

# Indian Institute of Technology Goa

*B.Tech. Mathematics and Computing  
Curriculum – 2019 Batch*

Semester 1
Computer Programming
Calculus
Quantum Physics
Physical Chemistry
Organic Chemistry & Inorganic Chemistry
Humanities and Social Sciences
National Sports Organization
Intro. to Manufacturing
Intro. to Profession
Chemistry Lab

Semester 2
Linear Algebra
Ordinary Differential Equations
Software tools
Intro to Electrical and Electronics engineering
Engineering Graphics and Intro to CAD
Biology
National Sports Organization
Electricity and Magnetism
Physics Lab

Semester 3
Data Structures and Algorithms
Probability and Statistics
Discrete Mathematics
Linear Algebra and Applications
Real Analysis

Semester 4
Algorithm Design
Numerical Analysis
Algebra
Multivariate Calculus
Open Elective

Semester 5
Measure and Probability
Differential Equations I
Differential Equations II
Complex Analysis I
Complex Analysis II
Open Elective 1
Open Elective 2

Semester 6
Machine Learning
Theory of Computation
Time Series Analysis
Stochastic Processes
Topology
Open Elective

Semester 7
6 MONTHS INTERNSHIP
OR
BTP
Open Elective 1
Open Elective 2
*Electives yet to be finalized

Semester 8
<i>Yet to be finalized</i>

<b>List of Electives offered in Semester 5</b>
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Geometric Modelling
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Energy, Environment and Economics
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Language and Society
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<b>List of Electives offered in Semester 6</b>
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Optimization: Theory and Algorithms
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Computer Graphics using OpenGL
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Numerical Simulation and its applications
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