

List of Suggested Projects/Presentations:

Computer-oriented projects (also in group, max 3 people):

- Fit of the nuclear BE with the liquid drop model
- Kinetics of Radioactive Decays

Math-oriented projects (also in group, max 2 people):

- The Fermi Gas Model
- The Nuclear Shell Model (QM required)
- Tunnel effect (QM required)

Presentations. Essays on other topics:

- Nuclear Astrophysics
- Supernova Astrophysics
- Radiocarbon dating
- Radiation therapy
- A specific particle accelerator
- A specific radiation detector
- Nuclear Medicine
- Nuclear Energy
- Super-Heavy Elements
- Other ideas from you?
- Solar Neutrino Problem
- Fusion with Tokamaks/Lasers
- Quark-Gluon Plasma
- Big-Bang Nucleosynthesis
- Radioactive Waste Processing

All the projects have to be presented in class with a ~10min presentation/demonstration.