



भारतीय विज्ञान शिक्षा एवं अनुसंधान संस्थान भोपाल
Indian Institute of Science Education and Research Bhopal

Office of Academic Affairs

IISERB/DOAA/2015/124

September 15, 2015

NOTE

Ref: Senate 2015-4/34th Meeting of the Senate (Agenda: 34.10)

The following are the mandatory requirements, as approved by Senate, for obtaining a minor degree, in addition to obtaining a major degree. These requirements will be enforced from the 2014 batch of BS-MS (Dual Degree) onwards.

In order to obtain a minor degree in any discipline, a student has to obtain a minimum of 24 credits from that Department. The minor degree(s) will be mentioned in the final Degree Certificates (in addition to the transcripts). The department specific additional requirements are listed below:

Department of Biological Sciences:

The following four courses are mandatory. The remaining credit requirements can be satisfied by taking any departmental courses offered in the third year and above.

BIO 301: Cell Biology (3)
BIO 303: Biochemistry-I (3)
BIO 304: Molecular Biology (3)
BIO 414: Ecology (4)

Department of Chemistry:

A student must take a minimum of four courses out the six courses listed below:

CHM 301: Symmetry and Group Theory (4)
CHM 311: Organic Chemistry I (4)
CHM 321: Physical Chemistry of Solutions (4)
CHM 302: Chemistry of Transition Metals (4)
CHM 312: Organic Chemistry II (4)
CHM 322: Principles of Quantum Chemistry (4)

In case not all courses are taken from the list, the remaining credit requirements can be satisfied by taking any departmental courses offered in the third year and above.

Department of Mathematics:

A student must take at least three 300-level courses and at least one 400-level course from the below mentioned list. The remaining two courses can be any mathematics courses offered in the third year and above.

300-level

- MTH 301: Groups and Rings (4)
- MTH 303: Real Analysis I (4)
- MTH 304: Metric Spaces and Topology (4)
- MTH 306: Ordinary Differential Equations (4)
- MTH 311: Advanced Linear Algebra (4)

400-level

- MTH 403: Real Analysis II (4)
- MTH 405: Partial Differential Equations (4)
- MTH 406: Differential Geometry of Curves and Surfaces (4)
- MTH 407: Complex Analysis I (4)

Department of Physics:

A minimum of 3 courses are to be credit from the list of courses as mentioned under Group 1. The remaining credit requirements can be satisfied by taking any courses from the list as mentioned under Group 1 and 2.

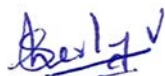
Group 1

- PHY 303: Quantum Mechanics-I (4)
- PHY 301: Mathematical Methods-I (4)
- PHY 305: Classical Mechanics (4)
- PHY 306: Statistical Mechanics (4)

Group 2

- PHY 403: Condensed Matter Physics (4)
- PHY 304: Quantum Mechanics-II (4)
- PHY 302: Mathematical Methods-II (4)
- PHY 401: Electrodynamics (4)
- PHY 404: Nuclear and Particle Physics (4)
- PHY 407: Atomic and Molecular Physics (4)
- PHY 409: Thermal Physics (4)
- PHY 422: Waves and Optics (4)

Both the **Department of Earth and Environmental Sciences** and **Department of Engineering Sciences** will also have the requirements of 24 credits each to obtain a minor degree. However, the mandatory course list from these departments will be informed at a latter point of time after approval by the Senate.



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