

MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR

(A Govt. Aided UGC Autonomous Institute Affiliated to RGPV, Bhopal)

Department of Mathematics & Computing

Scheme of Examination

Course Structure : B. Tech in Mathematics & Computing

(For batches admitted in Academic Session 2020-21 Onwards)

SEMESTER I	SEMESTER II	SEMESTER III	SEMESTER IV	SEMESTER V	SEMESTER VI	SEMESTER VII	SEMESTER VIII
Basic Computer Engineering	Digital Logic Design	Simulation and Modeling	Advanced Algebra and Its Application	Ethics, Economics, Entrepreneurship & Management	Artificial Intelligence & Machine Learning	Departmental Elective -3	Departmental Elective -5*
Introduction to Computer Programming	Differential Equations	Discrete Structure	Operating System	Optimization Techniques	Data Mining & Analytics	Departmental Elective -4*	Open Category-4*
Calculus	Computer System Organization	Data Structures	Algorithm Design and Analysis	Theory of Computation	Departmental Elective -1	Open Category-2	Open Category-5*
Energy, Environment, Ecology & Society	Statistical Tool and Techniques	Data Communications	Computer Networks	Database Management System	Departmental Elective -2*	Open Category-3	Internship/Project
Technical Language & Lab.	Object Oriented Programming	Numerical Techniques	Number Theory and Cryptography	Real and Complex Analysis	Open Category-1	Intellectual Property Rights (IPR)	Professional Development ^s
	Computing Lab	Computating Lab	Cyber Security /Forensic	Minor Project-I**	Disaster Management	Departmental lab.	
		Self-learning/ Presentation (SWAYAM/NPTEL/MOOC)# or Interdisciplinary course from other Institutions & platform with credit transfer	Programming in Python	Summer Internship Project-II (Evaluation)	Minor Project-II**	Summer Internship Project-III (04 weeks) (Evaluation)	
		Summer Internship Project-I (Institute Level) (Evaluation)		Self-learning/ Presentation (SWAYAM/NPTEL/ MOOC)#		Creative Problem Solving (Evaluation)	

Compulsory registration for one online course using SWAYAM/NPTEL/ MOOC, evaluation through attendance, assignments and presentation

** The minor project-I may be evaluated by an internal committee for awarding sessional marks.

* All these courses will run through Swayam/NPTEL/MOOC Platform with credit transfer

Evaluation will be based on participation/laurels brought by the students to the institution in national/state level technical and other events during the complete tenure of the UG program (Participation in professional chapters activities , club activities, cultural events, sports, personality development activities , collerative events and technical events.)