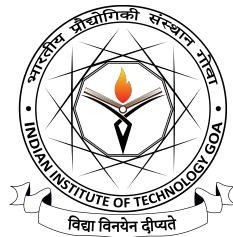


Minor Program

Rules and Regulations

Ver 2.0.3



Indian Institute of Technology Goa
Academic Office

Revision History

Revision	Date	Author(s)	Description
1.0.0	23-03-2021	SUGC	The version approved by the Senate, IIT Goa in its 9 th meeting
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Glossary

AMS Academic Management System. [2](#)

CPI Cumulative Performance Index. [2](#)

CSE Computer Science and Engineering. [1](#), [3](#)

EE Electrical Engineering. [1](#)

M&C Mathamatics and Computing. [1](#), [2](#)

ME Mechanical Engineering. [1](#), [3](#)

Program The programs are academic units listed under different Schools are essentially to give examples of different academic programs that can be offered through Schools. [1](#)

PUGC Program Undergraduate Committee. [2](#)

School Schools are collections of programs or academic units. [1](#)

SPI Semester Performance Index. [2](#)

student Unless otherwise mentioned, a student stands for a student enrolled in an Undergraduate Program at Indian Institute of Technology Goa. [1–3](#)

1 Introduction

The minor program is intended to equip a [student](#) of a major *program A* with the fundamentals of another major *program B*. For instance, a [Computer Science and Engineering \(CSE\) student](#) has the option to earn a minor in [Mechanical Engineering \(ME\)](#).

There will be at least four courses in the minor program. The [Schools](#) will specify the curriculum and semester-wise plan for offering courses as part of their minor program. Currently, minor programs are offered in [CSE](#), [Electrical Engineering \(EE\)](#), [Mathamatics and Computing \(M&C\)](#), and [ME](#) disciplines.

2 Common Rules and Regulations

1. A [student](#) can opt for only one minor program along with their major program.
2. A [student](#) from major program X can register for minor program Y provided the minor program Y is open to the [students](#) of major program X. For instance, in cases where major programs X and Y have considerable overlap, the [School](#) offering minor in Y may choose not to extend it to [students](#) of major program X.
3. The entry point to any minor program is in the 5th semester.
4. A [student](#) should have a minimum CPI of 7.00 to be eligible for the minor program. In addition the [student](#) should not have more than 2 outstanding backlog courses at the time of entry into the minor program.
5. The [Program](#) offering the minor may apply additional criteria such as higher CPI cut-off, constraints on the outstanding backlog requirement, and performance in certain institute core courses, etc. for admission into the minor program.
6. To acquire the minor degree, [students](#) must complete at least 12 credits through four courses (each course worth three or more credits) prescribed by the [Program](#) offering the minor by the end of the 8th semester.
7. If a [student](#) acquires E/F/FX grade twice during the minor program, they will not be eligible to continue in the minor program. In case of only one E/F/FX grade, they have to clear it (or replace it in case of elective courses of minor) by the end of 8th semester to acquire the minor degree.
8. The number of seats of a minor program shall be at least 20% of the sanctioned strength of the corresponding major program.
9. [Students](#) intending to undertake an internship in the 8th semester must complete the credit requirements for their minor degree by the end of the 7th semester.

3 Minor Course Registration

1. Minor course registration will happen through [Academic Management System \(AMS\)](#).
2. For the [students](#) who are registered for the minor program, the faculty advisor of the [student](#) will approve the minor course registration. Subsequently, the list of registrations will be verified by the [Program Undergraduate Committee \(PUGC\)](#) of the corresponding minor program.

4 Reporting of Grades

1. A separate grade report will be issued for minor programs. The transcript will display the list of all minor courses along with the grades awarded. *No [Semester Performance Index \(SPI\)](#)/[Cumulative Performance Index \(CPI\)](#)* will be awarded for the minor program.
2. Minor courses will not be counted towards [SPI/CPI](#) calculation of the major program, except in the following case. According to the prevailing curriculum, a [student](#) is allowed to take at most *two* minor courses in the open elective slots of the major program. In that scenario, grades for a minor course taken in an open elective slot will be counted towards the SPI/CPI calculation for the major program.

5 Program-wise Rules and Regulations

5.1 Computer Science and Engineering

1. CSE minor is not open to [M&C students](#).
2. The students must credit *all* the core courses mentioned at Table 1 and at least *two* minor electives mentioned at Table 2.

Course Code	Course Name	L-T-P-C	Semester (for CSE students)	Semester (for minor students)
CS223	Data Structures and Algorithms	3-1-2-5	III	V
CS222	Algorithm Design	3-1-2-5	IV	VI

Table 1: Core Courses in CSE

Course Code	Course Name	L-T-P-C	Semester (for CSE students)	Semester (for minor students)
CS211	Computer Architecture (<i>Prerequisite: CS210 (Digital Systems Design) or equivalent; only for EE students</i>)	3-0-3-4	IV	VIII
CS212	Computer Networks	3-0-3-4	IV	VIII
CS331	Machine Learning (<i>Prerequisite: CS230 (Probability and Statistics for Computer Science) or EE221 (Probability and Random Processes)</i>)	3-0-3-4	VI	VIII
CS330	Artificial Intelligence	3-0-3-4	V	VII
CS300	Programming Language Paradigms	3-0-3-4	V	VII

Table 2: Elective Courses in CSE

3. CS230 - Probability and Statistics for Computer Science is a prerequisite for CS331 - Machine learning. CS230 will be offered as an open elective to **ME students** who are chosen for a minor in **CSE** program.

5.2 Electrical Engineering

1. The **students** have to credit *all* the core courses mentioned at Table 3 and at least *two* minor elective mentioned at Table 4.

Course Code	Course Name	L-T-P-C	Semester (for EE students)	Semester (for minor students)
EE201	Signals and Systems	2-1-0-3	III	V
EE219	Electrical Machines Theory	2-1-0-3	IV	VI

Table 3: Core Courses in EE

Course Code	Course Name	L-T-P-C	Semester (for EE students)	Semester (for minor students)
EE239	Analog Electronic Circuits	2-1-0-3	IV	VI or VIII
EE309	Control Systems	2-1-0-3	V	VII
EE329	Digital Signal Processing	2-1-0-3	V	VII

Table 4: Elective Courses in EE

5.3 Mathematics and Computing

1. The students must credit *all* the core courses mentioned at Table 5 and at least two minor electives mentioned at Table 6.

Course Code	Course Name	L-T-P-C	Semester (for M&C students)	Semester (for minor students)
MA201	Real Analysis	3-1-0-4	III	V
MA205	Algebra	3-1-0-4	IV	VI

Table 5: Core Courses in M&C

Course Code	Course Name	L-T-P-C	Semester (for M&C students)	Semester (for minor students)
MA307	Linear Algebra and Applications	3-1-0-4	V	VII
MA305	Measure and Probability	3-1-0-4	V	VII
MA202	Multivariate Calculus	3-1-0-4	IV	VI or VIII
MA203	Numerical Analysis (<i>Not for ME students</i>)	3-1-0-4	IV	VIII
MA306	Topology	3-0-0-3	VI	VIII

Table 6: Elective Courses in M&C

5.4 Mechanical Engineering

1. The students must credit *all* the core courses mentioned at Table 7 and at least *one* minor elective mentioned at Table 8.

Course Code	Course Name	L-T-P-C	Semester (for ME students)	Semester (for minor students)
ME201	Fluid Mechanics	2-1-2-4	III	V
ME210	Mechanics of Materials	3-1-0-4	III	V
ME220	Manufacturing Processes I	3-0-0-3	IV	VI

Table 7: Core Courses in ME

Course Code	Course Name	L-T-P-C	Semester (for ME students)	Semester (for minor students)
ME300	Applied Thermodynamics	2-1-3-4	VI	VIII
ME310	Kinematics and Dynamics of Machines	2-1-2-4	V	VII
ME301	Heat Transfer	3-0-2-4	V	VII
ME322	Industrial Engineering and Operations Research	3-0-0-3	VI	VIII

Table 8: Elective Courses in ME