

NAAC Criterion-II

Teaching-learning and Evaluation

Key Indicator - 2.6: Student Performance and Learning Outcomes

Sub-Criteria 2.6.2: Attainment of programme outcomes and course outcomes are evaluated by the institution.



MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR

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

Gola ka Mandir, Gwalior - 474005, Madhya Pradesh, India

Sulchare
24.02.2023
(COBE, Nodal Manager)

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Additional documents/evidence/proof

S.No.	Evidence/proof/Additional Information		
1	Proof of COs, POs of Civil Engineering Department		
	S.No.	Particulars	Link
	1.	POs-PEOs-PSOs	http://web.mitsgwalior.in/index.php/pos-peos-psos-civil
	2.	Course Outcomes	https://web.mitsgwalior.in/course-outcomes-civil
	3.	Course Outcomes Attained	http://web.mitsgwalior.in/index.php/course-outcomes-attained-civil
	4.	Attainment of Program Outcomes	http://web.mitsgwalior.in/index.php/attainment-of-program-outcomes-civil
2	Proof of COs, POs of Mechanical Engineering Department		
	S.No.	Particulars	Link
	1.	POs-PEOs-PSOs	http://web.mitsgwalior.in/index.php/pos-peos-psos-me
	2.	Course Outcomes	https://web.mitsgwalior.in/course-outcomes-me
	3.	Course Outcomes Attained	http://web.mitsgwalior.in/index.php/course-outcomes-attained-me
	4.	Attainment of Program Outcomes	http://web.mitsgwalior.in/index.php/attainment-of-program-outcomes-me
3	Proof of COs, POs of Electrical Engineering Department		
	S.No.	Particulars	Link
	1.	POs-PEOs-PSOs	http://web.mitsgwalior.in/index.php/peos-pos-psos-ee
	2.	Course Outcomes	http://web.mitsgwalior.in/index.php/course-outcomes-attained-ee
	3.	Course Outcomes Attained	http://web.mitsgwalior.in/index.php/course-outcomes-attained-ee
	4.	Attainment of Program Outcomes	http://web.mitsgwalior.in/index.php/attainment-of-program-outcomes-ee
4	Proof of COs, POs of Computer Science Engineering Department		
	S.No.	Particulars	Link
	1.	POs-PEOs-PSOs	http://web.mitsgwalior.in/index.php/pos-peos-psos-cse
	2.	Course Outcomes	https://web.mitsgwalior.in/course-outcomes-cse
	3.	Course Outcomes Attained	http://web.mitsgwalior.in/index.php/course-outcomes-attained-cse
	4.	Attainment of Program Outcomes	http://web.mitsgwalior.in/index.php/attainment-of-program-outcomes-cse
5	Proof of COs, POs of Electronics Engineering Department		
	S.No.	Particulars	Link
	1.	POs-PEOs-PSOs	http://web.mitsgwalior.in/index.php/pos-peos-psos-ete
	2.	Course Outcomes	https://web.mitsgwalior.in/course-outcomes-ete
	3.	Course Outcomes Attained	http://web.mitsgwalior.in/index.php/course-outcomes-attained-ete
	4.	Attainment of Program Outcomes	http://web.mitsgwalior.in/index.php/attainment-of-program-outcomes-ete
6	Proof of COs, POs of Information Technology Department		
	S.No.	Particulars	Link

	1.	POs-PEOs-PSOs	http://web.mitsgwalior.in/index.php/pos-peos-psos-it
	2.	Course Outcomes	http://web.mitsgwalior.in/index.php/course-outcomes-it
	3.	Course Outcomes Attained	http://web.mitsgwalior.in/index.php/attainment-of-program-outcomes-it
	4.	Attainment of Program Outcomes	http://web.mitsgwalior.in/index.php/course-outcomes-attained-it
7	Proof of COs, POs of Chemical Engineering Department		
	S.No.	Particulars	Link
	1.	POs-PEOs-PSOs	http://web.mitsgwalior.in/index.php/pos-peos-psos-chem
	2.	Course Outcomes	http://web.mitsgwalior.in/index.php/course-outcomes-chem
	3.	Course Outcomes Attained	http://web.mitsgwalior.in/index.php/attainment-of-program-outcomes-chem
	4.	Attainment of Program Outcomes	http://web.mitsgwalior.in/index.php/course-outcomes-attained-chem
8	Proof of COs, POs of Architecture & Planning Department		
	S.No.	Particulars	Link
	1.	POs-PEOs-PSOs	http://web.mitsgwalior.in/index.php/pos-peos-psos-agg
	2.	Course Outcomes	http://web.mitsgwalior.in/index.php/course-outcomes-agg
	3.	Course Outcomes Attained	http://web.mitsgwalior.in/index.php/attainment-of-program-outcomes-agg
	4.	Attainment of Program Outcomes	http://web.mitsgwalior.in/index.php/course-outcomes-attained-agg
9	Proof of COs, POs of Engineering Mathematics & Computing Department		
	S.No.	Particulars	Link
	1.	POs-PEOs-PSOs	http://web.mitsgwalior.in/index.php/pos-peos-psos-emc
	2.	Course Outcomes	http://web.mitsgwalior.in/index.php/course-outcomes-emc
	3.	Course Outcomes Attained	http://web.mitsgwalior.in/index.php/attainment-of-program-outcomes-emc
	4.	Attainment of Program Outcomes	http://web.mitsgwalior.in/index.php/course-outcomes-attained-emc
	Proof of COs, POs of Management Department		
10	S.No.	Particulars	Link
	1.	POs-PEOs-PSOs	http://web.mitsgwalior.in/index.php/pos-peos-psos-md
	2.	Course Outcomes	http://web.mitsgwalior.in/index.php/course-outcomes-md
	3.	Course Outcomes Attained	http://web.mitsgwalior.in/index.php/attainment-of-program-outcomes-md
	4.	Attainment of Program Outcomes	http://web.mitsgwalior.in/index.php/course-outcomes-attained-md

Madhav Institute of Tecnology & Science Gwalior

PO Attainment 2017-2021

Sample of Mechanical Department

B.E./B.Tech. Mechanical Engineering

S.No.	Subject Name and Code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
1	Mathematics-II (100001)	2.25	2.25	2.21	2.17	2.25		2.80					2.45	2.25	2.25
2	Material Science (120301)	2.46	2.45	2.40	2.34	2.34	2.45	2.49	2.53	2.42	2.46	2.47	2.46	2.45	2.45
3	Mechanics of Materials (120302)	2.01	2.00	1.90	1.82	1.80	1.98	2.04	1.78	2.01	2.15	2.00	1.95	1.98	2.01
4	Theory of Machines-1 (120303)	1.92	1.97	1.95	1.90	1.93	2.01	1.95	1.96	2.30	2.05		1.93	1.87	1.92
5	Fluid Mechanics and Hydraulic Machines (120304)	1.99	1.99	1.94	2.01	1.65	2.07	2.07	2.07	1.76	1.70	2.12	2.07	1.99	2.09
6	Mechanics of Materials lab (120302 P)	2.12	2.14	1.96	2.08	1.96	2.13	2.11	1.96	2.07	2.21	1.96	2.07	2.14	2.07
7	Theory of Machines-1 Lab (120303 P)	2.33	2.39	2.56	2.32	2.52	2.39	2.46	2.25	2.78	2.23		2.39	2.36	2.27
8	Fluid Mechanics and Hydraulic Machines Lab (120304 P)	2.59	2.60	2.54	2.64	2.52	2.62	2.62	2.62	2.56	2.48	2.75	2.62	2.60	2.59
9	Software lab (120305 P)	2.53	2.45	2.49	2.40	2.30	2.47	2.44	2.48	2.47	2.57	2.50	2.47	2.45	2.47
10	Self-Learning/Presentation Lab (120306 P)	2.22	2.22	2.38	2.28	2.14	2.26	2.20	2.17	1.97	1.97		2.29	2.22	2.21
11	Summer Intership Program (120307 P)	2.40	2.38	2.58	2.38	2.54	2.38	2.38	2.38	2.37	2.50	2.30	2.38	2.38	2.46
12	Biology for Engineers (100002)	2.42	2.38	2.41	2.40	2.42	2.33	2.19		2.42	2.41	2.41	2.44	2.47	2.43
13	Mathematics-III (100003)	2.44	2.45	2.44	2.46	2.42	2.43	2.42	2.43	2.44	2.49	2.42	2.43	2.44	2.43
14	Cyber Security (100004)	2.59	2.74	2.56	2.79	2.67	2.56	2.52	2.70	2.61	2.79	2.50	2.58	2.55	2.56
15	Theory of Machines –II (120401)	2.20	2.07	2.17	2.19	2.55	2.16	2.06	2.18	2.16	2.10	2.26	2.17	2.26	2.18
16	Design of Machine Elements (120402)	2.54	2.56	2.54	2.56	2.58	2.64	2.49		2.54	2.52	2.55	2.56	2.54	2.54
17	Manufacturing Process (120403)	2.65	2.65	2.66	2.65	2.68	2.66	2.69		2.65	2.64	2.66	2.65	2.64	2.65
18	Engineering Thermodynamics (120404)	2.69	2.67	2.71	2.65	2.73	2.74	2.64	2.67	2.68	2.71	2.61	2.67	2.68	2.69
19	Theory of Machines –II lab (120401 P)	2.76	2.76	2.76	2.77	2.76		2.76	2.76	2.77	2.77	2.76		2.76	2.77
20	Design of Machine Elements lab (120402 P)	2.12	2.06	2.05	2.22	1.96	2.26	1.97	1.94	2.10	2.10	2.26	2.08	2.11	2.14
21	Production Lab (120405 P)	2.52	2.54	2.43	2.49	2.50	2.58	2.75		2.52	2.54	2.75	2.49	2.47	2.47
22	Industrial Engineering (120501)	2.19	2.22	2.20	2.21	2.24	2.15	2.21	2.09	2.21	2.27	2.19	2.20	2.21	2.19
23	(120501)	2.43	2.41	2.43	2.18	2.32	2.49	2.31	2.42	2.43	2.38	2.25		2.28	2.28
24	Heat & Mass Transfer (120503)	2.13	2.03	2.09	1.93	1.98	2.09	2.06	2.03	2.05	1.99	2.14	2.00	2.05	2.00

25	Thermal Engineering (120504)	2.16	2.35	2.35	2.23	2.39	2.34	2.35	2.37	2.37	2.20	2.18	2.36	2.37	2.41
26	Machine Design (120505)	2.24	2.24	2.27	2.23	2.23	2.17	2.30	2.27	2.25	2.26	2.24	2.27	2.32	2.19
27	Heat & Mass Transfer lab (120503 P)	2.14	2.20	2.19	2.47	1.77	1.86	2.19	1.86	2.14	2.42		2.37		
28	Thermal Engineering lab (120504 P)	2.70	2.70	2.67	2.82	2.72	2.83	2.60	2.71	2.75	2.72	2.74		2.70	
29	Machine Design lab (120505 P)	2.70	2.73	2.70	2.75	2.84	2.57	2.66	2.60	2.67	2.70	2.47	2.71	2.54	2.56
30	Minor Project-I (120506)	2.50	2.47	2.60	2.30	2.37	2.36	2.37	2.54	2.51	2.60	2.53	2.47	2.42	2.48
31	Summer Internship Project-II (120507)	2.74	2.71	2.82	2.84	2.35	2.65	2.59	2.73	2.35	2.82	2.83	2.83	2.69	2.71
32	Management (100005)	1.43	1.27	1.69	1.92	0.85	1.49	0.86	1.15	2.03	1.60		1.98		
33	(120601)	2.58	2.69	2.59	2.52	2.44	2.40	2.46	2.61	1.88	2.46	2.16	2.17	2.79	2.61
34	Vibration & Noise Engineering DE-1 (120611)	2.27	2.26	2.27	2.16	2.35	2.30	2.13	2.26	2.30	2.72	2.15	2.40	2.35	2.25
35	(120612)	2.30	2.27	2.29	2.31	2.34	2.25	2.32	2.31	2.34	2.25	2.32	2.33	2.30	
36	(120613)	2.35	2.36	2.39	2.35	2.35			2.30	2.38	2.38	2.35	2.37		
37	NPTEL/SWAYAM (120651)	2.32	2.33	2.31	2.30	2.38	2.38	2.38	2.39	2.32	2.42	2.20	2.34	2.25	2.33
38	Technology DE-2 NPTEL/SWAYAM	2.08	2.10	2.00	2.09	2.04	2.01	2.06	2.01	2.01	2.01	2.06	2.02	2.05	2.11
39	Disaster Management (100007)	2.15	2.23	2.20	2.20	2.31	2.24	2.26	2.16	2.27	2.26	2.18	2.39		
40	Minor Project-II (120605)	2.28	2.11	2.20	2.17	2.18	2.35	2.36	2.12	2.33	2.31	2.27	2.37	2.32	2.27
41	Advance Production Technology lab (120604 P)	2.80	2.72	2.77	2.85	2.83	2.86	2.90	2.75	2.73	2.71	2.85	2.81	2.91	2.72
42	Robotics OC-1 (900101)	2.27	2.33	2.23	2.16	2.16	2.34	2.20	2.24	2.16	2.29	2.24	2.51	2.30	2.27
43	Product Design OC-1 (900102)	2.22	2.25	2.27	2.33	2.51	2.09	2.09	2.25	1.81	2.37	2.23	2.19	2.16	2.21
44	(120711)	2.27	2.25	2.30	2.30	2.16	2.27	2.28	2.24	2.32	2.26	2.25	2.22	2.32	2.24
45	DE-3 (120713)	2.15	2.20	2.23	2.10	2.19	2.21	2.15	2.23	2.21	2.15	2.31	2.13	2.19	2.18
46	TQM DE-3 (120714)	2.13	2.08	2.07	2.00	2.23	2.15	2.06	2.11	2.15	2.15	2.16	2.11	2.15	2.06
47	Intellectual Property Rights (100008)	2.31	2.30	2.37		2.41	2.24	2.41	2.33	2.24	2.20	2.44	2.30		
48	Reliability and Vibration Lab (120705)	2.09	2.09	2.21	2.19	2.18	2.10	2.25	2.31	2.30	2.20	2.15	2.17	2.21	2.12
49	Summer Internship Project - III (120706)	2.19	2.19	2.17	2.22	2.19	2.17	2.19	2.20	2.14	2.18			2.20	2.19
50	Creative Problem Solving (120707)	2.41	2.26	2.48	2.23	2.52	2.40	2.38	2.24	2.44	2.26	2.25	2.26	2.41	2.28
51	Industrial Automation OC-2 (900203)	2.21	2.40	2.36	2.38	2.29	2.41	2.46	2.60	2.41	2.22	2.40	2.23	2.48	2.30
52	Solar Energy OC-2 (900204)	2.31	2.31	2.34	2.14	2.34	2.31	2.22	2.29	2.35	2.27	2.23	2.40	2.23	2.31
53	Applications OC-3 (900214)	2.76	2.75	2.59	2.71	2.69	2.74	2.69	2.66	2.76	2.77	2.72	2.75	2.83	
54	Maintenance Engineering OC-3 (900215)	2.35	2.38	2.42	2.41	2.43	2.55	2.43	2.43	2.48	2.39	2.48	2.35	2.35	2.58
55	Internship/Project (120801)	2.96	2.96	2.96	2.96	2.96	2.96	2.96	2.96	2.96	2.96	2.96	2.96	2.96	
56	Professional Development (120802)			2.43	2.42	2.41	2.43	2.40	2.40	2.50	2.40	2.40	2.39	2.35	2.42

INDIRECT PO ATTAINMENT	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO 1	PSO 2
Exit Survey	2.16	2.13	2.09	2.16	2.06	2.16	2.08	2.30	2.18	2.34	2.30	2.14	2.18	2.23
Alumni Survey	2.00	2.05	1.93	2.02	1.86	2.04	1.90	1.93	2.10	2.12	1.93	2.05	2.01	1.76
Employer Survey	1.84	1.93	1.90	1.74	1.61	1.66	1.87	1.89	1.82	1.90	1.68	1.31	1.66	1.58
Indirect PO Attainment	2.00	2.03	1.98	1.97	1.84	1.95	1.95	2.04	2.03	2.12	1.97	1.83	1.95	1.86

Madhav Institute of Tecnology & Science Gwalior-5

Department : Mechanical Engineering	Year 2017-2021
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PO ATTAINMENT	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO 1	PSO 2
Direct PO Attainment	2.34	2.34	2.36	2.34	2.32	2.34	2.34	2.31	2.35	2.36	2.38	2.36	2.38	2.34
Indirect PO Attainment	2.00	2.03	1.98	1.97	1.84	1.95	1.95	2.04	2.03	2.12	1.97	1.83	1.95	1.86
Overall PO Attainment	2.27	2.28	2.28	2.27	2.23	2.27	2.26	2.26	2.29	2.31	2.30	2.25	2.29	2.24

