

# **Scheme & Structure**

## **Flexible Curriculum**

**(Base on the AICTE Model Curriculum 2018)**

**(w.e.f. Academic Session 2018-19)**

**MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR**

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

**MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR**  
(A Govt. Aided UGC Autonomous NAAC Accredited Institute Affiliated to RGPV, Bhopal)

Date: 02/07/2018

The Flexible Curriculum for Undergraduate Programmes of the institute according to the Guidelines of “AICTE Model Curriculum for Undergraduate Degree Courses in Engineering & Technology-2018” and RGPV, Bhopal has been framed by the Board of Studies of undergraduate disciplines (Engineering & Architecture) and approved by the Academic Council of the institute.

This curriculum is implemented for students admitted in Academic Year 2017-18 & 2018-19, both, with effect from academic session 18-19.

  
(Dr. R.K. Pandit)  
Director

# MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR

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

## Electrical Engineering

### Scheme Structure & Semester-wise credit distribution (under flexible curriculum design)

#### Reference Course Scheme Structure & Semester-wise credit distribution<sup>#</sup>

<sup>#</sup>This is a suggestive structure, departments may adopt it with required variation, as per the need and demand of their discipline/branch

#### General Definition:

L	Lecture
T	Tutorial
P	Practical
HSMC	Humanities and Social Sciences including Management Courses
BSC	Basic Science Courses
ESC	Engineering Science Courses
DC	Departmental Core
DE	Departmental Elective
OC	Open Category
DLC	Departmental Laboratory Courses
MC	Mandatory Course

**MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR**  
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**Definition of Credit:**

1 Hr. Lecture (L) per week	1 credit
1 Hr. Tutorial (T) per week	1 credit
2 Hours Practical(Lab)/week	1 credit

**Range of Credits:**

A student will be eligible to get Under Graduate degree after earning minimum 170 credits. A student will be eligible to get Under Graduate degree with Honours or additional Minor Engineering Specialization, if he/she completes 190 credits. These could be acquired through MOOCs.

**Note:** In partial fulfillment of flexible curriculum design, a mandate provision to earn credits through E-Learning (NPTEL/MOOC etc.) based Departmental Core/Elective (DC/DE) has been introduced. Additionally, to give the students more flexibility to orient themselves as per their interest while retaining the discipline specific knowledge and capabilities, provision for Open Category (OC) Courses have been made.

**MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR**  
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**Proposed Structure of Undergraduate Engineering program (Electrical Engineering)**

S. No.	Category	Suggested Breakup of Credits (Total 160) (as proposed by AICTE)	Component wise credit allotment (To be calculated by the concerned Department) Electrical Engineering	Number of courses
1	Humanities and Social Sciences including Management Courses (HSMC)	12**	12	04
2	Basic Science Courses (BSC)	25**	20	05
3	Engineering Science courses including workshop, drawing, basics of electrical/mechanical/computer etc. (ESC)	24**	21	06
4	Departmental Core Courses (DC)	48**	52	13
5	Departmental Elective Courses relevant to specialization/branch (DE)	18**	20	06
6	Open Category- Electives from other technical and /or emerging subjects (OC)	18**	15	05
7	Project work, seminar and internship in industry or appropriate work place/ academic and research institutions. (DLC/SWAYAM/NPTEL/MOOC)	15**	22	13
8	Mandatory Course (MC)	-	08	03
	<b>Total</b>	<b>160**</b>	<b>170</b>	<b>55</b> <b>(+02 Audit)</b>

**\*\*Minor variation is allowed as per need of the respective disciplines. Please consult the AICTE model curriculum as a standard reference, if needed.**

# MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR

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## Scheme of Examination

**GROUP A: I Semester** For batches admitted in Academic Session 2018-19 Onwards

**B.Tech. I Semester (Electrical Engineering)**

S.No	Subject Code	Category Code	Subject Name	Maximum Marks Allotted					Total Marks	Contact Hours per week			Total Credits
				Theory Slot			Practical Slot			L	T	P	
				End Sem.	Mid Sem Exam.	Quiz/ Assignment	End Sem.	Lab work & Sessional					
1.	100201	BSC-1	Engineering Physics	70	20	10	30	20	150	2	1	2	4
2.	100202	HSMC-1	Energy, Environment, Ecology & Society	70	20	10	-	-	100	3	-	-	3
3.	100203	ESC-1	Basic Computer Engineering	70	20	10	30	20	150	3	-	2	4
4.	100204	ESC-2	Basic Mechanical Engineering	70	20	10	30	20	150	3	-	2	4
5.	100205	ESC-3	Basic Civil Engineering & Mechanics	70	20	10	30	20	150	3	-	2	4
6.	100206	HSMC-2	Language Lab. & Seminars	-	-	-	30	20	50	-	-	4	2
<b>Total</b>				<b>350</b>	<b>100</b>	<b>50</b>	<b>150</b>	<b>100</b>	<b>750</b>	<b>14</b>	<b>1</b>	<b>12</b>	<b>21</b>
NSS/NCC				Qualifier									
Induction programme of first three weeks (MC): Physical activity, Creative Arts, Universal Human Values, Literary, Proficiency Modules, Lectures by Eminent People, Visits to local Areas, Familiarization to Dept./Branch & Innovations													

**GROUP A: (Electrical, Electronics, Computer Science & Engineering, Information Technology, Electronics & Telecommunication)**

**GROUP B: (Civil, Mechanical, Chemical, Biotech, Automobile)**

**01 Theory Period=1 Credit; 02 Practical Periods =1 Credit**

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**MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR**  
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**Scheme of Examination**

**Group A: II Semester** *For batches admitted in Academic Session 2018-19 Onwards*  
**B.Tech. II Semester (Electrical Engineering)**

S.No	Subject Code	Category Code	Subject Name	Maximum Marks Allotted					Total Marks	Contact Hours per week			Total Credits
				Theory Slot			Practical Slot			L	T	P	
				End Sem.	Mid Sem.	Quiz/Assignment	End Sem.	Lab work & Sessional					
1.	100101	BSC-2	Engineering Chemistry	70	20	10	30	20	150	3	-	2	4
2.	100102	BSC-3	Engineering Mathematics-I	70	20	10	-	-	100	3	1	-	4
3.	100103	HSMC-3	Technical English	70	20	10	30	20	150	3	-	2	4
4.	100104	ESC-4	Basic Electrical & Electronics Engineering	70	20	10	30	20	150	3	-	2	4
5.	100105	ESC-5	Engineering Graphics	70	20	10	30	20	150	3	-	2	4
6.	100106	ESC-6	Manufacturing Practices	-	-	-	30	20	50	-	-	2	1
			<b>Total</b>	<b>350</b>	<b>100</b>	<b>50</b>	<b>150</b>	<b>100</b>	<b>750</b>	<b>15</b>	<b>1</b>	<b>10</b>	<b>21</b>
NSS/NCC				Qualifier									
Summer Internship Project –I (Institute Level) (Qualifier): Minimum two-week duration													

**GROUP A: (Electrical, Electronics, Computer Science & Engineering, Information Technology, Electronics & Telecommunication)**  
**GROUP B: (Civil, Mechanical, Chemical, Biotech, Automobile)**

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**MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR**  
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**Scheme of Examination**  
**B.Tech. III Semester (Electrical Engineering)**

**For batches admitted in Academic Session 2017-18 & 2018-19 Onwards (w.e.f. July, 2018)**

S.No.	Subject Code	Category Code	Subject Name	Maximum Marks Allotted					Total Marks	Contact Hours per week			Total Credits
				Theory Slot			Practical Slot			L	T	P	
				End Sem.	Mid Sem. Exam.	Quiz/ Assignment	End Sem	Term work Lab Work & Sessional					
1.	100001	BSC-4	Mathematics-II	70	20	10	-	-	100	3	1	-	4
2.	130301	DC-1		70	20	10	-	-	100	3	1	-	4
3.	130302	DC-2		70	20	10	30	20	150	3	-	2	4
4.	130303	DC-3		70	20	10	30	20	150	3	-	2	4
5.	130304	DC-4		70	20	10	30	20	150	3	-	2	4
6.	130305	DLC-1*		-	-	-	30	20	50	-	-	2	1
7.	130306	SEMINAR/ SELF STUDY	Self-learning/Presentation (SWAYAM/NPTEL/MOOC)#	-	-	-	-	25	25	-	-	2	1
8.	130307	DLC-2	Summer Internship Project-I (Institute Level) (Evaluation)	-	-	-	-	25	25			4	2
			<b>Total</b>	<b>350</b>	<b>100</b>	<b>50</b>	<b>120</b>	<b>130</b>	<b>750</b>	<b>15</b>	<b>2</b>	<b>14</b>	<b>24</b>
9.	100002 \$	MC-1	<b>Biology for Engineers (Audit Course)</b>	70	20	10	-	-	100	3		-	<b>03</b>
NSS/NCC				Qualifier									

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

\$ This course will run for Group A/B & Architecture students in III/IV semester respectively (Marks will not be included in the aggregate; but it is compulsory to obtain pass marks in this course)

\*Virtual Lab to be conducted along with the traditional lab

GROUP A: (Electrical, Electronics, Computer Science & Engineering, Information Technology, Electronics & Telecommunication)

GROUP B: (Civil, Mechanical, Chemical, Biotech, Automobile)



**MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR**  
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**Scheme of Examination**  
**B.Tech. IV Semester (Electrical Engineering)**

**For batches admitted in Academic Session 2017-18 & 2018-19 Onwards (w.e.f. July, 2018)**

S. No.	Subject Code	Category Code	Subject Name	Maximum Marks Allotted					Total Marks	Contact Hours per week			Total Credits
				Theory Slot			Practical Slot			L	T	P	
				End Sem.	Mid Sem. Exam.	Quiz/ Assignment	End Sem.	Term work					
								Lab Work & Sessional					
1.	100003	BSC-5	Mathematics- III	70	20	10	-	-	100	2	2	-	4
2.	130401	DC-5		70	20	10	30	20	150	2	1	2	4
3.	130402	DC-6		70	20	10	30	20	150	2	1	2	4
4.	130403	DC-7		70	20	10	-	-	100	3	1	-	4
5.	130404	DC-8		70	20	10	-	-	100	3	1	-	4
6.	100004	MC-2	Cyber Security	70	20	10	-	-	100	2	1	-	3
7.	130405	DLC-3*		-	-	-	30	20	50	-	-	4	2
<b>Total</b>				<b>420</b>	<b>120</b>	<b>60</b>	<b>90</b>	<b>60</b>	<b>750</b>	<b>14</b>	<b>7</b>	<b>8</b>	<b>25</b>
NSS/NCC				Qualifier									
Summer Internship Project-II (Software skills Based) for two weeks duration: Evaluation in V Semester													

\*Virtual Lab to be conducted along with the traditional lab

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**MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR**  
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**Scheme of Examination**  
**B.Tech. V Semester (Electrical Engineering)**

**For batches admitted in Academic Session 2017-18 & 2018-19 Onwards (w.e.f. July, 2018)**

S. No.	Subject Code	Category Code	Subject Name	Maximum Marks Allotted					Total Marks	Contact Hours per week			Total Credits
				Theory Slot			Practical Slot			L	T	P	
				End Sem.	Mid Sem Exam.	Quiz/Assignment	End Sem.	Lab work & Sessional					
1.	100005*	HSMC-4	Ethics, Economics, Entrepreneurship & Management	70	20	10	-	-	100	3	-	-	3
2.	130501	DC-9		70	20	10	-	-	100	3	1	-	4
3.	130502	DC-10		70	20	10	30	20	150	2	1	2	4
4.	130503	DC-11		70	20	10	30	20	150	2	1	2	4
5.	130504	DC-12		70	20	10	30	20	150	2	1	2	4
6.	130505	DLC-4	Minor Project-I**	-	-	-	30	20	50	-	-	2	1
7.	130506	DLC-5	Summer Internship Project-II (Evaluation)	-	-	-	25	-	25	-	-	6	3
8.	130507	SEMINAR/ SELF STUDY	Self-learning/Presentation (SWAYAM/NPTEL/ MOOC)#	-	-	-	-	25	25	-	-	2	1
			<b>Total</b>	<b>350</b>	<b>100</b>	<b>50</b>	<b>145</b>	<b>105</b>	<b>750</b>	<b>12</b>	<b>4</b>	<b>16</b>	<b>24</b>
9.	100006\$	MC-3	Indian Constitution & Traditional Knowledge (Audit Course)	70	20	10	-	-	100	3		-	03
				Department level activity/workshop/awareness programme to be conducted; certificate of compliance to be submitted by HoD to the Exam Controller through Dean Academics									
		Additional Course for Honours or minor Specialization	Permitted to opt for maximum two additional courses for the award of Honours or Minor specialization										

\* Group A/B programmes will offer this course in V/VI Semester respectively.

\$ Group A/B programmes will offer this course in V/VI Semester respectively. (Marks will not be included in the aggregate; but it is compulsory to obtain pass marks in this course)

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

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

GROUP A: (Electrical, Electronics, Computer Science & Engineering, Information Technology, Electronics & Telecommunication)

GROUP B: (Civil, Mechanical, Chemical, Biotech, Automobile)

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**Scheme of Examination**  
**B.Tech. VI Semester (Electrical Engineering)**

**For batches admitted in Academic Session 2017-18 & 2018-19 Onwards (w.e.f. July, 2018)**

S. No	Subject Code	Category Code	Subject Name	Maximum Marks Allotted					Total Marks	Contact Hours per week			Total Credits
				Theory Slot			Practical Slot			L	T	P	
				End Sem.	Mid Sem Exam.	Quiz/Assignment	End Sem.	Lab work & Sessional					
1.	130601	DC-13		70	20	10	30	20	150	2	1	2	4
2.	130602 <sup>#</sup>	DE-1	DE*	70	20	10	-	-	100	4	-	-	4
3.	130603	DE-2	DE*	70	20	10	-	-	100	4	-	-	4
4.	130604	DE-3	DE*	70	20	10	-	-	100	4	-	-	4
5.	130605	OC-1	OC*	70	20	10	-	-	100	2	1	-	3
6.	100007	MC-4	Disaster Management	70	20	10	-	-	100	3	-	-	3
7.	130606	DLC-6	Minor Project-II	-	-	-	50	50	100	-	-	4	2
			<b>Total</b>	<b>420</b>	<b>120</b>	<b>60</b>	<b>80</b>	<b>70</b>	<b>750</b>	<b>19</b>	<b>2</b>	<b>6</b>	<b>24</b>
<b>Summer Internship-III (On Job Training) for Four weeks duration: Evaluation in VII Semester</b>													
		<b>Addition al Course for Honours or minor Specializ ation</b>	<b>Permitted to opt for maximum two additional courses for the award of Honours or Minor specialization</b>										

<sup>#</sup> Group A/B programmes will offer this course in V/VI Semester respectively.

\* At least one of these courses must be run through SWAYAM/NPTEL/ MOOC

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**MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR**  
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**Scheme of Examination**  
**B.Tech. VII Semester (Electrical Engineering)**

**For batches admitted in Academic Session 2017-18 & 2018-19 Onwards (w.e.f. July, 2018)**

S.No.	Subject Code	Category Code	Subject Name & Title	Maximum Marks Allotted					Total Marks	Contact Hours per week			Total Credits
				Theory Slot			Practical Slot			L	T	P	
				End Sem.	Mid Sem. Exam	Quiz/ Assignment	End Sem.	Term Work					
								Lab Work & Sessional					
1.	130701	DE-4	DE	70	20	10	-	-	100	3	-	-	3
2.	130702	DE-5	DE*	70	20	10	-	-	100	2	-	-	2
3.	130703	OC-2	OC	70	20	10	-	-	100	2	1	-	3
4.	130704	OC-3	OC	70	20	10	-	-	100	3	-	-	3
5.	100008	MC-5	Intellectual Property Rights (IPR)	70	20	10	-	-	100	2	-	-	2
6.	130705	DLC-7		-	-	-	50	50	100	-	-	4	2
7.	130706	DLC-8	Summer Internship Project-III (04 weeks) (Evaluation)	-	-	-	50	50	100	-	-	4	2
8.	130707	DLC-9	Creative Problem Solving (Evaluation)	-	-	-	25	25	50	-	-	2	1
<b>Total</b>				<b>350</b>	<b>100</b>	<b>50</b>	<b>125</b>	<b>125</b>	<b>750</b>	<b>12</b>	<b>1</b>	<b>10</b>	<b>18</b>
		Additional Course for Honours or minor Specialization	Permitted to opt for maximum two additional courses for the award of Honours or Minor specialization										

\* This course must be run through SWAYAM/NPTEL/ MOOC

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**MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR**  
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**Scheme of Examination**  
**B.Tech. VIII Semester (Electrical Engineering)**

**For batches admitted in Academic Session 2017-18 & 2018-19 Onwards (w.e.f. July, 2018)**

S.No.	Subject Code	Category	Subject Name & Title	Maximum Marks Allotted					Total Marks	Contact Hours per week			Total Credits
				Theory Slot			Practical Slot			L	T	P	
				End Sem.	Mid Sem. Exam	Quiz/ Assignment	End Sem.	Term Work Lab Work & Sessional					
1.	130801	DE-6	DE*	70	20	10	-	-	100	3	-	-	3
2.	130802	OC-4	OC*	70	20	10	-	-	100	3	-	-	3
3.	130803	OC-5	OC*	70	20	10	-	-	100	3	-	-	3
4.	130804	DLC-10	Internship/Project	-	-	-	250	150	400	-	-	6	3
5.	130805	DLC-11	Innovative Technical Contribution <sup>#</sup>	-	-	-	-	50	50	-	-	2	1
<b>Total</b>				<b>210</b>	<b>60</b>	<b>30</b>	<b>250</b>	<b>200</b>	<b>750</b>	<b>9</b>	<b>-</b>	<b>8</b>	<b>13</b>
		<b>Additional Course for Honours or minor Specialization</b>	<b>Permitted to opt for maximum two additional courses for the award of Honours or Minor specialization</b>										

\*All of these courses will run through SWAYAM/NPTEL/ MOOC

<sup>#</sup> Evaluation will be based on participation/laurels brought by the students to the institution in national/state level technical events during the complete tenure of the UG program

# MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR

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

## B. Arch. Scheme Structure & Semester-Wise Credit Distribution (Under Flexible Curriculum)

### Reference Course Scheme Structure & Semester – wise credit distribution

#### General Definition:

Category Code	Course category
L	Lecture
T	Tutorial
P/ST	Practical / Studio
DC	Departmental (Professional ) Core
BSAE	Building Science & Applied Engineering
DE	Departmental(Professional) Elective
OC	Open Category
PAEC	Professional Ability Enhancement Course
SEC	Skill Enhancement Course
MC	Mandatory Course

# MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR

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

## Definition of Credit:

As per Council of Architecture (CoA) Recommendation

1 Lecture period/ hour	1 Credit
2 Lab/ Workshop/ Studio Exercise Periods/ Hours	1 Credit
1 Design Studio/ Construction Studio/ Project/ Thesis Period/ Hour	1.5 Credit

## Range of Credits:

As per the recommendation and Council of Architecture (CoA), Provision of 30 contact hours per week and 260 credits have been made to pass the B. Architecture course of five Years. More over to earn B. Arch. degree with Honours or Minor Specialization, it is required to compute 24 additional credits.

**Note:** In partial fulfillment of flexible curriculum, a mandate provision to earn credits through E-Learning (NPTEL/MOOC etc.) based Departmental Core/Elective (DC/DE) has been introduced. Additionally, to give the students more flexibility to orient themselves as per their interest while retaining the discipline specific knowledge and capabilities, provision for Open Category (OC) Courses have been made.

# MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR

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## Proposed Structure of Bachelor of Architecture (B.Arch.) program

Category Code	Course Category	Weightage in terms of credits as per CoA norms (2017 regulations)	No of courses	Total credits	Weightage in terms of credits achieved
DC	Departmental(Professional ) Core	45%	19	126	48.5 %
BSAE	Building Science & Applied Engineering	20%	14	57	22%
DE	Departmental(Professional) Elective	10%	8	21	8.00%
OC	Open Category	5%	3	9	3.5%
PAEC	Professional Ability Enhancement Course	15%	7	31	12%
SEC	Skill Enhancement Course	5%	11	16	6%
MC	Mandatory Course	Audit Courses	2	06(Audit)	-
<b>TOTAL</b>		100%	-	260	100

### List of Open Category Courses

- OC1 Graphic Design
- OC2 Culturally Responsive Built Environments
- OC3 Product Design
- OC4 Holistic Development Planning
- OC5 Sustainable Development



# MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR

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## Additional Courses

GROUP -A ( I - IV Sem.)	<ol style="list-style-type: none"><li>i. Foreign Language</li><li>ii. Software Training Course</li><li>iii. Mathematical Modeling</li><li>iv. Graphic Design</li></ol>
GROUP -B ( V - VIII Sem.)	<ol style="list-style-type: none"><li>i. Architectural Journalism</li><li>ii. Building Performance &amp; Compliance</li><li>iii. Building system Integration &amp; Management</li><li>iv. Green Buildings &amp; Rating System</li></ol>
GROUP -C ( IX - X Sem.)	<ol style="list-style-type: none"><li>i. Research Methodology</li><li>ii. Sustainable Cities &amp; Communities</li><li>iii. Open category course*</li><li>iv. SWAYAM/ NPTEL/ MOOC/ Edx Courses</li></ol>

*\*It should be new not opted earlier*

- Additional courses may vary every year as per availability of course experts.
- Student may opt for maximum two additional courses per semester.
- Each additional course will have 3 credits and the student has to achieve 24 additional credits for Honors.

# MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR

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

## Scheme of Examination

**W.E.F. JULY 2018 Batch**

### Bachelor of Architecture, First Year, I Semester

S.No	Subject Code	Subject Name	Category	Maximum Marks Allotted					Total Marks	CT HRS.	Contact Periods per week			Total Credits
				Theory Slot			Practical Slot				L	T	P	
				End Sem.	Mid Sem.	Quiz/Assignment /Sessional	End Sem.	Lab work & Sessional						
1.	210101	Architectural Design – I	DC-1	100	30	20	50	50	250	7	2	3	2(1.5)	8
2.	210102	Building Materials	BSAE-1	50	30	20	-	-	100	3	2	1	-	3
3.	210103	Graphics – I	DC- 2	50	30	20	50	50	200	7	2	3	2	6
4.	210104	Workshop – I	SEC -1	-	-	-	20	30	50	4	-	-	4	2
5.	210105	History of Architecture- I	DC- 3	50	30	20	-	-	100	3	2	1	-	3
6.	210106	Structure -I	BSAE- 2	50	30	20	-	-	100	3	2	1	-	3
7.	210107	Technical English	SEC -2	50	30	20	-	-	100	2	1	1	-	2
<b>Total</b>				<b>350</b>	<b>180</b>	<b>120</b>	<b>120</b>	<b>130</b>	<b>900</b>	<b>29</b>	<b>11</b>	<b>10</b>	<b>8</b>	<b>27</b>

**Induction program of three weeks (MC): Physical activity, Creative Arts, Universal Human Values, Literary, Proficiency Modules, Lectures by Eminent people, Visits to local Areas, Familiarization to Dept/ Branch Innovation**

\* One Design Studio/ Construction Studio/ Project/ Thesis Period/ Hour shall have 1.5 Credit

# MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR

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

## Scheme of Examination

**W.E.F. JULY 2018**

### Bachelor of Architecture, First Year, II Semester

S.No	Subject Code	Subject Name	Category	Maximum Marks Allotted					Total Marks	CT HRS.	Contact Periods per week			Total Credits
				Theory Slot			Practical Slot				L	T	P	
				End Sem.	Mid Sem Exam.	Quiz/ Assignment/ Sessional	End Sem.	Lab work & Sessional						
1.	210201	Architectural Design – II	DC- 4	100	30	20	50	50	250	7	2	3	2(1.5)	<b>8</b>
2.	210202	Building Construction -I	BSAE- 3	50	30	20	20	30	150	5	2	1	2(1.5)	<b>6</b>
3.	210203	Graphics – II	DC- 5	50	30	20	20	30	150	4	1	1	2	<b>3</b>
4.	210204	Workshop – II	SEC- 3	-	-	-	20	30	50	4	-	-	4	<b>2</b>
5.	210205	History of Architecture- II	DC- 6	50	30	20	-	-	100	3	2	1	-	<b>3</b>
6.	210206	Structure -II	BSAE- 4	50	30	20	-	-	100	3	2	1	-	<b>3</b>
7.	210207	Theory of Design	DC- 7	50	30	20	-	-	100	2	2	-	-	<b>2</b>
		<b>Total</b>		<b>350</b>	<b>180</b>	<b>120</b>	<b>110</b>	<b>140</b>	<b>900</b>	<b>28</b>	<b>11</b>	<b>7</b>	<b>10</b>	<b>27</b>
<b>Summer Internship Project- I (Institute level) (Qualifier) : Minimum two weeks duration</b>														

\* One Design Studio/ Construction Studio/ Project/ Thesis Period/ Hour shall have 1.5 Credit

# MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR

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

## Scheme of Examination

**For batches admitted in July, 17 & July, 18 (w.e.f. July, 2018)**

### Bachelor of Architecture, Second Year, III Semester

S.No.	Subject Code	Subject Name	Category	Maximum Marks Allotted					Total Marks	CT HR S	Contact Periods per week			Total Credits
				Theory Slot			Practical Slot				L	T	P	
				End Sem.	Mid Sem. Exam.	Quiz/ Assignment / Sessional	End Sem.	Term work						
1.	210301	Architectural Design – III	DC- 8	100	30	20	50	50	250	7	2	3	2(1.5)	8
2.	210302	Building Construction -II	BSAE- 5	50	30	20	50	50	200	5	2	1	2(1.5)	6
3.	210303	Graphics -III	PAEC- 1	-	-	-	50	50	100	6	-	-	6	3
4.	210304	Surveying & Leveling	BSAE- 6	50	30	20	-	-	100	3	1	2	-	3
5.	210305	History of Architecture-III	DC- 9	50	30	20	-	-	100	3	2	1	-	3
6.	210306	Structure-III	BSAE- 7	50	30	20	-	-	100	3	2	1	-	3
7.	210307	Summer Internship Project –I (Institute Level Evaluation)	SEC- 4	-	-	-	-	50	50	2	-	-	2	1
<b>Total</b>				<b>300</b>	<b>150</b>	<b>100</b>	<b>150</b>	<b>200</b>	<b>900</b>	<b>29</b>	<b>9</b>	<b>8</b>	<b>12</b>	<b>27</b>
8.	100002	Biology for Engineers/Architects (Audit Course)	MC-1	50	30	20	-	-	100	3	3	-	-	3
<b>NSS/NCC</b>				<b>Qualifier</b>										

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

Tour/ seminar/ Workshop/ Training during winter break

\*One Design Studio/ Construction Studio/ Project/ Thesis Period/ Hour shall have 1.5 Credit

\*100002 will not be included in the aggregate, but it is compulsory to obtain pass marks in this course

# MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR

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

## Scheme of Examination

**For batches admitted in July, 17 & July, 18 (w.e.f. July, 2018)**

### Bachelor of Architecture, Second Year, IV Semester

S.No.	Subject Code	Subject Name	Category	Maximum Marks Allotted					Total Marks	CT HRS	Contact Periods per week			Total Credits
				Theory Slot			Practical Slot				L	T	P	
				End Sem.	Mid Sem. Exam.	Quiz/ Assignment / Sessional	End Sem.	Term work						
								Lab Work & Sessional						
1.	210401	Architectural Design – IV	DC- 10	100	30	20	50	50	250	7	2	3	2(1.5)	8
2.	210402	Building Construction –III	BSAE- 8	50	30	20	20	30	150	5	2	1	2(1.5)	6
3.	210403	Building Services -I	BSAE- 9	50	30	20	-	-	100	3	2	1	-	3
4.	210404	History of Architecture-IV	DC- 11	50	30	20	-	-	100	3	2	1	-	3
5.	210405	Structure -IV	BSAE- 10	50	30	20	-	-	100	3	2	1	-	3
6.	210406	Elective –I (SWAYAM)	DE- 1	50	30	20	-	50	150	4	2	-	2	3
7.	210407	Tour/ Seminar / Workshop/ NAS Training during winter break	SEC- 5	-	-	-	-	50	50	2	-	-	2	1
<b>Total</b>				<b>350</b>	<b>180</b>	<b>120</b>	<b>70</b>	<b>180</b>	<b>900</b>	<b>27</b>	<b>12</b>	<b>7</b>	<b>8</b>	<b>27</b>
<b>NSS/NCC</b>										<b>Qualifier</b>				
<b>Summer Internship Project- II (Software based): Minimum two weeks duration: Evaluation in V semester</b>														

# Compulsory registration for one online course using SWAYAM/NPTEL/ MOOC

Seminar / Workshop/ Training during summer break

\*One Design Studio/ Construction Studio/ Project/ Thesis Period/ Hour shall have 1.5 Credit

# MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR

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

## Scheme of Examination

**For batches admitted in July, 17 & July, 18**

### Bachelor of Architecture, Third Year, V Semester

S.No	Subject Code	Subject Name	Category	Maximum Marks Allotted					Total Marks	CT HRS	Contact Periods per week			Total Credits
				Theory Slot			Practical Slot				L	T	P	
				End Sem.	Mid Sem Exam	Quiz/ Assignment/ Sessional	End Sem.	Lab work & Sessional						
1.	210501	Architectural Design – V	DC- 12	100	30	20	50	50	250	7	2	3	2(1.5)	8
2.	210502	Building Construction -IV	BSAE-11	50	30	20	20	30	150	5	2	1	2(1.5)	6
3.	210503	Building Services-II	BSAE-12	50	30	20	-	-	100	3	2	1	-	3
4.	210504	Building Sciences & Energy Conservation	BSAE-13	50	30	20	-	-	100	3	2	1	-	3
5.	210505	Site Planning And Landscaping	DC- 13	50	30	20	20	30	150	4	1	1	2	3
6.	210506	Elective –II (SWAYAM)	DE- 2	50	30	20	-	-	100	3	2	1	-	3
7.	210507	Summer Internship Project- II	SEC- 6	-	-	-	-	50	50	2	-	-	2	1
<b>Total</b>				<b>350</b>	<b>180</b>	<b>120</b>	<b>90</b>	<b>160</b>	<b>900</b>	<b>27</b>	<b>11</b>	<b>8</b>	<b>8</b>	<b>27</b>
8.	100006	Constitution of India/ Essence of Indian Traditional knowledge (Audit course)	MC- 2	50	30	20	-	-	100	3	-	-		3
				Department level activity/ workshop/ awareness programme to be conducted, certificate of compliance to be submitted by HoD to the Exam Controller through Dean Academics										
Additional Course for Honors of Minor Specialization				Permitted to opt for maximum two additional courses for the award of Honors or Minor specialization										

# **Compulsory registration for one online course using SWAYAM/NPTEL/ MOOC**

Tour/ seminar/ Workshop/ Training during winter break will be evaluated in next semester

\*One Design Studio/ Construction Studio/ Project/ Thesis Period/ Hour shall have 1.5 Credit

\*100006 will not be included in the aggregate, but it is compulsory to obtain pass marks in this course

# MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR

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

## Scheme of Examination

**For batches admitted in July, 17 & July, 18**

### Bachelor of Architecture, Third Year, VI Semester

S.No	Subject Code	Subject Name	Category	Maximum Marks Allotted					Total Marks	CT HR S	Contact Periods per week			Total Credits
				Theory Slot			Practical Slot				L	T	P	
				End Sem.	Mid Sem Exam.	Quiz/ Assignment / Sessional	End Sem.	Lab work & Sessional						
1.	210601	Architectural Design – VI	DC- 14	100	30	20	50	100	300	7	2	3	2(1.5)	<b>8</b>
2.	210602	Building Construction - V	BSAE- 14	50	30	20	20	30	150	5	2	1	2(1.5)	<b>6</b>
3.	210603	DE- 3	DE- 3	50	30	20	-	-	100	3	2	1	-	<b>3</b>
4.	210604	Working Drawing	PAEC- 2	-	-	-	50	50	100	4	-	-	4	<b>2</b>
5.	210605	Elective III (SWAYAM)	DE- 4	50	30	20	-	-	100	3	1	2	-	<b>3</b>
6.	210606	DE- 5	DE- 5	50	30	20	-	-	100	3	2	1	-	<b>3</b>
7.	210607	Tour/ seminar / Workshop Training during winter break	SEC- 7	-	-	-	-	50	50	2	-	-	2	<b>1</b>
<b>Total</b>				<b>300</b>	<b>150</b>	<b>100</b>	<b>120</b>	<b>230</b>	<b>900</b>	<b>27</b>	<b>9</b>	<b>8</b>	<b>10</b>	<b>26</b>
Additional Course for Honors of Minor Specialization				Permitted to opt for maximum two additional courses for the award of Honors or Minor specialization										

# **Compulsory registration for one online course using SWAYAM/NPTEL/ MOOC**

Seminar / Workshop/ Training during summer break will be evaluated in next semester

\*One Design Studio/ Construction Studio/ Project/ Thesis Period/ Hour shall have 1.5 Credit

# MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR

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

## Scheme of Examination

**For batches admitted in July, 17 & July, 18**

### Bachelor of Architecture, Fourth Year, VII Semester

S. No.	Subject Code	Subject Name & Title	Category	Maximum Marks Allotted					Total Marks	CT HRS	Contact Periods per week			Total Credits
				Theory Slot			Practical Slot				L	T	P	
				End Sem.	Mid Sem. Exam	Quiz/ Assignment/ Sessional	End Sem.	Term Work Lab Work & Sessional						
1	210701	Architectural Design – VII	DC- 15	-	50	50	50	150	300	7	2	3	2(1.5)	8
2	210702	Building Construction – VI	DC- 16	50	30	20	20	30	150	5	2	1	2(1.5)	6
3	210703	DE- 6	DE- 6	50	30	20	-	-	100	3	2	1	-	3
4	210704	Estimating and Costing & Specifications & Building Economics	PAEC- 3	50	30	20	-	-	100	3	2	1	-	3
5	210705	Elective IV (SWAYAM)	DE- 7	50	30	20	-	-	100	3	2	1	-	3
6	210706	OC-1	OC-1	70	20	10	-	-	100	3	2	1	-	3
7.	210707	Summer Internship project- III (04 weeks- Evaluation)	SEC- 8	-	-	-	-	50	50	2	-	-	2	1
<b>Total</b>				<b>270</b>	<b>190</b>	<b>140</b>	<b>70</b>	<b>230</b>	<b>900</b>	<b>26</b>	<b>12</b>	<b>8</b>	<b>6</b>	<b>27</b>
Additional Course for Honors of Minor Specialization				Permitted to opt for maximum two additional courses for the award of Honors or Minor specialization										

# **Compulsory registration for one online course using SWAYAM/NPTEL/ MOOC**

Tour/ seminar/ Workshop/ Training during winter break will be evaluated in next semester

\*One Design Studio/ Construction Studio/ Project/ Thesis Period/ Hour shall have 1.5 Credit



# MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR

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

## Scheme of Examination

**For batches admitted in July, 17 & July, 18**

### Bachelor of Architecture, Fourth Year, VIII Semester

S.No.	Subject Code	Subject Name & Title	Category	Maximum Marks Allotted					Total Marks	CT HRS	Contact Periods per week			Total Credits
				Theory Slot			Practical Slot				L	T	P	
				End Sem.	Mid Sem. Exam	Quiz/ Assignment / Sessional	End Sem.	Term Work Lab Work & Sessional						
1.	210801	Architectural Design – VIII	DC- 17	-	50	50	50	100	250	8	2	2	4(1.5)	<b>10</b>
2.	210802	Urban Design	DC- 18	50	30	20	50	50	200	5	2	1	2	<b>4</b>
3.	210803	Project Management	PAEC- 4	50	30	20	-	-	100	3	2	1	-	<b>3</b>
4.	210804	Dissertation	PAEC- 5	-	-	-	50	50	100	4	-	-	4	<b>2</b>
5.	210805	OC- 2	OC- 2	70	20	10	-	-	100	3	2	1	-	<b>3</b>
6.	210806	OC- 3	OC- 3	70	20	10	-	-	100	3	2	1	-	<b>3</b>
7.	210807	Tour/ seminar / NASA/Workshop/Training during winter break	SEC- 9	-	-	-	-	50	50	2	-	-	2	<b>1</b>
		<b>Total</b>		<b>240</b>	<b>150</b>	<b>110</b>	<b>150</b>	<b>250</b>	<b>900</b>	<b>28</b>	<b>10</b>	<b>6</b>	<b>12</b>	<b>26</b>
Additional Course for Honors of Minor Specialization			Permitted to opt for maximum two additional courses for the award of Honors or Minor specialization											

\*One Design Studio/ Construction Studio/ Project/ Thesis Period/ Hour shall have 1.5 Credit

# MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR

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

## Scheme of Examination

**For batches admitted in July, 17 & July, 18**

### Bachelor of Architecture, Fifth Year, IX Semester

S.No.	Subject Code	Subject Name & Title	Category	Maximum Marks Allotted					Total Marks	Min. Working HRS/ Week	Contact Periods per week			Total Credits
				Theory Slot			Practical Slot							
				End Sem.	Mid Sem. Exam	Quiz/ Assignment	End Sem.	Term Work Lab Work & Sessional			L	T	P	
1.	210901	Professional Training	PAEC- 6	-	-	-	400	400	800	32	-	-	32	<b>16</b>
2.	210902	Critical Appraisal (Architectural Case Studies and Book Review)	SEC- 10	-	-	-	50	50	100	4	-	-	4	<b>2</b>
		<b>Total</b>					<b>450</b>	<b>450</b>	<b>900</b>	<b>36</b>	-	-	<b>36</b>	<b>18</b>
Additional Course for Honors of Minor Specialization			Permitted to opt for maximum two additional courses for the award of Honors or Minor specialization											

# MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR

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

## Scheme of Examination

**For batches admitted in July, 17 & July, 18**

### Bachelor of Architecture, Fifth Year, X Semester

S.No.	Subject Code	Subject Name & Title	Category	Maximum Marks Allotted					Total Marks	CT HRS	Contact Periods per week			Total Credits
				Theory Slot			Practical Slot				L	T	P	
				End Sem.	Mid Sem. Exam	Quiz/ Assignment / Sessional	End Sem.	Term Work Lab Work & Sessional						
1.	211001	Project	DC- 19	-	-	200	400	150	750	20	-	12	8(1.5)	<b>24</b>
2.	211002	Professional Practice & Ethics (MC)	PAEC- 7	50	30	20	-	-	100	3	2	1	-	<b>3</b>
3.	211003	Innovative Technical Contribution	SEC- 11	-	-	-	50	-	50	2	-	-	2	<b>1</b>
<b>Total</b>				<b>50</b>	<b>30</b>	<b>220</b>	<b>450</b>	<b>150</b>	<b>900</b>	<b>25</b>	<b>2</b>	<b>13</b>	<b>10</b>	<b>28</b>
Additional Course for Honors of Minor Specialization			Permitted to opt for maximum two additional courses for the award of Honors or Minor specialization											

\*One Design Studio/ Construction Studio/ Project/ Thesis Period/ Hour shall have 1.5 Credit

- Contribution in NASA work/ Architecture competition participations, etc will also be evaluated in 211003 through records and presentation.