



भारतीय विज्ञान शिक्षा एवं अनुसंधान संस्थान भोपाल
शैक्षणिक कार्यालय

Circular

IISERB/DOAA/2020/133

March 19, 2020

Sub: Mandatory requirements for obtaining a minor for Y17 batch of BS/BS-MS (Dual Degree) Students.

Ref: Senate 49 (Agenda Item No. 49.6) dated July 30, 2018.

The following are the mandatory requirements for obtaining a minor, in addition to obtaining a major.

In order to obtain a minor in any discipline, a student has to obtain a minimum of 30 credits from that Department. The minor 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 student must take the following courses listed below:

BIO 201: Biology III: Fundamentals of Molecular Biology (3)

BIO 202: Biology IV: Basic Genetics (3)

BIO 303: Biochemistry I (4)

BIO 306: Immunology I (4)

BIO 418: Biophysics and Structural Biology (4)

BIO 406: Evolutionary Ecology (4)

The remaining credit requirements can be satisfied by taking any departmental courses offered in the second year and above.

Department of Chemical Engineering:

The student must take the following courses listed below:

CHE 301: Heat Transfer Operations (4)

CHE 302: Chemical Reaction Engineering I (4)

CHE 303: Fluid Mechanics and Mechanical Operations (4)

CHE 304: Mass Transfer and Separation Process (4)

The remaining credit requirements can be satisfied by taking any departmental courses offered in the second year and above.

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 addition to above, two 400 level or higher courses will also need to be taken.

The remaining credit requirements can be satisfied by taking any departmental courses offered in the second year and above.

Department of Electrical Engineering and Computer Science:

The student must take the following courses listed below:

ECS 201: Discrete Mathematics I (3)

ECS 202: Data Structures and Algorithms (3)

ECS 203: Basic Electronics (3)

ECS 204: Signals and Systems (3)

ECS 301: Principles of Communication (4)

ECS 409: Computer Organization (4)

The remaining credit requirements can be satisfied by taking any departmental courses offered in the second year and above.

Department of Economic Sciences:

The student must take the following courses listed below:

ECO 201: Econometrics I (4)

ECO 202: Microeconomics I (4)

ECO 204: Macroeconomics I (4)

ECO 307: Game Theory (4)

The remaining credit requirements can be satisfied by taking any departmental courses offered in the second year and above. However, ECO 500/600: Law Relating to Intellectual Property and Patents will not be counted towards minor degree.

Department of Earth and Environmental Sciences:

Credit requirements can be satisfied by taking any departmental courses offered in the second 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.

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)

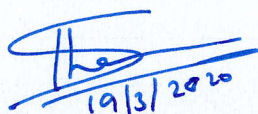
The remaining credit requirements can be satisfied by taking any departmental courses offered in the second year and above.

Department of Physics:

A student must take a minimum of three courses out the eight courses listed below.

- PHY 303: Quantum Mechanics-I (4)
- PHY 304: Quantum Mechanics-II (4)
- PHY 305: Classical Mechanics (4)
- PHY 306: Statistical Mechanics (4)
- PHY 401: Electrodynamics (4)
- PHY 402: Atomic and Molecular Physics (4)
- PHY 403: Condensed Matter Physics (4)
- PHY 404: Nuclear and Particle Physics (4)

The remaining credit requirements can be satisfied by taking any departmental courses offered in the second year and above.



19/3/2020

Dean, Academic Affairs

To,

1. All Students via E-mail.
2. All Faculty Members via E-mail.
3. Notice/Website.