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|----|---|---|---|---|-----|----|----|----|----|-------|-------|-------|-------|-------|-------|--|--|--|--|
| 3 | Mechanics | C | 1 | | 7,0 | 75 | 45 | 30 | 0 | 3 2 0 | | | | | | | | | |
| 4 | Mechanics: Laboratory Practice | C | | 1 | 4,0 | 45 | 0 | 0 | 45 | 0 0 3 | | | | | | | | | |
| 5 | Calculus II | C | 2 | | 7,0 | 75 | 45 | 30 | 0 | | 3 2 0 | | | | | | | | |
| 6 | Probability Theory and Physical Statistics | C | 2 | | 4,0 | 45 | 30 | 15 | 0 | | 2 1 0 | | | | | | | | |
| 7 | An Introduction to Astronomy | C | 2 | | 5,5 | 60 | 30 | 30 | 0 | | 2 2 0 | | | | | | | | |
| 8 | Basic Computer Knowledge | C | | 2 | 3,5 | 30 | 0 | 0 | 30 | | 0 0 2 | | | | | | | | |
| 9 | Molecular Physics | C | 2 | | 6,0 | 60 | 30 | 30 | 0 | | 2 2 0 | | | | | | | | |
| 10 | Molecular Physics: Laboratory Practice | C | | 2 | 4,0 | 45 | 0 | 0 | 45 | | 0 0 3 | | | | | | | | |
| 11 | Mathematical Methods – Vector, Tensor and Complex Analysis | C | 3 | | 7,0 | 90 | 45 | 45 | 0 | | | 3 3 0 | | | | | | | |
| 12 | An Introduction to Geophysics | C | 3 | | 4,0 | 45 | 30 | 15 | 0 | | | 2 1 0 | | | | | | | |
| 13 | Electricity and Magnetism | C | 3 | | 8,0 | 90 | 60 | 30 | 0 | | | 4 2 0 | | | | | | | |
| 14 | Electricity and Magnetism: Laboratory Practice | C | | 3 | 4,0 | 45 | 0 | 0 | 45 | | | 0 0 3 | | | | | | | |
| 15 | An Introduction to Electronics | C | 3 | | 3,0 | 30 | 30 | 0 | 0 | | | 2 0 0 | | | | | | | |
| 16 | An Introduction to Electronics: Laboratory Practice | C | | 3 | 4,0 | 45 | 0 | 0 | 45 | | | 0 0 3 | | | | | | | |
| 17 | An Introduction to Meteorology | C | 4 | | 4,0 | 45 | 30 | 15 | 0 | | | | 2 1 0 | | | | | | |
| 18 | Programming and Computational Physics | C | 4 | | 7,0 | 90 | 30 | 15 | 45 | | | | 2 1 3 | | | | | | |
| 19 | Optics | C | 4 | | 7,0 | 75 | 45 | 30 | 0 | | | | 3 2 0 | | | | | | |
| 20 | Optics: Laboratory Practice | C | | 4 | 4,0 | 45 | 0 | 0 | 45 | | | | 0 0 3 | | | | | | |
| 21 | Mathematical Methods – Differential Equations | C | 4 | | 8,0 | 90 | 45 | 45 | 0 | | | | 3 3 0 | | | | | | |
| 22 | Theoretical Mechanics* | C | 5 | | 6,0 | 75 | 45 | 30 | 0 | | | | | 3 2 0 | | | | | |
| 23 | Electrodynamics* | C | 5 | | 6,0 | 75 | 45 | 30 | 0 | | | | | 3 2 0 | | | | | |
| 24 | Atomic Physics and Interaction of Ionizing Radiation with Matter | C | 5 | | 4,5 | 60 | 45 | 15 | 0 | | | | | 3 1 0 | | | | | |
| 25 | Atomic Physics and Interaction of Ionizing Radiation with Matter: Laboratory Practice | C | | 5 | 4,5 | 45 | 0 | 0 | 45 | | | | | 0 0 3 | | | | | |
| 26 | Nuclear and Particle Physics | C | 6 | | 4,5 | 60 | 45 | 15 | 0 | | | | | | 3 1 0 | | | | |

| | | | | | | | | | | | | | | | | | | |
|----|--|---|---|---|------|-----|----|----|-----|--|--|--|--|-------|-------|-------|--------|--|
| 27 | Nuclear and Particle Physics: Laboratory Practice | C | | 6 | 4,5 | 45 | 0 | 0 | 45 | | | | | 0 0 3 | | | | |
| 28 | Quantum Mechanics | C | 6 | | 7,0 | 90 | 60 | 30 | 0 | | | | | 4 2 0 | | | | |
| 29 | Thermodynamics and Statistical Physics | C | 7 | | 7,0 | 90 | 60 | 30 | 0 | | | | | | 4 2 0 | | | |
| 30 | Contemporary Experimental Methods: Laboratory Practice | C | | 7 | 4,5 | 45 | 0 | 0 | 45 | | | | | | 0 0 3 | | | |
| 31 | Physics of Condensed Matter | C | 8 | | 5,5 | 75 | 60 | 15 | 0 | | | | | | | 4 1 0 | | |
| 32 | Practice in Astronomy/Meteorology/Geophysics | C | | 8 | 5,0 | 60 | 0 | 0 | 60 | | | | | | | | 0 0 4 | |
| 33 | Preparation and Defence of a BSc Thesis | C | 8 | | 10,0 | 150 | | | 150 | | | | | | | | 0 0 10 | |

* **Note:** V semester student have the opportunity to choose either the short or extended courses in Theoretical Mechanics (22) and Electrodynamics (23) and the extended courses' credits are shown below:

| | | | | | | | | | | | | | | | | | | |
|-----|----------------------------------|---|---|--|-----|-----|----|----|---|--|--|--|--|-------|--|--|--|--|
| 22a | Theoretical Mechanics (extended) | C | 5 | | 8,5 | 105 | 60 | 45 | 0 | | | | | 4 3 0 | | | | |
| 23a | Electrodynamics (extended) | C | 5 | | 7,0 | 90 | 60 | 30 | 0 | | | | | 4 2 0 | | | | |

Note: In addition to the above listed compulsory courses, students must also attend Sports (semesters I, II, III and IV) and a foreign Language.

COMPULSORY AND ELECTIVE COURSES (depending on the chosen modulus). Minimum required credits: 30. Semesters: V, VI, VII and VIII)

Modulus A: ASTROPHYSICS

| | | | | | | | | | | | | | | | | | | |
|--|---|-----|---|---|-----|----|----|----|----|--|--|--|--|-------|-------|-------|--|--|
| | General Astronomy I ** | C/E | | 5 | 4,5 | 60 | 30 | 15 | 15 | | | | | 2 1 1 | | | | |
| | An Introduction to Radio Astronomy | E | 5 | | 6,0 | 90 | 45 | 0 | 45 | | | | | 3 0 3 | | | | |
| | General Astronomy II ** | C/E | 6 | | 4,5 | 60 | 30 | 15 | 15 | | | | | 2 1 1 | | | | |
| | Observational Astronomy I | E | | 6 | 5,0 | 60 | 30 | 30 | 0 | | | | | 2 2 0 | | | | |
| | General Astrophysics I | E | | 6 | 5,0 | 60 | 30 | 30 | 0 | | | | | 2 2 0 | | | | |
| | General Astrophysics II | E | 7 | | 6,0 | 75 | 45 | 30 | 0 | | | | | | 3 2 0 | | | |
| | Stellar Astronomy | E | 7 | | 5,0 | 60 | 30 | 30 | 0 | | | | | | 2 2 0 | | | |
| | Cosmology | E | 7 | | 5,0 | 60 | 45 | 15 | 0 | | | | | | 3 1 0 | | | |
| | Stellar Photometry | E | 7 | | 6,0 | 90 | 30 | 30 | 30 | | | | | | 2 2 2 | | | |
| | Observational Astronomy II | E | 8 | | 6,0 | 75 | 30 | 45 | 0 | | | | | | | 2 3 0 | | |
| | Stellar Atmospheres and Interstellar Medium | E | 8 | | 6,0 | 75 | 45 | 30 | 0 | | | | | | | 3 2 0 | | |
| | Variable Stars | E | 8 | | 5,0 | 60 | 15 | 0 | 45 | | | | | | | 1 0 3 | | |

| | | | | | | | | | | | | | | | | | | | |
|--------------------------|---|---|---|-----|----|----|----|---|--|--|--|--|--|--|--|--|-------|--|--|
| Near-Earth Space Physics | E | | 8 | 5,0 | 60 | 45 | 15 | 0 | | | | | | | | | 3 1 0 | | |
| Geoelectricity | E | 8 | | 6,0 | 75 | 45 | 30 | 0 | | | | | | | | | 3 2 0 | | |

**** Note: Compulsory or elective depending on the chosen modulus).**

| | | | | | | | | | | | | | | | | | | | |
|---|---|-----|----|----|-----|------|------|------|-----|-----|----|----|----|------|------|------|------|----|----|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| | Attendance hours for compulsory subjects per semester | C | | | | 2325 | 1035 | 615 | 675 | 22 | 21 | 23 | 23 | 21 | 17 | 9 | 19 | | |
| | Number of ECTS-credits from Compulsory Subjects | C | | | 198 | | | | | 30 | 30 | 30 | 30 | 25,5 | 20,5 | 11.5 | 20,5 | | |
| | Number of exams for compulsory subjects | C | 24 | | | | | | | 3 | 4 | 4 | 4 | 3 | 3 | 1 | 2 | | |
| | Number of Continuous Assessment Grades for compulsory subjects | C | | 11 | | | | | | 1 | 2 | 2 | 1 | 2 | 1 | 1 | 1 | | |
| | <u>Total number throughout the course</u> (all hours for compulsory and minimal number of elective subjects) | C+E | | | | | 2850 | 1365 | 750 | 735 | 22 | 21 | 23 | 23 | 25 | 25 | 24 | 27 | |
| | Exams | C+E | 30 | | | | | | | 3 | 4 | 4 | 4 | 3 | 4 | 4 | 4 | | |
| | Continuous Assessment Grades | C+E | | 14 | | | | | | 1 | 2 | 2 | 1 | 3 | 2 | 2 | 1 | | |
| | ECTS-credits | C+E | | | 241 | | | | | 30 | 30 | 30 | 30 | 30 | 30,5 | 30 | 30,5 | | |

| Study practice | | | | | Industrial practice | | | | | Graduation Assessment | |
|-------------------------|----------|-------|-------|--------------|---------------------|----------|-------|-------|--------------|--|--|
| Type of Practice | Semester | Weeks | Hours | ECTS-credits | Type of Practice | Semester | Weeks | Hours | ECTS-credits | State Examinations | Defence of a BSc Thesis |
| Practice in Astronomy | 8 | 2 | 60 | 5 | | | | | | State examination: in none First state examinations session: July Second state examinations session: September | First state examinations session: July Second state examinations session: September |
| Practice in Meteorology | 8 | 2 | 60 | 5 | | | | | | | |
| Practice in Geophysics | 8 | 2 | 60 | 5 | | | | | | | |

The curriculum was endorsed at a session of the Faculty Governing Body held on 08.11.2005 and this has been recorded in the minutes (No 14) of the session.

DEAN: