GMR Institute of Technology
An Autonomous Institute Affiliated to JNTU-GV

1.2.1(B) Minutes of relevant Academic Council/BOS meetings highlighting the name of the New Courses introduced

Department of Information Technology

INDEX

Department of Information Technology
Minimum Credits to be earned: 160 (for Regular Students)
127 (for Lateral Entry Students)

No	Course Code	Course	POs	Contact Hours			
				L	**T**	**P**	**C**
First Semester(Pattern-I/Pattern-II)							
1	23PYX01/ 23CYX01	Engineering Physics/Chemistry	1,2,7,10,12/1, 2,6,7,12	3/3	0	0	3/3
2	23MAX01/ 23MAX02	Linear Algebra & Calculus/Differential Equations and Vector calculus	1,2,3,4,12/1,2, 3,4,12	3/3	0	0	3/3
3	23BEX01/ 23BEX02	Basic Electrical and Electronics Engineering/ Basic Civil & Mechanical Engineering	1,3,6,7,9,12/1, 2,3,6,7,8,12	3/3	0	0	3/3
4	23BEX03	Introduction to Programming	1,2,3,12	3	0	0	3
5	23BEX04/ 23HSX01	Engineering Graphics/Communicative English	1,5,10,12/1,9, 10,11	2/2	0	2/0	3/2
6	23PYX02/ 23CYX03	Engineering Physics Lab/Chemistry	4,6,9,11/1,2,6 ,7,9,12	0	0	2/2	1
7	23BEX05/ 23BEX06	Electrical & Electronics Engineering workshop/Engineering Workshop	4,5,6,9/12/1, 9,12	0	0	3/3	1.5/1.5
8	23BEX07	Computer Programming Lab	2,3,4,12	0	0	3	1.5
9	23HSX11	-/ECA (Yoga / Sports)	-	-	-	-/1	-/0.5
10	23HSX12	-/CCA (NSS/NCC/Community)	-	-	-	-/1	-/0.5
11	23BEX08	IT Workshop/-	1,2,3,4,9,12	0	0	2/-	1/-
12	23HSX02	-/Communicative English Lab	1,9,10,11,12	0	0	-/2	-/1
			Total	**14/14**	**0**	**12/12**	**20/20**
Second Semester(Pattern-I/Pattern-II)							
1	23HSX01/ 23BEX04	Communicative English/Engineering Graphics	10,12/1,5,10	2/2	0	0/2	2/3
2	23MAX02/ 23MAX01	Differential Equations and Vector calculus/Linear Algebra & Calculus	1,2,3,4/12/1, 2, 3,4,12	3/3	0	0	3/3
3	23CYX01/ 23PYX01	Chemistry/Engineering Physics	1,2,6,7/12/1, 7,10,12	3/3	0	0	3/3
4	23BEX02/ 23BEX01	Basic Civil & Mechanical Engineering/Basic Electrical and Electronics Engineering	1,2,3,6,7,8/12 /1,3,6,7,9,12	3/3	0	0	3/3
5	23CS201	Data Structures (CSE, CSE-AI&DS, CSE-AI&ML, IT)	1,2,3,12, PSO1	3/3	0	0	3/3
6	23CYX03/ 23PYX02	Chemistry Lab/Engineering Physics Lab	1,6,7,9/12/4, 6, 9,11,12	0	0	2/2	1/1
7	23BEX06/ 23BEX05	Engineering Workshop/Electrical & Electronics Engineering workshop	9,12/1,4,5	0	0	3/3	1.5/1.5
8	23BEX08	IT Workshop/-	1,2,3,4,9,12	0	0	2/-	1/-
9	23BEX02	Communicative English Lab/-	1,9,10,11,12	0	0	2/-	1/-
10	23CS202	Data Structures Lab (CSE, CSE-AI&DS, CSE-AI&ML, IT)	2,3,4,12,PSO1	0	0	3/3	1.5/1.5
11	23HSX11	-/ECA (Yoga / Sports)	-	-	-	-/1	-/0.5
12	23HSX12	-/CCA (NSS/NCC/Community Service)	-	-	-	-/1	-/0.5
			Total	**14/14**	**0**	**12/12**	**20/20**

1

Third Semester

1	23IT301	Python Programming and Applications	1,2,3,4,5,12, PSO1, PSO2	3	0	-	3
2	23CS304	Digital Logic Design	1,2,3,5	3	-	2	4
3	23CS305	Discrete Mathematical Structures	1,2,3,12, PSO1	3	0	-	3
4	23IT304	Database Management Systems	1, 2, 3, 4,12, PSO2	3	0	-	3
5	23IT305	Data Communication Systems	1, 2, 3,4,7, 12, PSO1	3	0	-	3
6	23IT306	Object Oriented Programming through Java	1,2,3,4,5, 12, PSO1, PSO2	3	-	2	4
7	23IT307	Python Programming and Applications Laboratory	1,2,3,4,5,9,12, PSO1, PSO2	-	-	3	1.5
8	23IT308	Database Management Systems Laboratory	1, 2, 3, 4, 5, 9, PSO2	-	-	3	1.5
9	23ESX01	Employability Skills I	1,2,5,8,10,12	-	-	2	-
		Total		**19**	**0**	**12**	**23**

Fourth Semester

1	23MA405	Probability and Statistics	1,2	3	0	-	3
2	23CS403	Computer Organization and Architecture	1,2,12, PSO1	3	0	-	3
3	23IT403	Operating Systems	1,2,3,4, 7,12	3	0	-	3
4	23CS303	Design and Analysis of Algorithms	1,2,3,PSO1	3	-	-	3
5	23IT405	Web Technologies	1,2, 3, 5, PSO1, PSO2	3	-	2	4
6	23CS307	Design and Analysis of Algorithms Lab	2,3,4,12,PSO1	-	-	3	1.5
7	23IT407	Operating Systems Laboratory	1,2, 3, 5, 9	-	-	3	1.5
8	23ESXO1	Employability Skills I	1,2,5,8,10,12	-	-	2	2
		Total		**15**	**0**	**10**	**21**

Fifth Semester

1	23IT501	Computer Networking	1,2,4, 5, 12, PSO1	3	-	2	4
2	23IT502	Artificial Intelligence	1, 2,3,4, PSO1, PSO2	3	0	-	3
3	231T503	Cloud Computing	1,2,3,4 5, 6, 7, 8, PSO2	3	0	-	3
4	23IT504	Software Engineering Principles	1,2,3,4,5, PSO2	3	-	2	4
5		Elective I(Professional Elective)		3	0	-	3
6		Elective II (Open Elective I)		3	0	-	3
7	23IT507	Cloud Computing Lab	1, 2,3, 4, 5, 9, PSO1	-	-	3	1.5
8	23TPX01	Term Paper	1, 4, 10, 12	-	-	3	1.5
9	23ESX02	Employability Skills II	1,2,5,8,10,12	-	-	2	-
10	23SIX01	Summer Internship #I	1, 2, ,8, 10, 12				1
		Total		**19**	**0**	**12**	**24**

Sixth Semester

1	23HSX10	Engineering Economics and Project Management	1,10,11	3	0	-	3
2	23IT602	Automata and Compiler Design	1,2,3,4, 12	3	0	-	3
3	23IT603	Machine Learning	1, 2,3,4, PSO1, PSO2	3	0	-	3
4		Elective III (Professional Elective)		3	-	2	4
5		Elective IV (Open Elective II)		3	0	-	3

6	23IT606	Machine Learning Lab using Python	1,2,3,4,5,9 PSO1, PSO2,	-	-	3	1.5
7	23MPX01	Mini Project	All	-	-	3	1.5
8	23ESX02	Employability Skills II	1,2,5,8,10,12	-	-	2	2
9	23ATX01	Environmental Studies	1, 6, 7, 12	-	-	-	-
10	23ATX02	Professional Ethics and Human Values	----------------	-	-	-	-
11		Audit Course	----	-	-	-	-
			Total	**15**	**0**	**8**	**21**

Seventh Semester							
1		Elective V(Professional Elective)		3	0	-	3
2		Elective VI (Professional Elective)		3	0	-	3
3		Elective VII (Open Elective III)		3	0	-	3
4	23PWX01	Project	All	-	-	16	8
5	23SIX02	Summer Internship #II	1, 2, 5, 6, 10, 12	-	-	-	1
			Total	**9**	**0**	**16**	**18**

Eighth Semester							
1		Elective VIII (Professional Elective)		-	-	-	3
2		Elective IX (Open Elective IV)		-	-	-	2
3	23FIX01	Full Semester Internship (FSI)	1, 2, 5, 8, 9,10, PSO1,PSO2	-	-	-	8
			Total	**-**	**-**	**-**	**13**

List of Electives

Elective I							
Career Path I, II, III and Other Core Electives							
1	23CSC11	Artificial Neural Networks(AI&ML)	1, 2, 3, 5, 12	3	0	-	3
2	23CSC21	Backend Programming Languages (Full Stack Developer)	1,2,3,5,PSO1,PSO2	3	0	-	3
3	23ITC31	Fundamentals of Security (Cyber Security)	1,2,3,4, PSO1, PSO2	3	0	-	3
4	23IT004	Computer Graphics and Multimedia	2, 3, 5	3	0	-	3
5	23IT005	Information Theory and Coding	1,2,3,6,8	3	0	-	3
6	23IT006	Data Warehousing and Data Mining	2, 3, 4, 5, PSO1	3	0	-	3
7		MOOCs		-	-	-	3

Elective III							
Career Path I, II, III and Other Core Electives							
1	23CSC12	Deep Learning (AI&ML)	1,2,3,4,5,PSO1	3	-	2	4
2	23CSC22	Web Application Frameworks (Full Stack Developer)	1,2,3,5,PSO1,PSO2	3	-	2	4
3	23ITC32	Cybernet Security (Cyber Security)	1,3,4,12,PSO1, PSO2	3	-	2	4
4	23IT007	The Internet of Things	1, 2, 3, 5, 10	3	-	2	4
5	23CS008	Cryptogaphy and Network Security	5, 6, 8	3		2	4
6	23IT009	User Interface/ User Experience	1, 2, 3, 5, 10	3	-	2	4

Elective V							
Career Path I, II, III and Other Core Electives							
1	23CSC13	Natural Language Processing (AI & ML)	2,3,4,12,PSO1	3	0	-	3
2	23CSC23	Web Application Databases (Full Stack Developer)	1,3,5,PSO1	3	0	-	3
3	23ITC33	Cloud Security (Cyber Security)	1,2,4,8,12,PSO2	3	0	-	3
4	23EC602	Digital Signal Processing	1,2, PSO2	3	0	-	3
5	23IT010	Information Retrieval Systems	3,6,8	3	0	-	3
6	23CS005	Mobile Computing	1,3,8	3	0	-	3
7		MOOCs		-	-	-	3

		Elective VI					
1	23IT017	Social Network Analysis	2,4,5,12	3	0	-	3
2	23IT011	Real Time Operating Systems	2,3,12	3	0	-	3
3	23IT012	Digital Image Processing	3,5,6	3	0	-	3
4	23IT014	Distributed Systems	2, 7, 12	3	0	-	3
5	23CS012	Wireless Ad hoc Networks	1,2,3,6,7,10	3	0	-	3
6	23CS015	Software Project Management	1,2,3,11,12, PSO2	3	0	-	3
7		MOOCs		-	-	-	3
8	23BS004	Advanced Materials of Renewable Energy	1,7	3	0	-	3
9	23BS005	Applied Linear Algebra for Engineers	1,12	3	0	-	3
		Elective VIII: Professional Elective					
1	23CS014	Green Computing	2,3,6,7	-	-	-	3
1	23IT013	Design Patterns	2,3,5	-	-	-	3
3	23IT016	Professional Ethics	1, 6,8,12	-	-	-	3
4		MOOCs	-	-	-	-	3
		Audit Course					
1	23AT001	Communication Etiquette in Workplaces					
2	23AT002	Contemporary India: Economy, Policy and Society					
3	23AT003	Design The Thinking					
4	23AT004	Ethics and Integrity					
5	23AT005	Indian Heritage and Culture					
6	23AT006	Intellectual Property Rights					
7	23AT007	Introduction to Journalism					
8	23AT008	Mass Media Communication					
9	23AT009	Science, Technology and Development					
10	23AT010	Social Responsibility					
11	23AT011	The Art of Photography and Film Making					
12	23AT012	Gender Equality for Sustainability					
13	23AT013	Women in Leadership					
14	23AT014	Introduction to Research Methodology					
15	23AT015	Climatic Change and Circular Economy					

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MINUTES OF THE 20th ACADEMIC COUNCIL MEETING

Media	: Zoom (Online Meeting)
Date	: 15.06.2024 (Saturday)
Time	: 03:00 PM – 05:00 PM

MEMBERS PRESENT

Dr. C. L. V. R. S. V. Prasad	-	Chairman (Principal)
Dr. D. Rajya Lakshmi	-	Member
Mr.B.Chandra Bhushana Rao	-	Member
Dr. G. Jayasuma	-	Member
Dr. A. Venu Gopal	-	Member
Dr. P. Mallikarjuna Rao	-	Member
Dr. P. K. Jain	-	Member
Chair Person (BoS : Civil Engg.)	-	Member
Chair Person (BoS : EEE)	-	Member
Chair Person (BoS : Chem &Mech Engg.)	-	Member
Chair Person (BoS : ECE)	-	Member
Chair Person (BoS : CSE)	-	Member
Chair Person (BoS : IT)	-	Member
Chair Person (BoS : BS&H)	-	Member
Chair Person (BoS : AIML,AIDS)	-	Member
Dr.S.N.Dash(CDC-Head)	-	Member
Dr.V.Rambabu (Asso.Dean-Student Affairs)	-	Member
Dr. K.Ravindranadh (Asso.Dean-R&D)	-	Member
Dr.T.Prabhakar (Controller of Examinations)	-	Member
Dr.P.N.L.Pavani (Head -IQAC)	-	Member
Dr. M.V.Nageswara Rao(Asso.Dean-Academics)	-	Member Secretary

GRANT OF LEAVE OF ABSENCE

Dr. K. V. L. Subramaniam	-	Member
Mr. V. Paradesi Naidu	-	Member

Chairman welcomed all the members of the academic council and requested for the grant leave of absence for the above referred members. **(Item #1)**.

Member Secretary presented the action taken report for the 19th academic council meeting and received the confirmation for the minutes of 19th academic council meeting held on 06th June 2023 from all the esteemed members.

Also presented the action taken report for the approvals taken by circulation on 20.11.2023 and received the confirmation from all the esteemed members. **(Item #2 &3).**

Member Secretary presented the details of the overall Operations and performance of the Institution (Academic-Operations, Ranking, Achievements, Placements and Research) **(Item #4).**

Academic council members appreciated the efforts and initiatives taken up by the institute for the overall development and the ranking achieved. Congratulated the students who achieved credential in curricular and co-curricular activities.

ITEM No.: 5

Ratification of Semester end result for regular and supplementary examination for the academic year 2023-24 (II, IV, VI, VIII semesters) and 2023-24 (I, III, V, VII semesters) held during June 2023 to June 2024 for Students in B. Tech. and M.Tech Programs.

Member Secretary presented the results declared for the regular and supplementary examinations pertaining to semesters mentioned above for the students admitted during the different academic years under Academic Regulation AR16, AR19, AR20, AR21 and AR 23 and requested for the ratification of the results which were declared by the College academic committee in the presence of the JNTUGV representative.

- The members, after the detailed review, ratified the results of all the regular and supply examinations declared by the college academic committee as per the **Annexure I.**

ITEM No.: 6

Ratification of the PC eligibility list of the UG students admitted during the Academic Year 2020-21 & earlier batches who have successfully acquired the graduation requirements for the award of B. Tech. Degree with Honours , B.Tech. Degree with Minors in Computer Science and Engineering , and B.Tech. Degree as per the respective academic regulations at the time of admission.

Ratification of the PC eligibility list of the PG students admitted during the Academic Year 2021-2022 who have successfully acquired the graduation requirements for the award of M.Tech. Degree as per the respective academic regulations at the time of admission.

Member Secretary presented the (semester-wise & branch-wise) UG results of the 2020 admitted batch for all the semesters i.e from 1st to 8th semesters under Academic Regulation AR20 and who have acquired the graduation requirements and eligible for the issue of Provisional certificate.

Further, details of the students who have acquired graduation requirements and eligible for the issue of PCs pertaining to the batches admitted earlier to 2020 are presented.

The members reviewed the results (1st semester to 8th semester) of 2020 admitted batch students and approved the PC eligibility list of the student who will be graduating by June 2024 as per the academic regulations AR20. Apart from this, the PC eligible students from the earlier admitted students who have acquired graduation requirements were also approved as per the **Annexure II.**

Member Secretary also presented the (semester-wise & Specialisation-wise) results PG students admitted in the academic year 2021-22 for all the semesters' i.e from 1st to 4th semesters and who have fulfilled the M.Tech requirements and eligible for the issue of Provisional certificate.

The members reviewed the results (1st semester to 4th semester) of 2021 admitted batch PG students and approved the PC eligibility list of the students who will be graduating by June 2024 as per the **Annexure II.**

ITEM NO.:7

Ratification of the syllabus for the 7th & 8th semesters of CSE-AIML & CSE-AIDS as per AR21 academic regulations

HOD-CSE presented the recommendations of the Board of Studies (meeting held on 16th March 2024) of CSE-(Artificial Intelligence and Machine Learning) and CSE-(Artificial Intelligence and Data Science) regarding the detailed Syllabi for 7th & 8th semesters for AR21 regulations B. Tech. (Regular), B. Tech. (Honors) and B. Tech (Minor) Programs requesting for the ratification from the members of Academic Council

Members after deliberation ratified the syllabi for the 7th and 8th semesters as per the **Annexure III.**

ITEM NO.:08

Approval of the AR-23 Academic Regulations for 3rd, 4th, 5th, 6th ,7th and 8th semesters.

The member secretary presented the detailed course structure and syllabus from III to VIII semesters of AR23 regulations. The syllabus and course structure of I and II semesters are in line with the common guidelines suggested by JNTUGV.
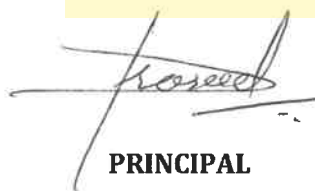
However, keeping in view the following points related the JNTUGV suggested course structure:

1. More academic load during 7th semester (21 credits)
2. Mandated FSI during 8th semester for all the students
3. No clear separation of credits for project work and FSI in 8th semester
4. Suggested FSI through online/virtual mode

All the respective BoS have recommended implementing the course structure of III to VIII semesters of AR21 which was Approved and ratified by AC during the meeting dated 13th July 2022 with the following changes to have credit balance.

- CC&EC activities which were available from III to VI semesters are removed as CC&EC activities were already pursued in the I and II semesters.
- One credit is reduced in the Open Elective of VIII semester
- Minor modifications in the syllabus in a few courses.

Members deliberated and ratified the course structure and syllabus for AR23 regulations as recommended by the respective BoS for all the eight UG programs. Details are attached in **Annexure-IV**

PRINCIPAL

Encl. Annexure I to IV

Copy to:

- All Members of the Academic Council
- Assoc.Dean(Academics)
- Controller of Examinations (CoE)
- File

PC Eligibility for
B.Tech Degree with Minors in Computer Science and Engineering

S.No	Department	Registered	Eligible for B.Tech Degree with Minors in Computer Science and Engineering
1	Civil Engineering	13	9
2	Electrical and Electronics Engineering	10	10
3	Mechanical Engineering	9	9
4	Electronics and Communication Engineering	30	26
5	Chemical Engineering	3	2
	Total	65	56

PC Eligibility - PG Students 2021 Admitted Batch

S.No.	Admitted Batch	PC Eligible Students	Eligibility Academic Year
1	2021 Admitted Batch	08	2023-24

Annexure – III

Syllabus for 7th & 8th semesters of CSE-AIML & CSE-AIDS

https://gmrit.edu.in/PDFs/curriculum/B.Tech_AIDS_Syllabus_AR21.pdf

https://gmrit.edu.in/PDFs/curriculum/B.Tech_AIML_Syllabus_AR21.pdf

Annexure – III

Academic Regulations (AR-23) for 3rd, 4th, 5th, 6th, 7th and 8th semesters

https://gmrit.edu.in/PDFs/curriculum/B.Tech_AIDS_Syllabus_AR23.pdf

https://gmrit.edu.in/PDFs/curriculum/B.Tech_AIML_Syllabus_AR23.pdf

https://gmrit.edu.in/PDFs/curriculum/B.Tech_Civil_Syllabus_AR23.pdf

https://gmrit.edu.in/PDFs/curriculum/B.Tech_EEE_Syllabus_AR23.pdf

https://gmrit.edu.in/PDFs/curriculum/B.Tech_CSE_Syllabus_AR23.pdf

https://gmrit.edu.in/PDFs/curriculum/B.Tech_ECE_Syllabus_AR23.pdf

https://gmrit.edu.in/PDFs/curriculum/B.Tech_Mech_Syllabus_AR23.pdf

https://gmrit.edu.in/PDFs/curriculum/B.Tech_IT_Syllabus_AR23.pdf