



Institute of  
Research  
Technology &  
Management

**PROSPECTUS**

## CHAIRMAN VOICE



I welcome you all to IRTM (Institute of Research Technology & Management). We at IRTM are proud to inform you that IRTM IRTM has a strong commitment to develop Management and IT professionals.

We have a team of well qualified and experienced trainers as faculties. These trainers are the professionals who are currently working in Management and IT companies. Their practical experience is what makes us different.

We are student oriented and receptive to their needs and requirements.

Our experience in conducting these training programs will endeavour the candidates in their career. The wide acceptance of these programs by the industry has encouraged us to become multi-dimensional and multi-faceted in terms of our approach and objectives.

I am confident that you will gain good benefits from our training programs as a student. I wish you every success in your studies and in your career.



**- Dr. Chetan Bhadkamkar**  
*Ph.D.(I.T.)*

## ABOUT US

Institute of Research Technology and Management (IRTM) was established with an aim to provide best software training to students and professionals that meets industry standards. We have a vision to grow as a trusted platform for management and IT training that will help our students to achieve knowledge and skills that will give them competitive edge and increase their employability in different industry verticals.

## WHY IRTM

- **70% Practical + 30% Classroom Training.**
- **Professional Work Environment.**
- **Live Project Training (for Management and IT)**
- **Training with industry experts**
- **Limited Seat**
- **Free E-books (for Management and IT)**
- **Education Loan Facility**
- **Industry leaders as Guest Lectures.**
- **Special Training for Interview.**
- **Industrial Visits Abroad.**

## OUR VISION

Our Social vision is to electively deliver knowledge and skills that prepares student to stay on top with new technologies and increase their proficiency.

## OUR MISSION

To deliver knowledge by engaging students in live corporate and project training this ensures complete grasp of the concept. The primary aim of our institute is to make candidate employable in the Management and IT industry and help them grab opportunities in the respective fields.

## HOW WE ARE DIFFERENT?

IRTM strongly believes the knowledge delivery cycle is not complete until students know how to employ best practices to apply that knowledge. We are the only institute that have strong emphasis on the practical application of knowledge; the reason we have made on the job training a part of our courses.

We provide students with on-the-job training from 2<sup>nd</sup> year in companies that makes them aware of the skills, knowledge and competencies required to perform a specific job in work environment. While the goal of our OJT is to help students get practical application of knowledge, it also helps in instilling basic aspects of work culture.

## Faculty of Management Studies

### Masters in Business Administration (MBA)

Sr. No.	Course	Duration	Mode	Eligibility
1	MBA ( Dual Specialization)	2 years	Semester	Graduation in any field
1	Executive MBA ( Single Specialization)	2 years	Semester	Graduation with minimum of 2 years of work experience.

### Specialization

MBA (Select any Two)

Executive MBA (Select any One)

Marketing Management, Human Resource Management, Finance Management, International Business Management , Retail Management, Information Technology Management, Operations Management , Project Management, Rural Management , Hospitality & Tourism Management, Hospital Management, Fashion Designing.

### Lateral Entry

Lateral Entry to MBA 3rd Semester on the basis of PGDBM from an AICTE approved Institution or a recognized University

Duration : 1 Year

## Masters in Business Administration (MBA) 1<sup>st</sup> Year Compulsory subjects for all specialization

SEMESTER	SUBJECT CODE	SUBJECT NAME	TYPE	REMARKS
1st SEM	MBA101	Principles and Practices of Management	Theory	Compulsory
1st SEM	MBA102	Quantitative Methods	Theory	Compulsory
1st SEM	MBA103	Managerial Economics	Theory	Compulsory
1st SEM	MBA104	Accounting for Management	Theory	Compulsory
1st SEM	MBA105	Information Technology for Managers	Theory	Compulsory
1st SEM	MBA106	Business Communication	Theory	Compulsory
1st SEM	MBA107	Business and Legal Environment	Theory	Compulsory
1st SEM	MBA108	IT for Managers - Lab	Practical	Compulsory
2nd SEM	MBA201	Management of Technology, Innovation and Change	Theory	Compulsory
2nd SEM	MBA202	Financial Management	Theory	Compulsory
2nd SEM	MBA203	Marketing Management	Theory	Compulsory
2nd SEM	MBA204	Business Research	Theory	Compulsory
2nd SEM	MBA205	Operations Management	Theory	Compulsory
2nd SEM	MBA206	Human Resources Management	Theory	Compulsory
2nd SEM	MBA207	e-Business	Theory	Compulsory
2nd SEM	MBA208	Managerial skill Development	Theory	Compulsory

## 2<sup>st</sup> Year Compulsory subjects for all specialization

SEMESTER	SUBJECT CODE	SUBJECT NAME	TYPE	REMARKS
3rd SEM	MBA301	Management of International Business	Theory	Compulsory
3rd SEM	MBA302	Entrepreneurship and Small Business Management	Theory	Compulsory
3rd SEM	MBA303	Summer Training Report	Project/Viva	Compulsory

# MBA Specialisation Syllabus

Select any two specialisation for MBA ( 2 Years) and one specialisation for Executive MBA ( 1 Year)

## MBA in Marketing Management

SEMESTER	SUBJECT CODE	SUBJECT NAME	TYPE	REMARKS
3rd SEM	MBMS1	Sales and Distribution Management	Theory	Compulsory
3rd SEM	MBMS2	International Marketing	Theory	Compulsory
3rd SEM	MBMS3	Services Marketing	Theory	Compulsory
4th SEM	MBA401	Strategic Management	Theory	Compulsory
4th SEM	MBA402	Corporate Social Responsibility, Human Values & Ethics	Theory	Compulsory
4th SEM	MBMS4	Retail Management	Theory	Compulsory
4th SEM	MBMS5	Product & Brand Management	Theory	Compulsory

## MBA in Human Resource Management

SEMESTER	SUBJECT CODE	SUBJECT NAME	TYPE	REMARKS
3rd SEM	MBHS1	Compensation Management	Theory	Compulsory
3rd SEM	MBHS2	Industrial Relations and Labour Laws	Theory	Compulsory
3rd SEM	MBHS3	Training and Developments Systems and Practices	Theory	Compulsory
4th SEM	MBA401	Strategic Management	Theory	Compulsory
4th SEM	MBA402	Corporate Social Responsibility, Human Values & Ethics	Theory	Compulsory
4th SEM	MBHS4	Performance Management	Theory	Compulsory
4th SEM	MBHS5	Organization change & development	Theory	Compulsory

## MBA in Finance Management

SEMESTER	SUBJECT CODE	SUBJECT NAME	TYPE	REMARKS
3rd SEM	MBFS1	International Financial Management	Theory	Compulsory
3rd SEM	MBFS2	Financial Markets and Institutions	Theory	Compulsory
3rd SEM	MBFS3	Security Analysis and Investment Management	Theory	Compulsory
4th SEM	MBA401	Strategic Management	Theory	Compulsory
4th SEM	MBA402	Corporate Social Responsibility, Human Values & Ethics	Theory	Compulsory
4th SEM	MBFS4	Corporate Tax Planning	Theory	Compulsory
4th SEM	MBFS5	Financial Institutes & Financial Markets	Theory	Compulsory

## MBA in International Business Management

SEMESTER	SUBJECT CODE	SUBJECT NAME	TYPE	REMARKS
3rd SEM	MBIB1	International Business Environment	Theory	Compulsory
3rd SEM	MBIB2	Export, Import Policies, Procedures, and Documentation	Theory	Compulsory
3rd SEM	MBIB3	WTO and Intellectual Property Rights	Theory	Compulsory
4th SEM	MBA401	Strategic Management	Theory	Compulsory
4th SEM	MBA402	Corporate Social Responsibility, Human Values & Ethics	Theory	Compulsory
4th SEM	MBIB4	International Economics	Theory	Compulsory
4th SEM	MBIB5	International Marketing	Theory	Compulsory

## MBA in International Retail Management

SEMESTER	SUBJECT CODE	SUBJECT NAME	TYPE	REMARKS
3rd SEM	MBARM1	Retail Operations Management	Theory	Compulsory
3rd SEM	MBARM2	Logistic and Sales Promotion	Theory	Compulsory
3rd SEM	MBARM3	Retail Planning	Theory	Compulsory
4th SEM	MBA401	Strategic Management	Theory	Compulsory
4th SEM	MBA402	Corporate Social Responsibility, Human Values & Ethics	Theory	Compulsory
4th SEM	MBARM4	International Retailing	Theory	Compulsory
4th SEM	MBARM5	Retail Sales Technique & Promotions	Theory	Compulsory

## MBA in Information Technology Management

SEMESTER	SUBJECT CODE	SUBJECT NAME	TYPE	REMARKS
3rd SEM	MBIT1	Systems Analysis and Design	Theory	Compulsory
3rd SEM	MBIT2	Enterprise Resource Planning	Theory	Compulsory
3rd SEM	MBIT3	Network Applications and Management	Theory	Compulsory
4th SEM	MBA401	Strategic Management	Theory	Compulsory
4th SEM	MBA402	Corporate Social Responsibility, Human Values & Ethics	Theory	Compulsory
4th SEM	MBIT4	Database Management Systems	Theory	Compulsory
4th SEM	MBIT5	Information Security And Cyber Law	Theory	Compulsory

## MBA in Operation Management

EMESTER	SUBJECT CODE	SUBJECT NAME	TYPE	REMARKS
3rd SEM	MBOM1	Total Quality Management	Theory	Compulsory
3rd SEM	MBOM2	Project Operations and Management	Theory	Compulsory
3rd SEM	MBOM3	Supply Chain Management	Theory	Compulsory
4th SEM	MBA401	Strategic Management	Theory	Compulsory
4th SEM	MBA402	Corporate Social Responsibility, Human Values & Ethics	Theory	Compulsory
4th SEM	MBOM4	Materials Management	Theory	Compulsory
4th SEM	MBOM5	Operations Management	Theory	Compulsory

## MBA in Project Management

SEMESTER	SUBJECT CODE	SUBJECT NAME	TYPE	REMARKS
3rd SEM	MBPM1	Project Planning and Execution	Theory	Compulsory
3rd SEM	MBPM2	Project Formulation and Appraisal	Theory	Compulsory
3rd SEM	MBPM3	Project Support System	Theory	Compulsory
4th SEM	MBA401	Strategic Management	Theory	Compulsory
4th SEM	MBA402	Corporate Social Responsibility, Human Values & Ethics	Theory	Compulsory
4th SEM	MBPM4	Project Risk Management	Theory	Compulsory
4th SEM	MBPM5	Project Control System	Theory	Compulsory

## MBA in Rural Management

SEMESTER	SUBJECT CODE	SUBJECT NAME	TYPE	REMARKS
3rd SEM	MBRM1	Rural Economic Environment of Business	Theory	Compulsory
3rd SEM	MBRM2	Participatory Appraisal and Project Formulation	Theory	Compulsory
3rd SEM	MBRM3	Development funding	Theory	Compulsory
4th SEM	MBA401	Strategic Management	Theory	Compulsory
4th SEM	MBA402	Corporate Social Responsibility, Human Values & Ethics	Theory	Compulsory
4th SEM	MBRM4	Micro Credit Management	Theory	Compulsory
4th SEM	MBRM5	Project Monitoring and Evaluation	Theory	Compulsory

## MBA in Hotel Management

SEMESTER	SUBJECT CODE	SUBJECT NAME	TYPE	REMARKS
3rd SEM	MBAHMT1	Hotel Housekeeping	Theory	Compulsory
3rd SEM	MBAHMT2	Food and Beverage Management	Theory	Compulsory
3rd SEM	MBAHMT3	Front Office Management	Theory	Compulsory
4th SEM	MBA401	Strategic Management	Theory	Compulsory
4th SEM	MBA402	Corporate Social Responsibility, Human Values & Ethics	Theory	Compulsory
4th SEM	MBAHMT4	Accommodation Management	Theory	Compulsory
4th SEM	MBAHMT5	Food & Beverage Service	Theory	Compulsory

## MBA in Hospital Management

SEMESTER	SUBJECT CODE	SUBJECT NAME	TYPE	REMARKS
3rd SEM	MBHM1	Patient Care Planning and Management	Theory	Compulsory
3rd SEM	MBHM2	Legal Aspects of Healthcare	Theory	Compulsory
3rd SEM	MBHM3	Healthcare Marketing and Public Relations	Theory	Compulsory
4th SEM	MBA401	Strategic Management	Theory	Compulsory
4th SEM	MBA402	Corporate Social Responsibility, Human Values & Ethics	Theory	Compulsory
4th SEM	MBHM4	Hospital Administration	Theory	Compulsory
4th SEM	MBHM5	Health Insurance and Managed Care	Theory	Compulsory

## MBA in Fashion Designing Management

SEMESTER	SUBJECT CODE	SUBJECT NAME	TYPE	REMARKS
3rd SEM	MBID 1	Residential Interior Space Design	Theory	Compulsory
3rd SEM	MBID 2	Commercial Interior Space Design	Theory	Compulsory
3rd SEM	MBID 3	Building Materials-1	Theory	Compulsory
4th SEM	MBA401	Strategic Management	Theory	Compulsory
4th SEM	MBA402	Corporate Social Responsibility, Human Values & Ethics	Theory	Compulsory
4th SEM	MBFD4	Advance Garment Construction Technique	Theory	Compulsory
4th SEM	MBFD5	Garment Production & Technique	Theory	Compulsory

## Faculty of Engineering and Technology Courses

Sr.No	Course	Duration	Mode	Eligibility
1	M. Tech. CS/ IT	2 years	Sem	B. Tech. /B.E in Relevant Subject
2	B. Tech. CS / IT	4 years	Sem	10+2 with Physics and Mathematics as compulsory subjects along with one of the Chemistry/ Biotechnology/ Biology/ Technical Vocational subject.
3	B. Tech. CS / IT (Lateral Entry)	3 years	Sem	Polytechnic Diploma in appropriate branch of Engineering/ Technology. OR B. Sc. Degree from a recognized University as defined by UGC, and passed XII standard with mathematics as a subject. Provided that in case of students belonging to B. Sc. Stream, shall clear the subjects of Engineering Graphics/ Engineering Drawing and Engineering Mechanics of the first year Engineering program along with the second year subjects.
4	Master in Computer Application (MCA)	3 years	Sem	Graduation from Recognized University
5	Master in Computer Application (MCA) Lateral Entry to 3rd Semester	2 years	Sem	3 Yr BCA/ PGDCA/ DOEACC (A Level)
6	Master in Computer Application (MCA) Lateral Entry to 5th Semester	1 Year	Sem	M. Sc. - IT/ M. Sc. CS/ DOEACC (B Or C Level)
7	Master of Science (M. Sc. Computer Science)	2 years	Sem	Graduation
8	Master of Science (M. Sc. Computer Science) Lateral Entry to 3rd Semester	1 Year	Sem	BCA/B. Sc. (IT or CS) And PGDCA/PGDIT/PGDCS from Recognized University
9	Bachelor of Computer Application (BCA)	3 years	Sem	10+2
10	Bachelor of Science (B. Sc. Computer Science)	3 years	Sem	10+2
11	Bachelor of Science (B. Sc. Information Technology)	3 years	Sem	10+2

## M.Tech in Computer Science

Sub specialization for M. Tech. – Computer Science

Multimedia Technology, VLSI Design, Object Oriented Software Development.

## M.Tech in Computer Science ( Multimedia)

SEMESTER	SUBJECT CODE	SUBJECT NAME	TYPE	REMARKS
1st SEM	MCMT101	Data Structures and Algorithms	Theory	Compulsory
1st SEM	MCMT102	Computer Graphics	Theory	Compulsory
1st SEM	MCMT103	Multimedia Security	Theory	Compulsory
1st SEM	MCMT104	Fundamentals of creative Multimedia	Theory	Compulsory
1st SEM	<b>MCMT105</b>	<b>Elective – I (Choose Any One)</b>	Theory	
1st SEM	MCMT105A	Computer Modeling and Animation	Theory	Elective
1st SEM	MCMT105B	Virtual Reality	Theory	Elective
1st SEM	MCMT106	Data Structures and Algorithms lab	Practical	Compulsory
1st SEM	MCMT107	Computer Graphics Lab	Practical	Compulsory
2nd SEM	MCMT201	Object Oriented Software Engineering	Theory	Compulsory
2nd SEM	MCMT202	Knowledge Management	Theory	Compulsory
2nd SEM	MCMT203	Electronic Commerce	Theory	Compulsory
2nd SEM	MCMT204	Digital Audio and Computer music	Theory	Compulsory
2nd SEM	<b>MCMT205</b>	<b>Elective – II (Choose Any One)</b>	Theory	
2nd SEM	MCMT205A	Artificial Intelligence Planning	Theory	Elective
2nd SEM	MCMT205B	Cloud Computing	Theory	Elective
2nd SEM	MCMT206	Object Oriented Software Engineering lab	Practical	Compulsory
2nd SEM	MCMT207	Multimedia Lab	Practical	Compulsory
3rd SEM	MCMT301	Web Design Technology	Theory	Compulsory
3rd SEM	MCMT302	Communication & Research Methodology	Theory	Compulsory
3rd SEM	<b>MCMT303</b>	<b>Elective – III (Choose Any One)</b>	Theory	
3rd SEM	MCMT303A	Multimedia Programming	Theory	Elective
3rd SEM	MCMT303B	GUI Design and Windows Programming	Theory	Elective
3rd SEM	MCMT304	Preliminary Work on Dissertation	Project/Viva	Compulsory
3rd SEM	MCMT305	Seminar Based on Dissertation	Project/Viva	Compulsory
4th SEM	MCMT401	Dissertation + seminar	Project/Viva	Compulsory

## M.Tech in Computer Science (VLSI Design)

SEMESTER	SUBJECT CODE	SUBJECT NAME	TYPE	REMARKS
1st SEM	MCVLS101	CMOS Analog Circuit Design	Theory	Compulsory
1st SEM	MCVLS102	Hardware Descriptive language	Theory	Compulsory
1st SEM	MCVLS103	VLSI Technology	Theory	Compulsory
1st SEM	MCVLS104	Advanced Digital System Design	Theory	Compulsory
1st SEM	MCVLS105	Programmable Logic Controller	Theory	Compulsory
1st SEM	MCVLS106	Lab-I CMOS Circuit Design	Practical	Compulsory
1st SEM	MCVLS107	Lab-II Advanced Digital System Design	Practical	Compulsory
2nd SEM	MCVLS201	Mixed Signal and RF Circuit Design	Theory	Compulsory
2nd SEM	MCVLS202	CMOS Digital circuit Design	Theory	Compulsory
2nd SEM	MCVLS203	Digital Signature Processor	Theory	Compulsory
2nd SEM	MCVLS204	Application Speccific Integrated Circuits	Theory	Compulsory
2nd SEM	<b>MCVLS205</b>	<b>Elective – II (Choose Any One)</b>	Theory	
2nd SEM	MCVLS205A	Neural Network for VLSI	Theory	Elective
2nd SEM	MCVLS205B	VLSI System Testing	Theory	Elective
2nd SEM	MCVLS206	ULSI Technology	Theory	Elective
2nd SEM	MCVLS207	Lab-I CMOS Circuit Design	Project/Viva	Compulsory
2nd SEM	MCVLS208	Lab-II DSP Processor	Project/Viva	Compulsory
3rd SEM	MCVLS301	Digital Control Engineering	Theory	Compulsory
3rd SEM	MCVLS302	Communication & Research Methodology	Theory	Compulsory
3rd SEM	MCVLS303	<b>Elective – III (Choose Any One)</b>	Theory	
3rd SEM	MCVLS303A	Algorithm for VLSI Design Automation	Theory	Elective
3rd SEM	MCVLS303B	Electromagnetic Interference and Compatibility in system Design	Theory	Elective
3rd SEM	MCVLS303C	VLSI signal processing	Theory	Elective
3rd SEM	MCVLS304	Preliminary Work on Dissertation	Project/Viva	Compulsory
3rd SEM	MCVLS305	Seminar Based on Dissertation	Project/Viva	Compulsory
4th SEM	MCVLS401	Dissertation + seminar	Project/Viva	Compulsory

## M.Tech. in Computer Science (Object oriented Software Development)

SEMESTER	SUBJECT CODE	SUBJECT NAME	TYPE	REMARKS
1st SEM	MTOOSD101	Advanced Engineering Mathematics	Theory	Compulsory
1st SEM	MTOOSD102	Object Oriented Analysis And Design Using UML	Theory	Compulsory
1st SEM	MTOOSD103	Advanced Operating System	Theory	Compulsory
1st SEM	MTOOSD104	Internet and Web Technology	Theory	Compulsory
1st SEM	MTOOSD105	Java Programming & Application	Theory	Elective
1st SEM	MTOOSD106	Object Oriented Analysis And Design Using UML Lab	Practical	Compulsory
1st SEM	MTOOSD107	Internet and Web Technology Lab	Practical	Compulsory
2nd SEM	MTOOSD201	Compiler Design	Theory	Compulsory
2nd SEM	MTOOSD202	Object Oriented Software Engineering	Theory	Compulsory
2nd SEM	MTOOSD203	Analysis and Design of Algorithms	Theory	Compulsory
2nd SEM	MTOOSD204	Distributed Operating System	Theory	Compulsory
2nd SEM	MTOOSD205	Design & Development of Cloud Applications	Theory	Elective
2nd SEM	MTOOSD206	Compiler Design Lab	Practical	Compulsory
2nd SEM	MTOOSD207	Object Oriented Software Engineering Lab	Practical	Compulsory
3rd SEM	MTOOSD301	Communication & Research Methodology	Theory	Compulsory
3rd SEM	<b>MTOOSD302</b>	<b>Elective – I</b>	Theory	
3rd SEM	MTOOSD302.1	<b>Advanced Computer Architecture</b>	Theory	Elective
3rd SEM	MTOOSD302.2	AI and Applications	Theory	Elective
3rd SEM	MTOOSD302.3	Digital Securities	Theory	Elective
3rd SEM	MTOOSD302.4	Grid Computing	Theory	Elective
3rd SEM	<b>MTOOSD303</b>	<b>Elective – II</b>	Theory	
3rd SEM	MTOOSD303.1	Information Storage Management	Theory	Elective
3rd SEM	MTOOSD303.2	Advanced Software Project Management	Theory	Elective
3rd SEM	MTOOSD303.3	<b>Data Warehousing and Data Mining</b>	Theory	
3rd SEM	MTOOSD303.4	Geographical Information System	Theory	Elective
3rd SEM	MTOOSD304	Software Testing Lab	Practical	Compulsory
3rd SEM	MTOOSD305	Current Topic Seminar	Seminar	Compulsory
3rd SEM	MTOOSD306	Dissertation Part-I	Project/Viva	Compulsory
4th SEM	MTOOSD401	Dissertation + Seminar	Project/Viva	Compulsory

## B.Tech (1 year)

### 1<sup>st</sup> Year Compulsory subjects for all specialization

SEMESTER	SUBJECT CODE	SUBJECT NAME	TYPE	REMARKS
1st SEM	BT101	Applied Mathematics – I	Theory	Compulsory
1st SEM	BT102	Applied Chemistry -I	Theory	Compulsory
1st SEM	BT103	Applied Physics -I	Theory	Compulsory
1st SEM	BT104	Engineering Graphics	Theory	Compulsory
1st SEM	BT105	Elements of Electrical Engineering	Theory	Compulsory
1st SEM	BT106	Communication Skills -I	Theory	Compulsory
1st SEM	BT107	Applied Chemistry Lab. – I	Practical/Viva	Compulsory
1st SEM	BT108	Applied Physics -Lab-I	Practical/Viva	Compulsory
1st SEM	BT109	Engineering Graphics Lab	Practical/Viva	Compulsory
1st SEM	BT110	Elements of Electrical Engineering Lab	Practical/Viva	Compulsory
1st SEM	BT111	Workshop Practice -I	Practical/Viva	Compulsory
1st SEM	BT112	Computer Lab	Practical/Viva	Compulsory
2nd SEM	BT201	Applied Mathematics-II	Theory	Compulsory
2nd SEM	BT202	Applied Chemistry -II	Theory	Compulsory
2nd SEM	BT203	Applied Physics -II	Theory	Compulsory
2nd SEM	BT204	Engineering Mechanics	Theory	Compulsory
2nd SEM	BT205	Computer Fundamentals & Application	Theory	Compulsory
2nd SEM	BT206	Environmental Studies	Theory	Compulsory
2nd SEM	BT207	Applied Chemistry -II Lab	Practical/Viva	Compulsory
2nd SEM	BT208	Applied Physics -II Lab	Practical/Viva	Compulsory
2nd SEM	BT209	Engineering Mechanics Lab	Practical/Viva	Compulsory
2nd SEM	BT210	Computer Lab	Practical/Viva	Compulsory
2nd SEM	BT211	Workshop Practice -II	Practical/Viva	Compulsory

# SYLLABUS ENGINEERING AND IT COURSES

## B.Tech. in Information Technology

SEMESTER	SUBJECT CODE	SUBJECT NAME	TYPE	REMARKS
3rd SEM	BTIT301	Object Oriented Systems Theory	Theory	Compulsory
3rd SEM	BTIT302	Object Oriented Sys-Lab	Practical/Viva	Compulsory
3rd SEM	BTIT303	Digital Electronics	Theory	Compulsory
3rd SEM	BTIT304	Digital Electronics-Lab	Practical/Viva	Compulsory
3rd SEM	BTIT305	Mathematics III	Theory	Compulsory
3rd SEM	BTIT306	Engg. Mechanics	Theory	Compulsory
3rd SEM	BTIT307	Data Structures	Theory	Compulsory
3rd SEM	BTIT308	Data Structures-Lab	Practical/Viva	Compulsory
4th SEM	BTIT401	Computer Organisation	Theory	Compulsory
4th SEM	BTIT402	Principal of Programming Language PPL	Theory	Compulsory
4th SEM	BTIT403	Software Engineering	Theory	Compulsory
4th SEM	BTIT404	Software Engineering-Lab	Practical/Viva	Compulsory
4th SEM	BTIT405	Industrial Economics	Theory	Compulsory
4th SEM	BTIT406	Discrete Mathematics	Theory	Compulsory
5th SEM	BTIT501	Microprocessors	Theory	Compulsory
5th SEM	BTIT502	Microprocessors-Lab	Practical/Viva	Compulsory
5th SEM	BTIT503	Theory of computation	Theory	Compulsory
5th SEM	BTIT504	Design & Analysis of Algorithm	Theory	Compulsory
5th SEM	BTIT505	DBMS	Theory	Compulsory
5th SEM	BTIT506	DBMS-Lab	Practical/Viva	Compulsory
5th SEM	BTIT507	Operating System	Theory	Compulsory
5th SEM	BTIT508	Operating System-Lab	Practical/Viva	Compulsory
6th SEM	BTIT601	Computer Networks	Theory	Compulsory
6th SEM	BTIT602	Computer Networks-Lab	Practical/Viva	Compulsory
6th SEM	BTIT603	Internet Technology	Theory	Compulsory
6th SEM	BTIT604	Internet Technology-Lab	Practical/Viva	Compulsory
6th SEM	BTIT605	e-Commerce	Theory	Compulsory
6th SEM	BTIT606	Data Communication	Theory	Compulsory
6th SEM	BTIT607	Signal & Systems	Theory	Compulsory
7th SEM	BTIT701	Digital Image Processing	Theory	Compulsory
7th SEM	BTIT702	Digital Image Processing-Lab	Practical/Viva	Compulsory
7th SEM	BTIT703	Information Security and Cyber Laws	Theory	Compulsory
7th SEM	BTIT704	Digital Signal Processing	Theory	Compulsory
7th SEM	BTIT705	Industrial Management	Theory	Compulsory
7th SEM	BTIT706	Project – I	Project	Compulsory
7th SEM	BTIT707	Seminar	Project/Seminar	Compulsory
8th SEM	BTIT801	Information Systems	Theory	Compulsory
8th SEM	BTIT802	Operations Research	Theory	Compulsory
8th SEM	BTIT803	Graph Theory	Theory	Compulsory
8th SEM	BTIT804	Probability and Statistics	Theory	Compulsory
8th SEM	BTIT805	Project II	Project	Compulsory

## B.Tech. in Computer Science

SEMESTER	SUBJECT CODE	SUBJECT NAME	TYPE	REMARKS
3rd SEM	BTCS301	Mathematics-III	Theory	Compulsory
3rd SEM	BTCS302	Basic Electronics	Theory	Compulsory
3rd SEM	BTCS303	Network Analysis and Synthesis	Theory	Compulsory
3rd SEM	BTCS304	Problem Solving and Logic Building using C	Theory	Compulsory
3rd SEM	BTCS305	Computer Fundamentals	Theory	Compulsory
3rd SEM	BTCS306	Digital Electronics & Logic Design	Theory	Compulsory
3rd SEM	BTCS307	Basic Electronics Lab	Practical/Viva	Compulsory
3rd SEM	BTCS308	Programming with C Lab	Practical/Viva	Compulsory
3rd SEM	BTCS309	Digital Electronics & Logic Design Lab	Practical/Viva	Compulsory
3rd SEM	BTCS310	Web Technology Lab (HTML/DHTML)	Practical/Viva	Compulsory
4th SEM	BTCS401	Computational Mathematics	Theory	Compulsory
4th SEM	BTCS402	Discrete Structures	Theory	Compulsory
4th SEM	BTCS403	Data Structures	Theory	Compulsory
4th SEM	BTCS404	Computer Systems Architecture	Theory	Compulsory
4th SEM	BTCS405	Object Oriented Concepts & Programming using C++	Theory	Compulsory
4th SEM	BTCS406	Data Structures Lab	Practical/Viva	Compulsory
4th SEM	BTCS407	Computer Hardware Simulation Lab	Practical/Viva	Compulsory
4th SEM	BTCS408	Object Oriented concepts Programming using C++ Lab	Practical/Viva	Compulsory
4th SEM	BTCS409	Software Technology Lab - 1	Practical/Viva	Compulsory
5th SEM	BTCS501	Microprocessor & Interfaces	Theory	Compulsory
5th SEM	BTCS502	Analysis and Design of Algorithms	Theory	Compulsory
5th SEM	BTCS503	Operating System	Theory	Compulsory
5th SEM	BTCS504	Theory of Computation	Theory	Compulsory
5th SEM	BTCS505	Principles of Communication System	Theory	Compulsory
5th SEM	BTCS506	Database Management System	Theory	Compulsory
5th SEM	BTCS507	Principles of Communication System lab	Practical/Viva	Compulsory
5th SEM	BTCS508	Database Management System Lab	Practical/Viva	Compulsory
5th SEM	BTCS509	Software Technology Lab – 2 (Java)	Practical/Viva	Compulsory
5th SEM	BTCS510	Microprocessor & Interfaces Lab	Practical/Viva	Compulsory
5th SEM	BTCS511	Personality Development	Practical/Viva	Compulsory
6th SEM	BTCS601	Computer Networks	Theory	Compulsory
6th SEM	BTCS602	Compiler Design	Theory	Compulsory
6th SEM	BTCS603	UNIX and SHELL Programming	Theory	Compulsory
6th SEM	BTCS604	Software Engineering	Theory	Compulsory
6th SEM	BTCS605	Computer Graphics	Theory	Compulsory

## B.Tech. in Computer Science

SEMESTER	SUBJECT CODE	SUBJECT NAME	TYPE	REMARKS
	<b>BTCS606</b>	<b>ELECTIVE - I</b>		
6th SEM	BTCS606-A	Digital Signal Processing	Theory	
6th SEM	BTCS606-B	Advanced Microprocessors & Micro Controllers	Theory	Elective
6th SEM	BTCS606-C	Multimedia & Virtual Reality	Theory	Elective
6th SEM	BTCS606-D	Management Information Systems	Theory	Elective
6th SEM	BTCS606-E	Inter-Networking with TCP/IP	Theory	Elective
6th SEM	BTCS606-F	Advanced Operating System	Theory	Elective
6th SEM	BTCS606-G	Advanced Data Base Systems.	Theory	Elective
6th SEM	BTCS607	Computer Networks Lab	Practical/Viva	Compulsory
6th SEM	BTCS608	Computer Graphics Lab	Practical/Viva	Compulsory
6th SEM	BTCS609	Software Technology Lab - 3	Practical/Viva	Compulsory
6th SEM	BTCS610	UNIX and SHELL Programming Lab	Practical/Viva	Compulsory
6th SEM	BTCS611	Managerial Skills	Practical/Viva	Compulsory
7th SEM	BTCS701	Internet & Multimedia Technology	Theory	Compulsory
7th SEM	BTCS702	Parallel Processor & Computing	Theory	Compulsory
7th SEM	BTCS703	Network Programming	Theory	Compulsory
7th SEM	BTCS704	Operations Research	Theory	Compulsory
7th SEM	BTCS705	Minor Project	Project/Viva	Compulsory
7th SEM	<b>BTCS706</b>	<b>Elective -II</b>	Theory	
7th SEM	BTCS706-A	Digital Image Processing	Theory	Elective
7th SEM	BTCS706-B	Advanced Computer Architecture	Theory	Elective
7th SEM	BTCS706-C	Cellular & Mobile Computing	Theory	Elective
7th SEM	BTCS706-D	Enterprise Resource Planning	Theory	Elective
7th SEM	BTCS706-E	Cryptography & Network Security	Theory	Elective
7th SEM	BTCS706-F	OODBMS	Theory	Compulsory
7th SEM	BTCS707	Soft Computing Lab	Practical/Viva	Compulsory
7th SEM	BTCS708	Network Preprogramming Lab	Practical/Viva	Compulsory
7th SEM	BTCS709	Software Technology Lab - 4	Practical/Viva	Compulsory
7th SEM	BTCS710	Innovative & Entrepreneurial Skills	Practical/Viva	Compulsory
7th SEM	BTCS711	Practical Training Evaluation ( To be completed after VI Sem. and before the commencement of VII Sem )	Practical/Viva	Compulsory

## B.Tech. in Computer Science

SEMESTER	SUBJECT CODE	SUBJECT NAME	TYPE	REMARKS
8th SEM	BTCS801	Artificial Intelligence & Expert Systems	Theory	Compulsory
8th SEM	BTCS802	Data Mining & Warehousing	Theory	Compulsory
8th SEM	BTCS803	Software Project Management	Theory	Compulsory
8th SEM	<b>BTCS804</b>	<b>Elective-III</b>	Theory	
8th SEM	BTCS804-A	Neural Network & Fuzzy Logic	Theory	Elective
8th SEM	BTCS804-B	Distributed Parallel Processing	Theory	Elective
8th SEM	BTCS804-C	Distributed Multimedia	Theory	Elective
8th SEM	BTCS804-D	Decision Support System	Theory	Elective
8th SEM	BTCS804-E	Wireless Networks	Theory	Elective
8th SEM	BTCS804-F	Real Time Systems	Theory	Elective
8th SEM	BTCS804-G	Pattern Recognition	Theory	Elective
8th SEM	BTCS804-H	Cyber Crime & Laws	Theory	Elective
8th SEM	<b>BTCS805</b>	<b>Elective-IV</b>	Theory	
8th SEM	BTCS805 A	Bioinformatics	Theory	Elective
8th SEM	BTCS805 B	Software Technology	Theory	Elective
8th SEM	BTCS806	Artificial Intelligence & Expert Systems Lab	Practical/Viva	Elective
8th SEM	BTCS807	Network Security Lab	Practical/Viva	Elective
8th SEM	BTCS808	Software Technology Lab-5	Practical/Viva	Elective
8th SEM	BTCS809	Major Project	Practical/Viva	Elective
8th SEM	BTCS810	Report Writing and Seminar	Practical/Viva	Elective

## Masters in Computer Application (MCA)

SEMESTER	SUBJECT CODE	SUBJECT NAME	TYPE	REMARKS
1st SEM	MCA 101	Fundamentals of IT	Theory	Compulsory
1st SEM	MCA 102	Programming in C	Theory	Compulsory
1st SEM	MCA 103	Mathematical Foundation of Computer Sc.	Theory	Compulsory
1st SEM	MCA 104	Computer Organization	Theory	Compulsory
1st SEM	MCA 105	Principles and Practices of Management	Theory	Compulsory
1st SEM	MCA 106	Fundamentals of IT Lab.	Practical/Viva	Compulsory
1st SEM	MCA 107	Programming in C Lab	Practical/Viva	Compulsory
1st SEM	MCA 108	Computer Organization Lab.	Practical/Viva	Compulsory
2nd SEM	MCA 201	Data and File Structures	Theory	Compulsory
2nd SEM	MCA 202	Object Oriented Programming in C++	Theory	Compulsory
2nd SEM	MCA 203	Operating Systems	Theory	Compulsory
2nd SEM	MCA 204	Database Management Systems	Theory	Compulsory
2nd SEM	MCA 205	Software Engineering	Theory	Compulsory
2nd SEM	MCA 206	Data and File Structures Lab	Practical/Viva	Compulsory
2nd SEM	MCA 207	Object Oriented Programming in C++ Lab	Practical/Viva	Compulsory
2nd SEM	MCA 208	Database Management Systems Lab	Practical/Viva	Compulsory
3rd SEM	MCA 301	Theory of Computation	Theory	Compulsory
3rd SEM	MCA 302	Computer Graphics	Theory	Compulsory
3rd SEM	MCA 303	Java Programming	Theory	Compulsory
3rd SEM	MCA 304	Data Communications and Networking	Theory	Compulsory
3rd SEM	MCA 305	Data Warehousing & Data Mining	Theory	Compulsory
3rd SEM	MCA 306	Computer Graphics Lab	Practical/Viva	Compulsory
3rd SEM	MCA 307	Java Programming Lab	Practical/Viva	Compulsory
3rd SEM	MCA 308	Data Warehousing & Data Mining Lab	Practical/Viva	Compulsory
4th SEM	MCA 401	Design and Analysis of Algorithms	Theory	Compulsory
4th SEM	MCA 402	C# Programming	Theory	Compulsory
4th SEM	MCA 403	Advanced Computer Networks	Theory	Compulsory
4th SEM	MCA 404	Object Oriented Analysis and Design	Theory	Compulsory
4th SEM	MCA 405	Web Technologies	Theory	Compulsory
4th SEM	MCA 406	C# Programming Lab	Practical/Viva	Compulsory
4th SEM	MCA 407	Object Oriented Analysis and Design Lab	Practical/Viva	Compulsory
4th SEM	MCA 408	Web Technologies Lab	Practical/Viva	Compulsory
5th SEM	MCA 501	Linux Programming	Theory	Compulsory
5th SEM	MCA 502	Software Testing	Theory	Compulsory
5th SEM	MCA 503	Enterprise Computing with Java	Theory	Compulsory
5th SEM	MCA 504	Advanced Database Management Systems	Theory	Compulsory
5th SEM	MCA 505	Software Quality Management	Theory	Compulsory
5th SEM	MCA 506	Linux Programming Lab	Practical/Viva	Compulsory
5th SEM	MCA 507	Software Testing Lab	Practical/Viva	Compulsory
5th SEM	MCA 508	Enterprise Computing with Java Lab	Practical/Viva	Compulsory
6th SEM	MCA 601	Dissertation	Project/Viva	Compulsory
6th SEM	MCA 602	(Seminar and Progress Report)	(Seminar and Progress Report)	Compulsory

## Masters in Computer Science (M.Sc.CS)

SEMESTER	SUBJECT CODE	SUBJECT NAME	TYPE	REMARKS
1st SEM	MSCS 101	Fundamentals of IT	Theory	Compulsory
1st SEM	MSCS 102	Programming in C	Theory	Compulsory
1st SEM	MSCS 103	Computer Organization	Theory	Compulsory
1st SEM	MSCS 104	Principals & Practices of Management	Theory	Compulsory
1st SEM	MSCS 105	Fundamentals of IT Lab.	Practical	Compulsory
1st SEM	MSCS 106	Programming in C Lab	Practical	Compulsory
2nd SEM	MSCS201	Data Structures and Algorithm	Theory	Compulsory
2nd SEM	MSCS202	Programming with ASP.Net	Theory	Compulsory
2nd SEM	MSCS203	Operating Systems	Theory	Compulsory
2nd SEM	<b>MSCS204</b>	<b>ELECTIVES (Choose Any One)</b>	Theory	Elective
2nd SEM	MSCS204A	Computer Architecture & Microprocessor	Theory	Elective
2nd SEM	MSCS204B	Software Engineering	Theory	Elective
2nd SEM	MSCS204C	Object Oriented Programming in C++	Theory	Elective
2nd SEM	MSCS 205	Data and File Structures Lab	Practical	Compulsory
2nd SEM	MSCS 206	Programming with ASP.Net Lab	Practical	Compulsory
3rd SEM	MSCS301	Linux & Web server Administration	Theory	Compulsory
3rd SEM	MSCS302	Java Programming	Theory	Compulsory
3rd SEM	MSCS303	Information Security	Theory	Compulsory
3rd SEM	<b>MSCS304</b>	<b>Elective (Choose Any One)</b>	Theory	Elective
3rd SEM	MSCS304A	Advanced Networking Concepts	Theory	Elective
3rd SEM	MSCS304B	Software Metrics & Project Management	Theory	Elective
3rd SEM	MSCS304C	Distributed Database Concepts	Theory	Elective
3rd SEM	MSCS305	Linux & Web server Administration- Lab	Practical	Compulsory
3rd SEM	MSCS306	Java Programming Lab	Practical	Compulsory
4th SEM	MSCS401	Industrial Project & Viva Voce	Project/Viva	Compulsory

## Masters in Information Technology (M.Sc.IT)

SEMESTER	SUBJECT CODE	SUBJECT NAME	TYPE	REMARKS
1st SEM	MSCS 101	Fundamentals of IT	Theory	Compulsory
1st SEM	MSCS 102	Programming in C	Theory	Compulsory
1st SEM	MSCS 103	Computer Organization	Theory	Compulsory
1st SEM	MSCS 104	Principals & Practices of Management	Theory	Compulsory
1st SEM	MSCS 105	Fundamentals of IT Lab.	Practical	Compulsory
1st SEM	MSCS 106	Programming in C Lab	Practical	Compulsory
2nd SEM	MSCS201	Data Structures and Algorithm	Theory	Compulsory
2nd SEM	MSCS202	Programming with ASP.Net	Theory	Compulsory
2nd SEM	MSCS203	Operating Systems	Theory	Compulsory
2nd SEM	<b>MSCS204</b>	<b>ELECTIVES (Choose Any One)</b>	Theory	Elective
2nd SEM	MSCS204A	Computer Architecture & Microprocessor	Theory	Elective
2nd SEM	MSCS204B	Software Engineering	Theory	Elective
2nd SEM	MSCS204C	Object Oriented Programming in C++	Theory	Elective
2nd SEM	MSCS 205	Data and File Structures Lab	Practical	Compulsory
2nd SEM	MSCS 206	Programming with ASP.Net Lab	Practical	Compulsory
3rd SEM	MSCS301	Linux & Web server Administration	Theory	Compulsory
3rd SEM	MSCS302	Java Programming	Theory	Compulsory
3rd SEM	MSCS303	Information Security	Theory	Compulsory
3rd SEM	<b>MSCS304</b>	<b>Elective (Choose Any One)</b>	Theory	Elective
3rd SEM	MSCS304A	Advanced Networking Concepts	Theory	Elective
3rd SEM	MSCS304B	Software Metrics & Project Management	Theory	Elective
3rd SEM	MSCS304C	Distributed Database Concepts	Theory	Elective
3rd SEM	MSCS305	Linux & Web server Administration- Lab	Practical	Compulsory
3rd SEM	MSCS306	Java Programming Lab	Practical	Compulsory
4th SEM	MSCS401	Industrial Project & Viva Voce	Project/Viva	Compulsory

# APPLICATION & ADMISSION PROCESS

## APPLICATION PROCESS

- To apply for the courses at IRTM Institute, you need to purchase application form online or collect a hard copy from institute by paying application fee of Rs.1000/-
- Application fee Rs.1000/- will be refunded if the candidate takes the admission for the course.
- The application form should be duly filled out completely.
- Incomplete forms shall be rejected.
- Please do not send original documents/mark sheets along with the application form.
- You are required to submit attested photocopies only.

### Admissions Office:

307, Orion Business Park, Next  
to Cine Wonder Mall,  
Kapurbawdi, Thane - 400 607.

E-mail: [admissions@irtm.in](mailto:admissions@irtm.in)

“The total numbers of seats for all of these programs are limited. Admissions will be provided on basis only to those who meet the eligibility criteria.”

- You also need to send the scanned copies of your educational qualifications to following e-mail [admissions@irtm.in](mailto:admissions@irtm.in)
- Shortlisted candidates will be appearing for screening test followed with personal interview.
- The interviews will be conducted by industry professionals to ensure quality of the candidates.

## ADMISSION PROCESS

The duly filled application form with attested copies of all relevant mark sheets should be submitted by the stipulated date at reception.

### Registration:

The candidates seeking admission in IRTM Courses will have to deposit one-time registration fees of Rs. 10,000/- (Ten Thousand) to IRTM PRIVATE LTD.

One-time Registration Fees is non-refundable.

**\*Fees will be adjusted in final fees only if the candidate takes the admission for the course.**

Incorrectly filled, incomplete, unsigned and forms received after due date will be rejected.

**IRTM reserves the right to cancel/reject the admission of a candidate under any of the following circumstances:**

- If the fee is not deposited by the stipulated date.
- If the candidate does not join the particular program by the stipulated date even though the fee has been deposited.
- If the candidate fails to furnish the proof of the stipulated minimum qualifications.
- On any other reasonable ground at the discretion of the Director of the institute.

## RIGHT OF ALTERATION/MODIFICATIONS

**IRTM reserves its right to alter or modify the structure of any program as an when required. All the course contents are subject to change as per the requirement of the project.**

## IDENTITY/REGISTRATION CARD

Each candidate will be issued an Identity Card upon his admission.

The candidates are instructed to bring their ID card daily, failing which they are not allowed to enter the premises.

A candidate, who has lost his /her Identity/Registration Card, can obtain a duplicate one from the Centre by paying Rs.250.

## QUALIFYING PERCENTAGE

In order to qualify in an examination for IRTM Courses a candidate must obtain at least 50% marks in screening test.

\* Any part of the prospectus is subject to change without prior notice.

# APPLICATION & ADMISSION PROCESS

## PROJECTS

All the candidates are required to submit the Project report for each project. Evaluation of the projects would be considered & calculated into final CGPA.

## ATTENDANCE

To appear for the examination 90% attendance is mandatory. Absence by candidate for 5 consecutive days, without prior written permission will be treated as discontinuation and would lead to termination of the candidate.

## RULES AND REGULATION

IRTM withholds the right to change, edit all rules and regulations without prior notice.

All the contents shown under training contents are indicative.

The training contents are subject to change as per requirement of the projects without prior notice.

## LAPTOP REQUIREMENTS

Every candidate should possess a laptop of given configuration OR IRTM can make laptop available to the candidate to purchase. LAPTOP configuration prescribed by IRTM.

## FORM FILLING INSTRUCTIONS

1. Application Form can be downloaded from website or can collect in person from college office.
2. Please refer to the instructions before filling up the form.
3. Form must be filled in applicant's own hand writing.
4. Use only BLACK or BLUE Hi-Tec point type pen to fill up the form.
5. Applicants must paste their most recent color photograph (not older than 3 months) in the appropriate place. Do not pin or staple the photograph.
6. Square boxes provided in the forms are only for writing the alphabets in capitals or numbers. The alphabet or number should be written in any one box. Wherever codes are given, fill the boxes in the application form with the appropriate codes
7. Overwriting, striking o or erasing in the form may lead to rejection and should be avoided. Any discrepancy in the statement and/or submission of incomplete forms will lead to rejection of application / cancellation of admission.
8. Keep a photocopy of the filled application for future reference. Application number must be quoted in all future correspondence.
9. Applicants who are required to submit photocopies of marks cards, certificates or any other document must ensure that: The photocopies are taken on A4 size paper only.
10. The print is clear, legible and read able both sides are photocopied if the original marks card is printed on both sides Application number must be written at top right corner of all the photocopies
11. Do not fold the FORM. Do not staple or clip the FORM with any other enclosures, keep it loose. All marks cards and certificates, if any, must be stapled together. Demand Draft/s must be kept loose.
12. The form fees can be remitted through Demand Draft - The DD should be drawn in favour of 'Institute of Research Technology and Management Pvt. Ltd.' payable at Thane. The application number and name should be mentioned on the reverse of the DD.
13. NOTE: Each applicant should submit only one application for a given group
14. Application Test Fees once remitted shall not be refunded under any circumstances.



**IRTM Pvt. Ltd.**

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