

I am going to use material from these books for the class:

Krane, Kenneth: Introductory Nuclear Physics.

Griffiths, David J.: Introduction to Elementary Particles

Perkins, Donald H.: Introduction to High Energy Physics

There are also many other good books on the topic and plenty of online resources.

### Resources

My email: <a href="mailto:hdenes@yachaytech.edu.ec">hdenes@yachaytech.edu.ec</a>

Please send me an email, so that I know who is in the class.

GitHub repository with slides and course information:

https://github.com/helgadenes/Nuclear\_and\_particle\_physics\_yachay

# Class representative?