

# Nuclear Science & Engineering (NSE) Annotation

Students are given the opportunity to acquire the annotation in the field of Nuclear Science & Engineering (together with their diploma) if they meet certain requirements.

## Requirements

1. **Electives, design project, system integration project, internship:** *at least* 15 ECTS points which are NSE related, including *at least* 9 ECTS from the NSE electives list.
2. **MSc thesis project:** covers an NSE-related subject. Number of ECTS vary per programme

Whether the MSc thesis, design project, system integration project or internship are NSE-related has to be decided upon by the NSE coordinator. Students who opt for the NSE annotation need to take the MSc programme's requirements for their MSc thesis into account as well. Example: the MSc thesis project of CE students has to match their specific track (Chemical Product Engineering or Process Engineering).

## NSE Electives list

Period	Course
1	AP3352 - Introduction NSE (3/6)
2	AP3352 - Introduction NSE (3/6)
3	CH3771 - Nuclear Chemistry (6)
	CH3785 - Nuclear Medicine (3)
	AP3371D - Radiological Health Physics (6)
	AP3311D - NXP for studying microscopic structures and dynamics (3/6)
	AP3091D - Elementary Particles (3/6)
	AP3341D - Nuclear Reactor Physics (3/6)
	AP3232 D - Medical Imaging Signals and Systems (3/6)
	AP3582 - Medical Physics of Photon and Proton Therapy (3/6)
	CH3783 - Materials chemistry for the nuclear fuel cycle (3) <sup>Error! Bookmark not defined.</sup>
4	AP3311D - NXP for studying microscopic structures and dynamics (3/6)
	AP3091D - Elementary Particles (3/6)
	AP3341D - Nuclear Reactor Physics (3/6)
	AP3232 D - Medical Imaging Signals and Systems (3/6)
	AP3582 - Medical Physics of Photon and Proton Therapy (3/6)

## Examples

### Applied Physics

- NSE electives 15 ECTS
- MSc thesis Project (NSE) 48 ECTS

or

- NSE electives 9 ECTS
- Internship (NSE) 18 ECTS
- MSc thesis Project (NSE) 48 ECTS

or

- NSE electives 9 ECTS
- Design Project (NSE) 12 ECTS
- MSc thesis Project (NSE) 48 ECTS

### Chemical Engineering

- NSE Electives 9 ECTS
- Design Project (NSE) 12 ECTS
- MSc thesis Project (NSE) 40 ECTS

or

- NSE Electives 15 ECTS
- MSc thesis Project (NSE) 40 ECTS

or

- NSE Electives 9 ECTS
- Internship (NSE) 18 ECTS
- MSc thesis Project (NSE) 40 ECTS

## NSE Coordinator

Dr. Martin Rohde

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