



CHARUSAT
CHAROTAR UNIVERSITY OF SCIENCE AND TECHNOLOGY

**FEEDBACK ANALYSIS
REPORT
OF STAKEHOLDERS
(2021-22)**

Academic Expert Feedback Analysis on Curriculum for Academic Year 2021-2022

Academic Expert Detail

Name	Name of Organization	Designation	Email Address
Prof. Vivek Dave.	PIET-MCA, FITCS, Parul University	Head of Department	vivekpdave.pietmca@gmail.com
Pratik B. Patel	SPCAM, SPEC (Bakrol)	Lecturer	pratikpatel118.cmpicamca15@gmail.com
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Dr. Ghanshyam Parmar	Natubhai V. Patel College of Pure and Applied Sciences, CVM University	Assistant Professor	ghanshyam@nvpas.edu.in
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Dr. Sweta V. Parmar	D.N.Institute,Anand	Assistant Professor	swetaparmar21@gmail.com
Maulik Patel	Navgujarat, Ahmedabad	Assistant Professor	maulik7001@gmail.com
Savdas Lakhnotra	J. & J. College of Science, Nadiad	Assistant Professor	slakhnotra@yahoo.com
Rutu Mohin Patel	D.D.I.C,VNSGU	Assistant Professor	Rnp.ddicas@gmail.com
Dr kalpesh Shah	ADIT,VVNagar	Assistant Professor	ec.kalpesh.shah@adit.ac.in
Tejas Parmar	A.N.Patel,Anand	Assistant Professor	tejash1107@gmail.com
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Dr.Mehul Patel	SPEC, VVNagar	Assistant Professor	mehul29978@gmail.com
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Mayur Patel	N.V.PAS	Assistant Professor	mayur@nvpas.edu.in

Dr.Jay Nanavati	SECOM,VVNagar	Assistant Professor	jaynanavati@gmail.com
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Dr. Chetan Dudhagra	Anand Agriculture,Anand	Assistant Professor	drchetan32@gmail.com
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Biraj Patel	G.H.Patel,VVNagar	Assistant Professor	birajpatel4@gmail.com
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Dr. Tejas Thakkar	NVPAS,CVM University,VVNagar	Assistant Professor	tth75@yahoo.com
Reema Patel	Cyber Security India, V.V.Nagar	Programmer	reemapatel9792@gmail.com
Ronak Brahmbhatt	SANPPGI, Sardar Patel University	Assistant Professor	brahmbhatt_ronakg@yahoo.co.in
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Dr. U K Jaliya	BVM,VVNagar	Assistant Professor	udesag.jaliya@bvmengineering.ac.in

According to Expert below listed points are the best part of Syllabus:

- Course structure and specially electives
- Balance of Technical and Conceptual Topics
- Elective subjects of University are relevant.
- It is quite as per the current learning scenario
- Coverage of Python course is very good.

According to Expert below listed subject need more focus:

- Add research related courses in the curriculum such as Artificial Intelligence
- Strong conceptual based should be formed for all the core courses.
- All subjects are in detail.
- Foundational Subjects

Number of Academic Peers : 38 (BCA:11 + BSc-IT: 9 + MCA: 8 + MSc-IT: 10)

Scale : 5:Excellent, 4:Very Good, 3:Good, 2:Satisfactory, 1:Poor

Average = ((a*5)+(b*4)+(c*3)+(d*2)+(e*1))/total responses

% Response = (100 *Average)/ 5

Feedback Analysis on BCA Curriculum

Sr. No.	Criteria	5	4	3	2	1	Average	%Response
1	Learning value (in terms of skills, concepts, knowledge, analytical abilities, or broadening perspectives)	4	6	1	0	0	4.09	81
2	Applicability/relevance to real life situations	4	7	0	0	0	4.36	87
3	Depth of the course content	9	2	0	0	0	4.81	96
4	Extent of coverage of course	3	7	1	0	0	4.18	80
5	Relevance/learning value of project/report]	9	2	0	0	0	4.81	96

Feedback Analysis on B.Sc.(IT) Curriculum

Sr. No.	Criteria	5	4	3	2	1	Average	%Response
1	Learning value (in terms of skills, concepts, knowledge, analytical abilities, or broadening perspectives)	8	1	0	0	0	4.8	97
2	Applicability/relevance to real life situations	6	2	1	0	0	4.5	90
3	Depth of the course content	4	5	0	0	0	4.4	88
4	Extent of coverage of course	6	2	1	0	0	4.4	88
5	Relevance/learning value of project/report]	4	4	1	0	0	4.3	86

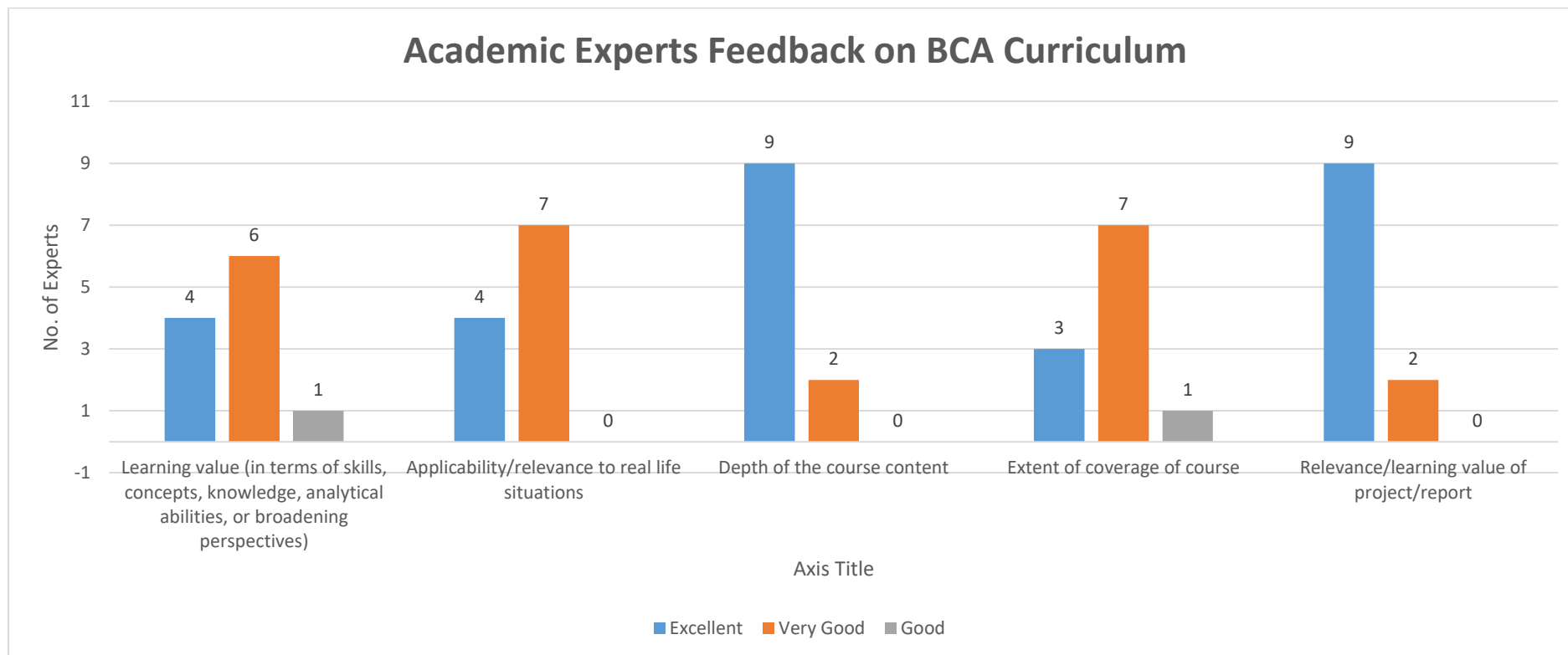
Feedback Analysis on MCA Curriculum

Sr. No.	Criteria	5	4	3	2	1	Average	%Response
1	Learning value (in terms of skills, concepts, knowledge, analytical abilities, or broadening perspectives)	4	4	0	0	0	4.5	90
2	Applicability/relevance to real life situations	2	5	1	0	0	4.1	82
3	Depth of the course content	8	0	0	0	0	4.0	80
4	Extent of coverage of course	2	6	0	0	0	4.2	84
5	Relevance/learning value of project/report]	4	2	2	0	0	4.2	84

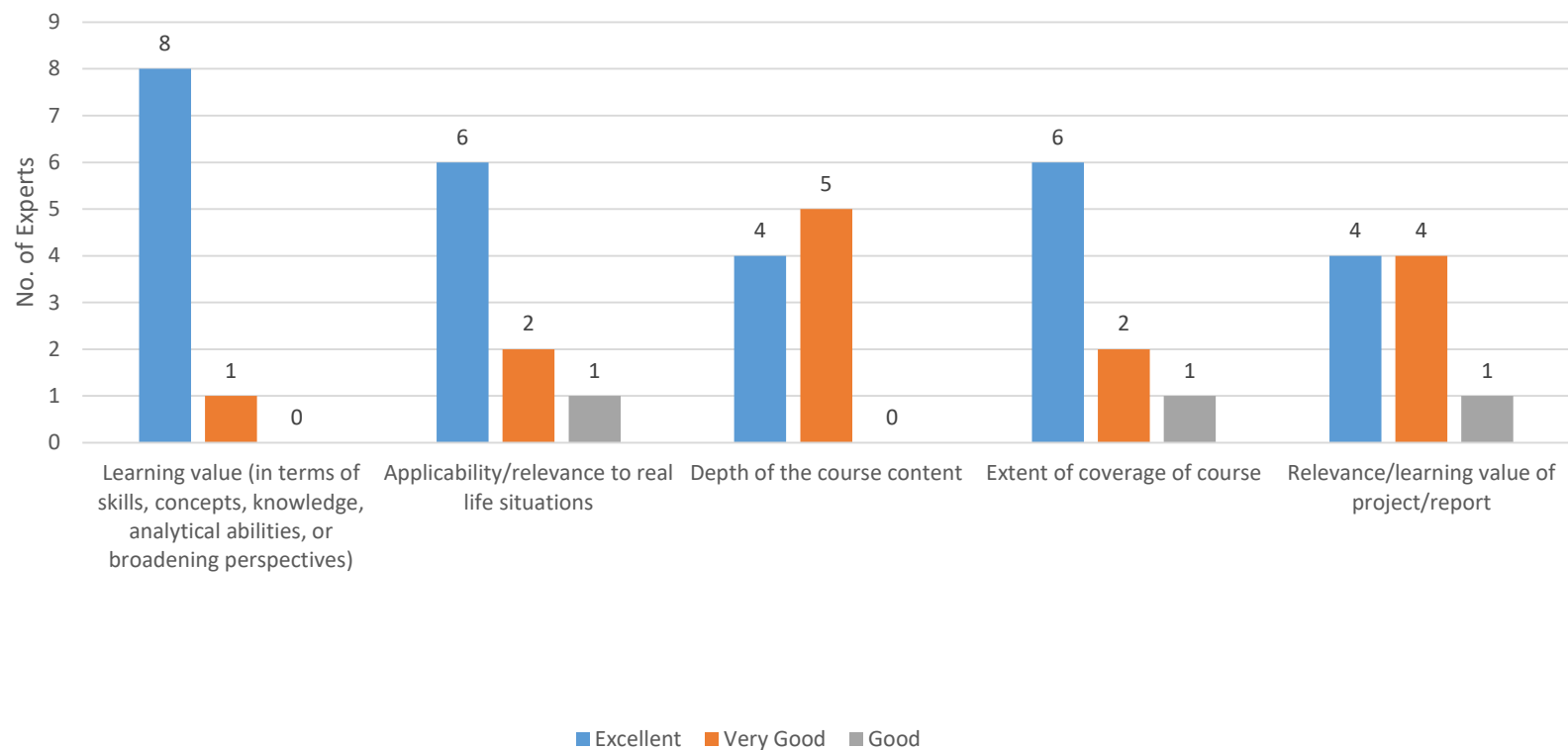
Feedback Analysis on M.Sc.(IT) Curriculum

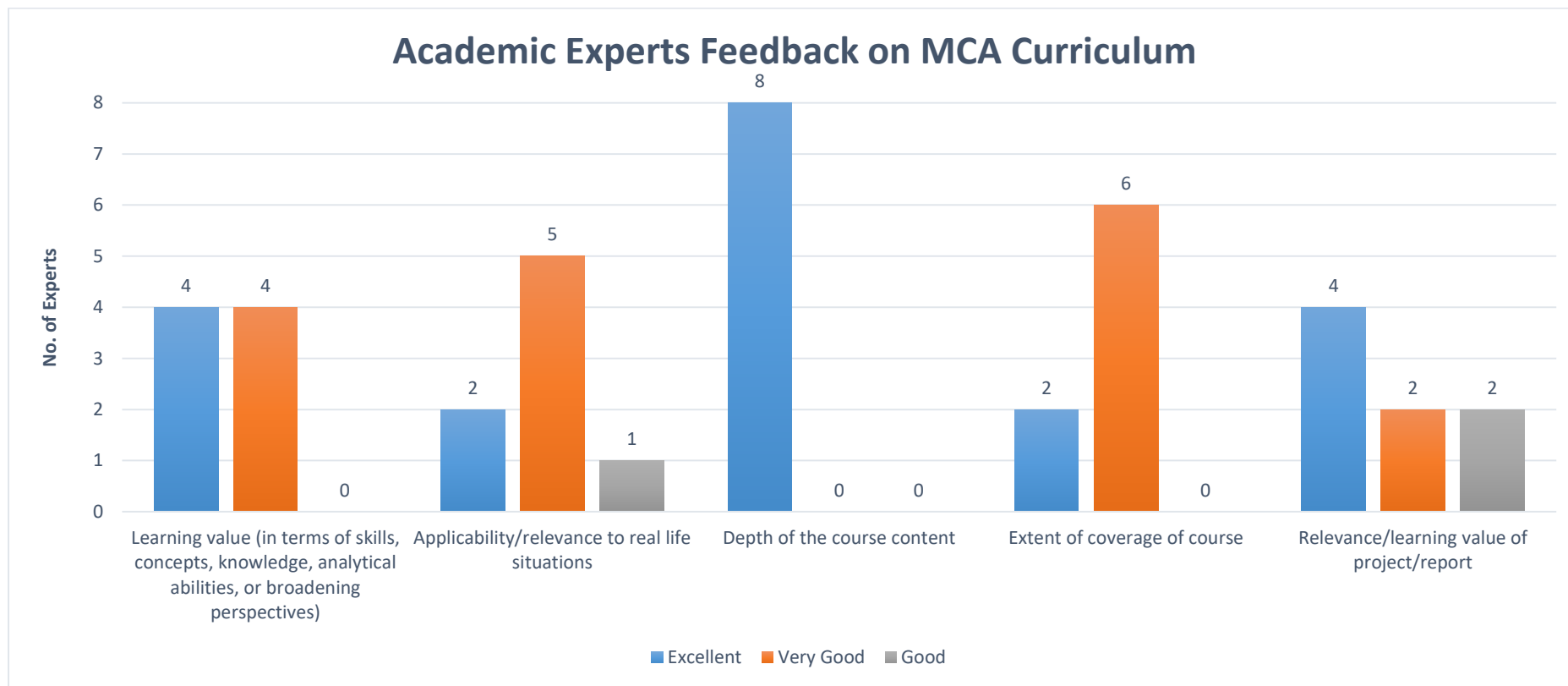
Sr. No.	Criteria	5	4	3	2	1	Average	%Response
1	Learning value (in terms of skills, concepts, knowledge, analytical abilities, or broadening perspectives)	4	6	0	0	0	4.4	88
2	Applicability/relevance to real life situations	3	7	0	0	0	4.3	86
3	Depth of the course content	8	1	1	0	0	4.7	94
4	Extent of coverage of course	2	8	0	0	0	4.2	84
5	Relevance/learning value of project/report]	7	2	1	0	0	4.6	92

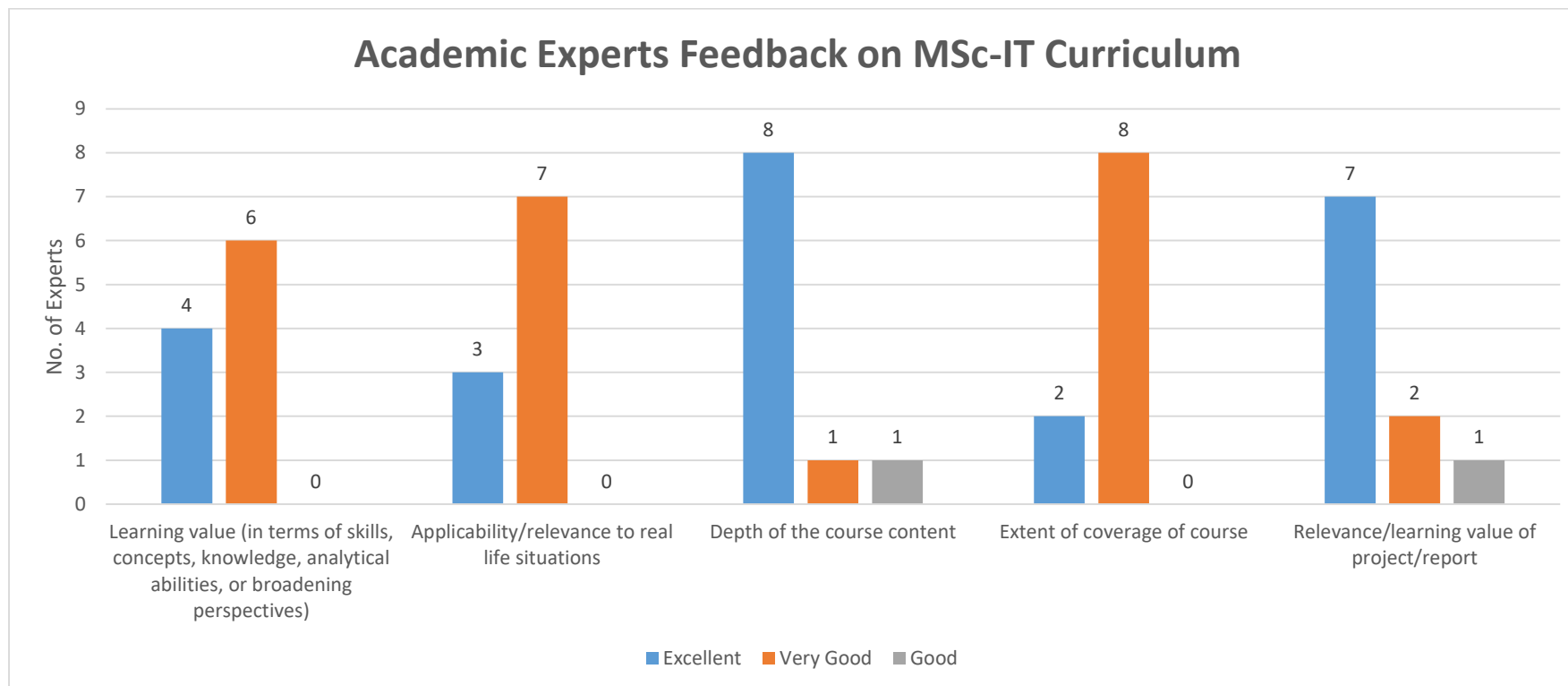
Programme Wise Feedback Analysis



Academic Experts Feedback on BSc-IT Curriculum







Smt. Chandaben Mohanbhai Patel Institute of Computer Applications

Alumni Feedback Analysis

Alumni Feedback Analysis on Curriculum for Academic Year 2021-2022

Alumni Detail

No	Name	Name of Organization	Designation	Contact Number	Email
1	Kavin Shah	Intech, Gandhinagar	Tech Lead	9725082555	kavin.shah.88@gmail.com
2	Vijay Sharma	Contis, Ahmedabad	Team Lead	9428121592	vijay.jangid07@gmail.com
3	Harsh Shah	Dev Information Technology Limited	Sr. Android Developer	9924237090	harshtrivedi116@gmail.com
4	Vyom Amin	Dhyey Technologies Pvt. Ltd.	Microsoft Dynamics Consultant	9998823668	vishnu@dhyey.com
5	Vimal Patel	Infostretch	Senior Engineering Manager	9979874557	patel.vimal82@gmail.com
6	Umag Bhatt	All Scripts	Senior Software Engineer	9998326583	bhatt.umang7@gmail.com
7	Nita Lokwani	IBM	Senior Systems Engineer	7698252404	nitalokwani@gmail.com
8	Chirag Patel	Innovate Tax Private	Technical Consultant	9825626845	chirag_mca_2005@yahoo.co.in
9	karan patel	System Level Solutions (India) Pvt. Ltd	Software Engineer	8866887448	karan.in@gmail.com
10	Dhruvil Upadhyay	Lodestone	QA Group Leader	9909518741	upadhyay.dhruvil@gmail.com

According to Alumni below listed points are the best part of Syllabus:

- Object oriented programming is core concept
- Operating system concepts should be clear
- System analysis and design is very important
- Mathematical and Statistical courses are very good
- Python is very helpful as it provides very good libraries.
- Advance java is very helpful.

According to Alumni below listed subject need more focus:

- Software Engineering and Software Quality Assurance.
- Mobile Application Development using cross platform and multiple OS.
- Network related subject should be covered in more detail.
- PI and javascript, css, advanced framework.
- Focus on Communication skills development
- It should not be tool oriented; it should be conceptual.

Number of Alumni: 10

Scale : 5:Excellent, 4:Very Good, 3:Good, 2:Satisfactory, 1:Poor

Average = ((a*5)+(b*4)+(c*3)+(d*2)+(e*1))/total responses

% Response = (100 * Average)/ 5

Feedback Analysis on BCA Curriculum

Sr. No.	Criteria	5	4	3	2	1	Average	%Response
1	Learning value (in terms of skills, concepts, knowledge, analytical abilities, or broadening perspectives	4	6	0	0	0	4.4	88
2	Applicability/relevance to real life situations	2	7	1	0	0	4.1	82
3	Depth of the course content	7	2	1	0	0	4.6	92
4	Extent of coverage of course	3	7	0	0	0	4.3	86
5	Relevance/learning value of project/report]	7	2	1	0	0	4.6	92

Feedback Analysis on B.Sc.(IT) Curriculum

Sr. No.	Criteria	5	4	3	2	1	Average	%Response
1	Learning value (in terms of skills, concepts, knowledge, analytical abilities, or broadening perspectives	6	3	1	0	0	4.5	90
2	Applicability/relevance to real life situations	7	3	0	0	0	4.7	94
3	Depth of the course content	5	4	1	0	0	4.4	88
4	Extent of coverage of course	5	5	0	0	0	4.5	90
5	Relevance/learning value of project/report]	5	4	1	0	0	4.4	88

Feedback Analysis on MCA Curriculum

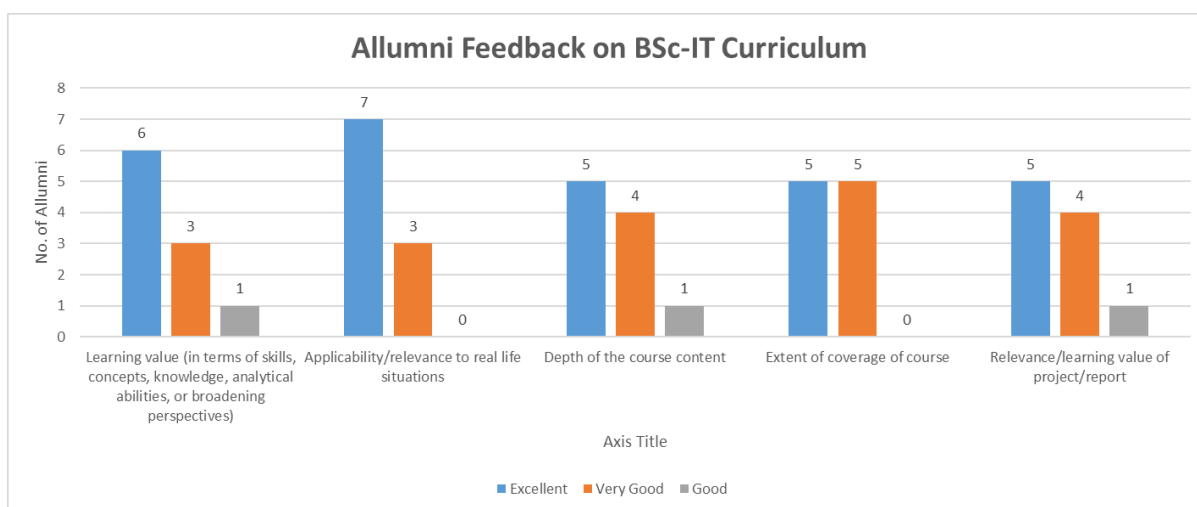
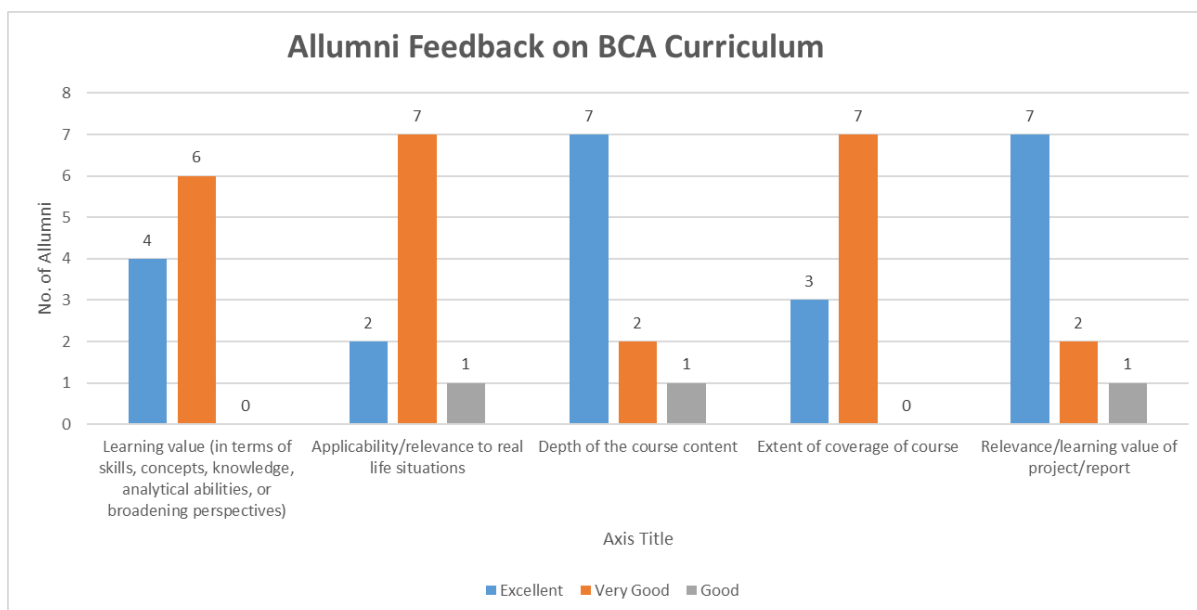
Sr. No.	Criteria	5	4	3	2	1	Average	%Response
1	Learning value (in terms of skills, concepts, knowledge,	4	6	0	0	0	4.4	88

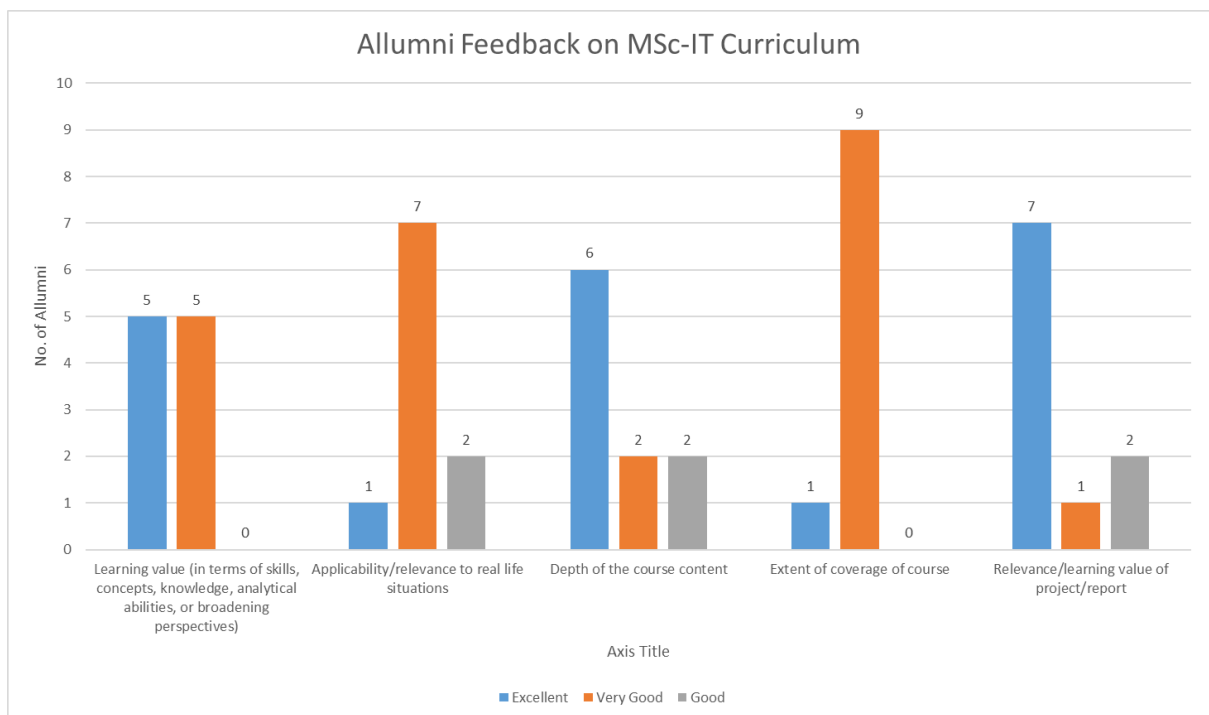
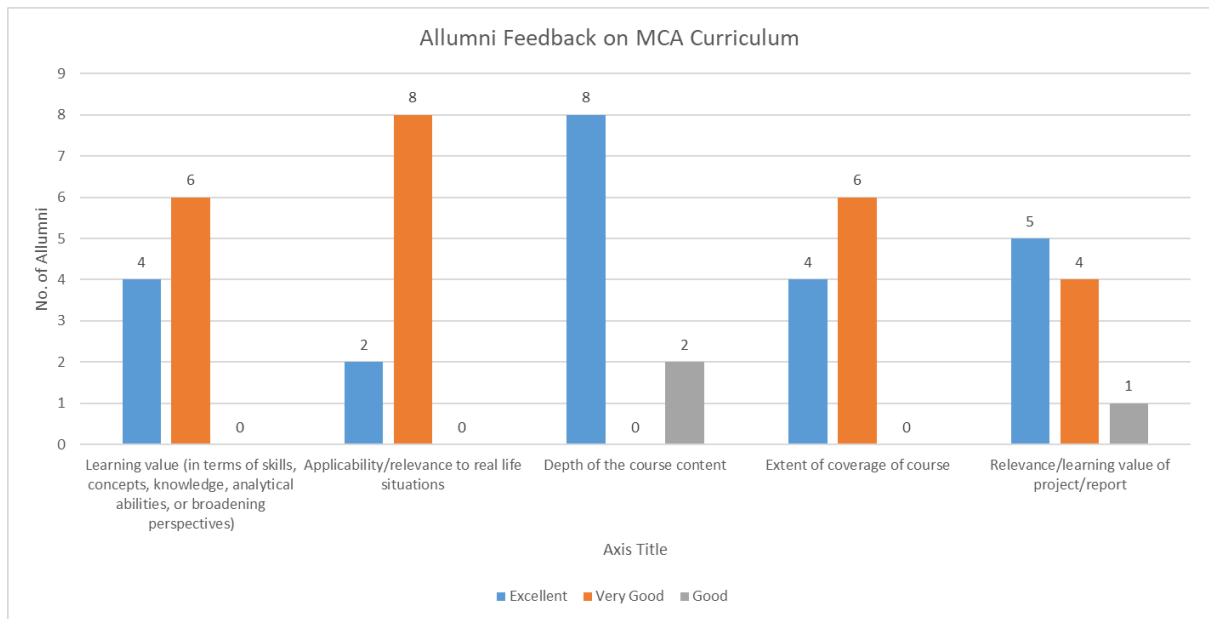
	analytical abilities, or broadening perspectives							
2	Applicability/relevance to real life situations	2	8	0	0	0	4.2	84
3	Depth of the course content	8	0	2	0	0	4.6	92
4	Extent of coverage of course	4	6	0	0	0	4.4	88
5	Relevance/learning value of project/report]	5	4	1	0	0	4.4	88

Feedback Analysis on M.Sc.(IT) Curriculum

Sr. No.	Criteria	5	4	3	2	1	Average	%Response
1	Learning value (in terms of skills, concepts, knowledge, analytical abilities, or broadening perspectives	5	5	0	0	0	4.5	90
2	Applicability/relevance to real life situations	1	7	2	0	0	3.9	78
3	Depth of the course content	6	2	2	0	0	4.4	88
4	Extent of coverage of course	1	9	0	0	0	4.1	82
5	Relevance/learning value of project/report]	7	1	2	0	0	4.5	90

Programme Wise Feedback Analysis





Smt. Chandaben Mohanbhai Patel Institute of Computer Applications

Employers Feedback Analysis

Employers Feedback Analysis on Curriculum for Academic Year 2021-2022

Employers Detail

No.	Expert	Name of Organization	Designation	Contact Number	Email
1	Karan Patel	SLS Solution	Sr. Software Engineer	8866887448	karan.in@gmail.com
2	Shantanu bhatt	SLS Solution	Jr.. Software Engineer	8866887448	santanu@gmail.com
3	Nikunj Ganatra	IT Path Solutions,	Director	9998207708	nikunj@itpathsolutions.com
4	Rakesh Patel	Simcon	Sr. Software Engineer	8490030260	skaira@simcon.com
5	Dhavat Shah	Dhavat Infotech	Director	9824646279	dhavat@gmail.com
6	Maulik Shah	TechnoGuide Infosoft Pvt Ltd	Director	9662533897	smauliks@gmail.com
7	Kilon Mehta	Apex Software House	Director	9879105930	director@apexsoftwarehouse.com
8	Dhruvil Upadhyay	Loadstone Software Pvt Ltd	Project Manager	9909518741	dhruvil.upadhyay@loadstone.com
9	Uresh Patel	Hyperlink Solutions	Team Leader	9426861585	uresh@hyperlinkinfosystem.com
10	Keval Shah	Hyperlink Solutions	Software Engineer	9879246691	kbshah@gmail.com
11	Keyur Patel	RK Websoft, Bakrol	Managing Director	9909916439	keyur5786@gmail.com

According to Expert below listed points are the best part of Syllabus:

- Embedded Programming
- Testing
- Frameworks

According to Expert below listed subject need more focus:

- Aptitude preparation for pre final semester students.
- Basic fundamental concepts should be covered in more detail.

Number of Academic Peers : 11

Scale : 5:Excellent, 4:Very Good, 3:Good, 2:Satisfactory, 1:Poor

Average = ((a*5)+(b*4)+(c*3)+(d*2)+(e*1))/total responses

% Response = (100 * Average)/ 5

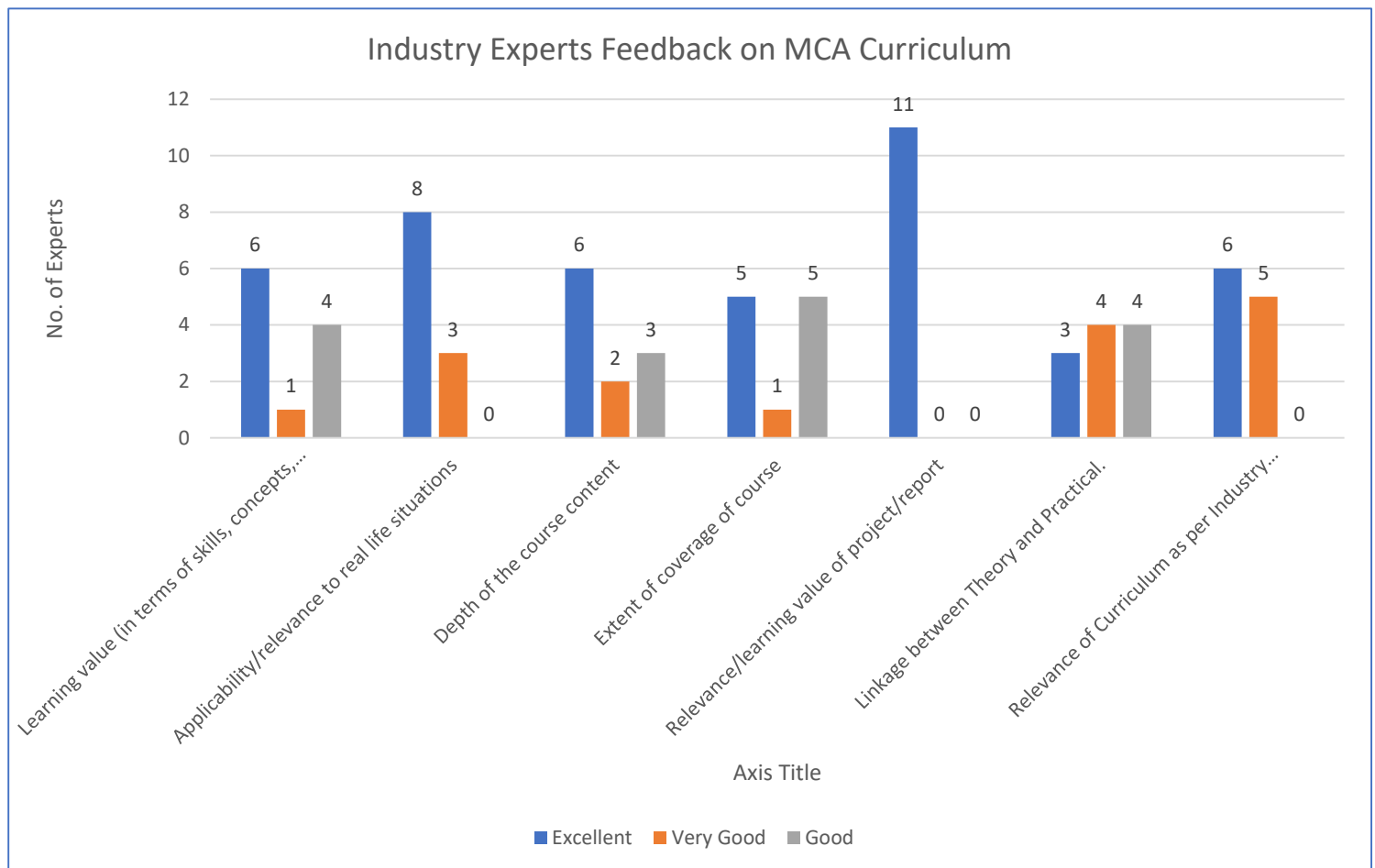
Feedback Analysis on MCA Curriculum

Sr. No.	Criteria	5	4	3	2	1	Average	%Response
1	Learning value (in terms of skills, concepts, knowledge, analytical abilities, or broadening perspectives	6	1	4	0	0	4.18	83.6
2	Applicability/relevance to real life situations	8	3	0	0	0	4.73	94.6
3	Depth of the course content	6	2	3	0	0	4.27	85.4
4	Extent of coverage of course	5	1	5	0	0	4	80
5	Relevance/learning value of project/report]	11	0	0	0	0	5	100
6	Linkage between Theory and Practical.	3	4	4	0	0	3.91	78.2
7	Relevance of Curriculum as per Industry Requirements	6	5	0	0	0	4.55	91

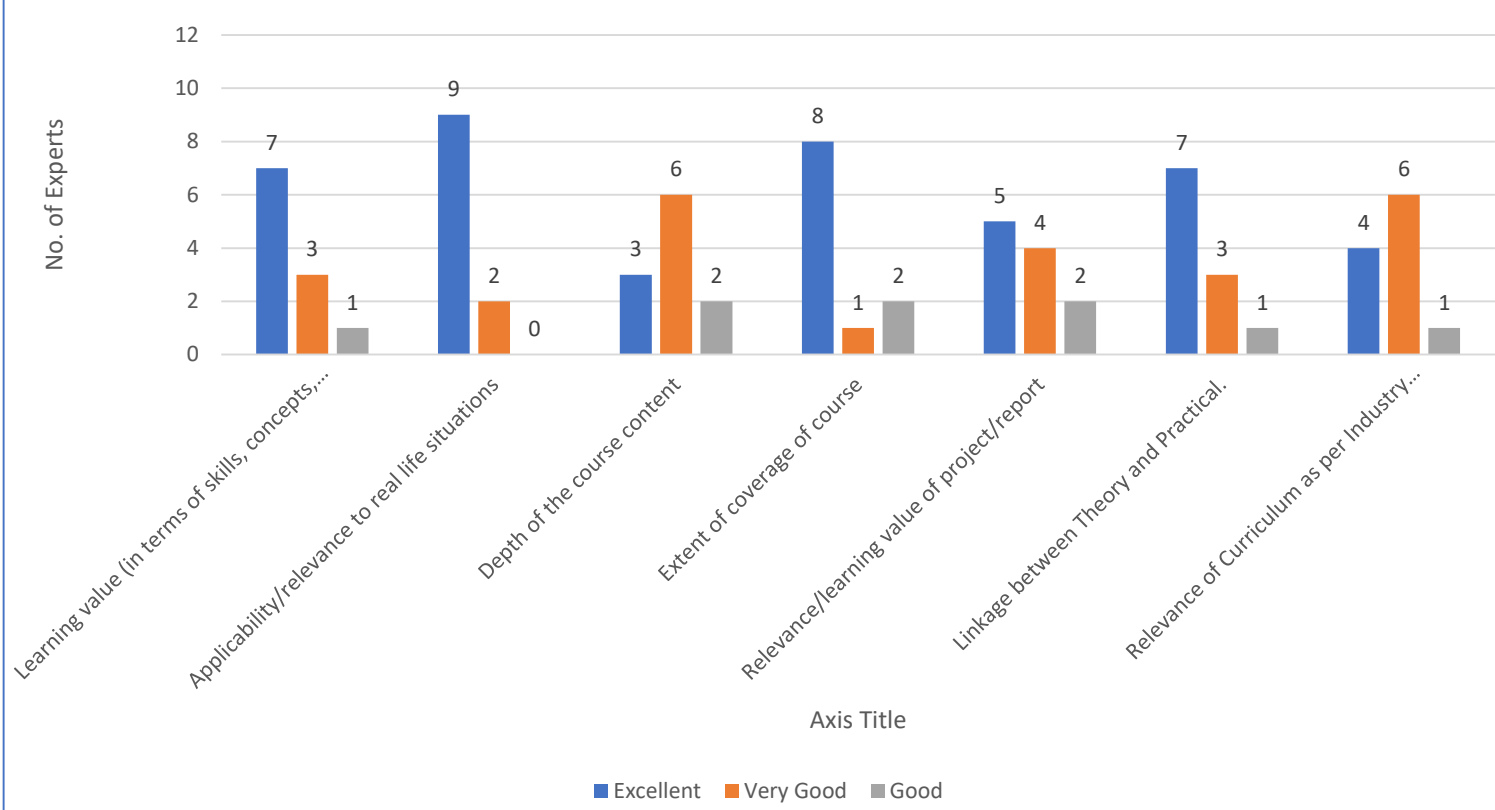
Feedback Analysis on M.Sc.(IT) Curriculum

Sr. No.	Criteria	5	4	3	2	1	Average	%Response
1	Learning value (in terms of skills, concepts, knowledge, analytical abilities, or broadening perspectives	7	3	1	0	0	4.55	91
2	Applicability/relevance to real life situations	9	2	0	0	0	4.82	96.4
3	Depth of the course content	3	6	2	0	0	4.09	81.8
4	Extent of coverage of course	8	1	2	0	0	4.54	90.8
5	Relevance/learning value of project/report]	5	4	2	0	0	4.27	85.4
6	Linkage between Theory and Practical.	7	3	1	0	0	4.55	91
7	Relevance of Curriculum as per Industry Requirements	4	6	1	0	0	4.27	85.4

Programme Wise Feedback Analysis



Industry Experts Feedback on MSc-IT Curriculum



Smt. Chandaben Mohanbhai Patel Institute of Computer Applications

Student Feedback Analysis

Student Feedback Analysis on Syllabus (Academic Year 2021 – 2022)

- **Suggestions given**

- Arrange expert sessions.
- Arrange more sessions for aptitude preparation.
- Arrange more workshops related to advanced topics.
- Most important, all facilities are always available for students to solve their issues.

Number of Students Responses: 222(BCA:95 + BSc-IT:50 + MCA:53 + MSc-IT:24)

Scale : 5:Excellent, 4:Very Good, 3:Good, 2:Satisfactory, 1:Poor

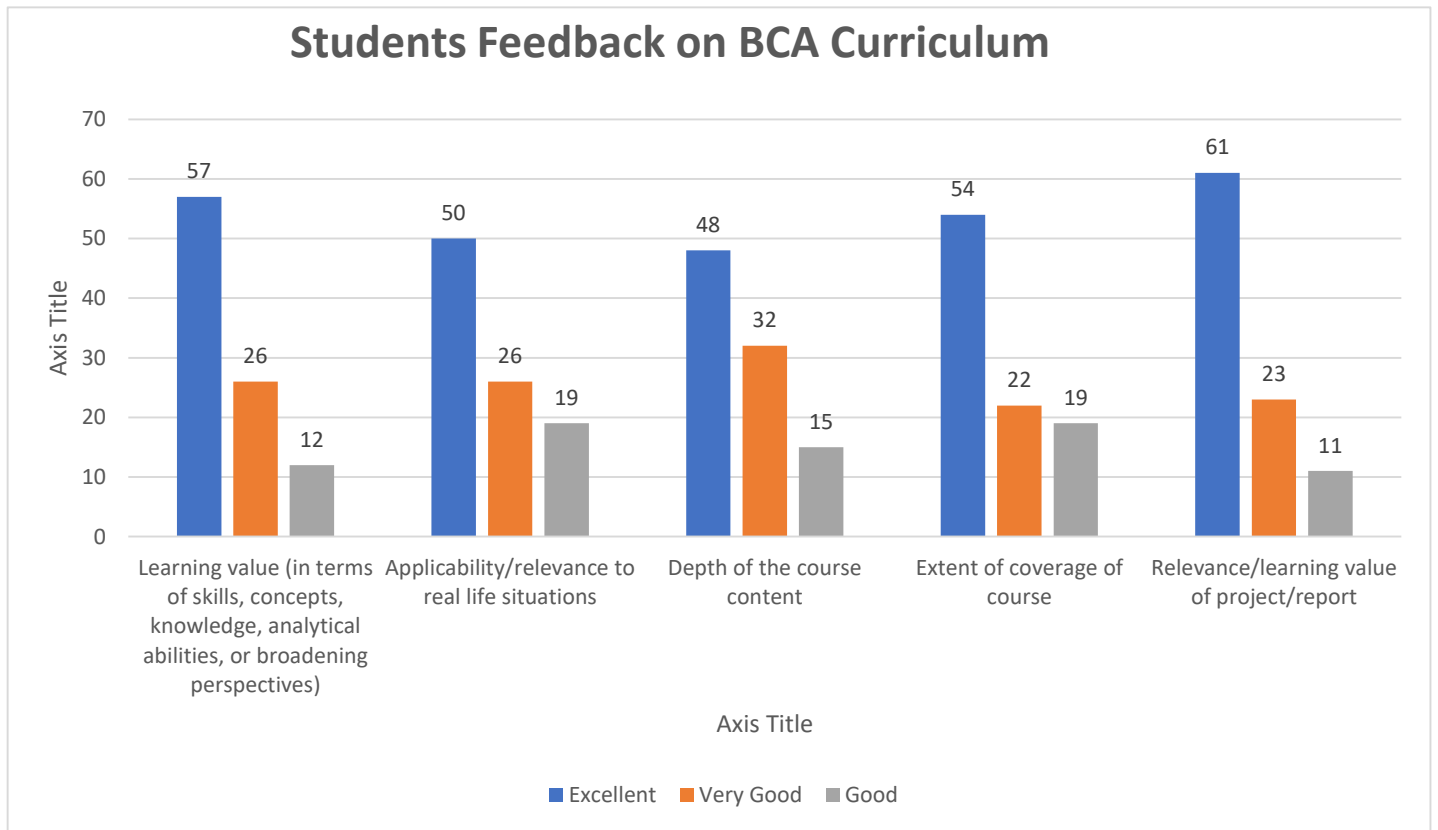
Average = ((a*5)+(b*4)+(c*3)+(d*2)+(e*1))/total responses

% Response = (100 *Average)/ 5

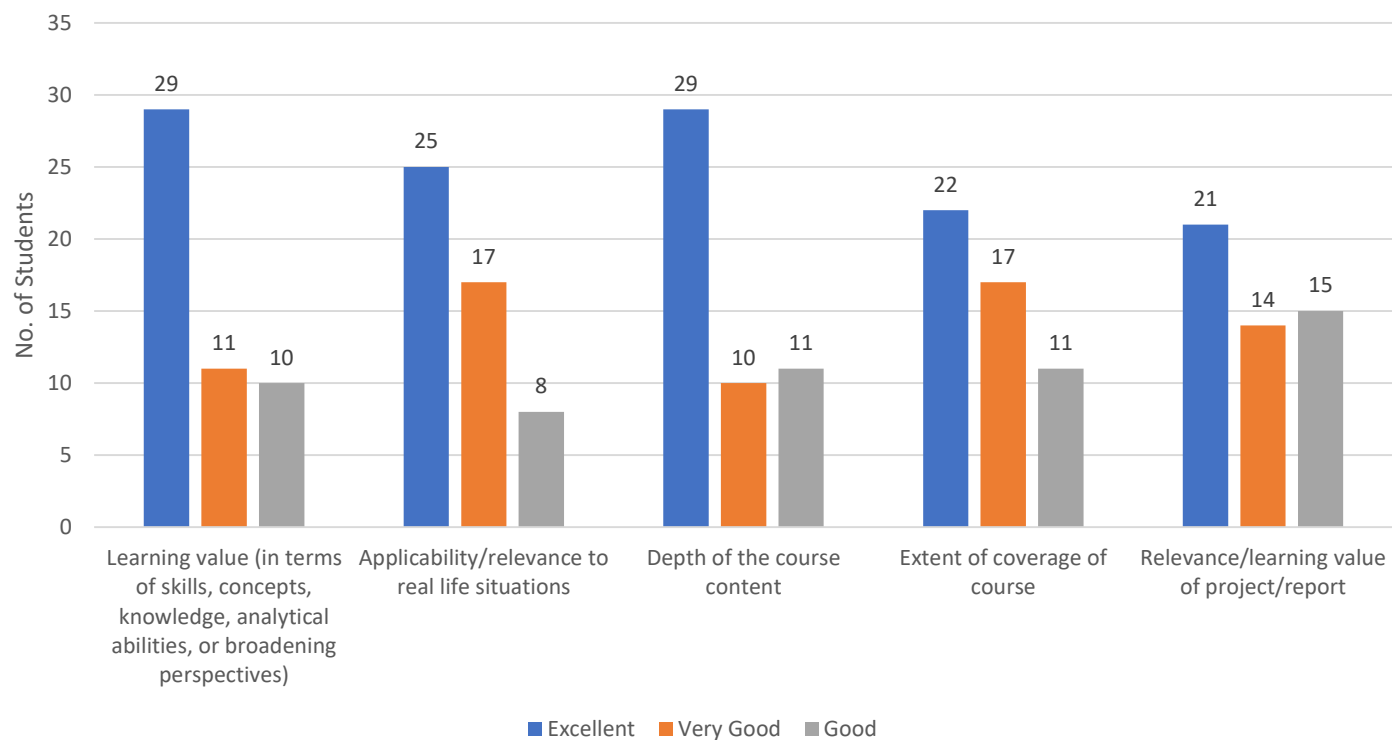
Feedback Analysis on Syllabus by Final Year Students

Sr. No.	Criteria	5	4	3	2	1	Average	%Response
1	Learning value (in terms of skills, concepts, knowledge, analytical abilities, or broadening perspectives	134	60	26	0	0	4.49	89.8
2	Applicability/relevance to real life situations	126	65	32	0	0	4.42	88.4
3	Depth of the course content	125	63	34	0	0	4.41	88.2
4	Extent of coverage of course	129	58	35	0	0	4.42	88.4
5	Relevance/learning value of project/report]	131	62	29	0	0	4.46	89.2

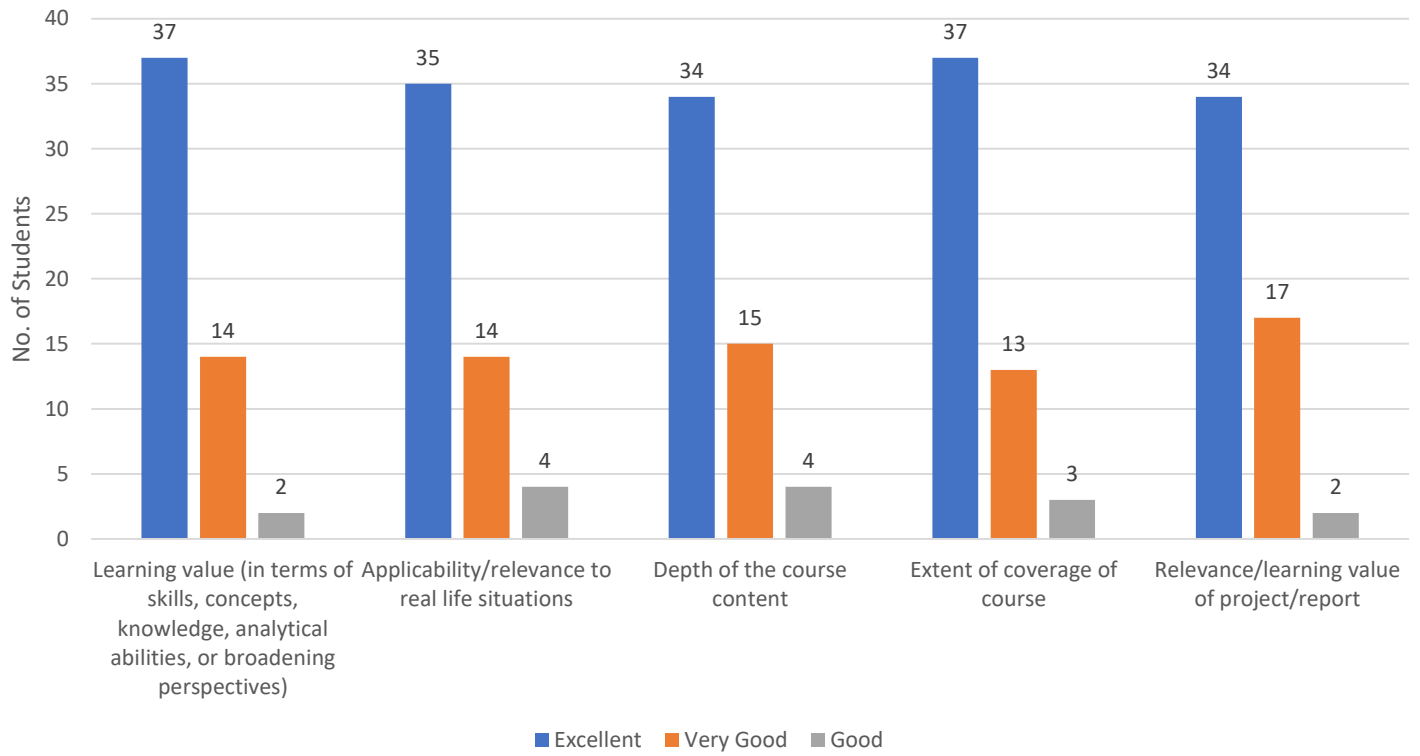
Programme Wise Feedback Analysis



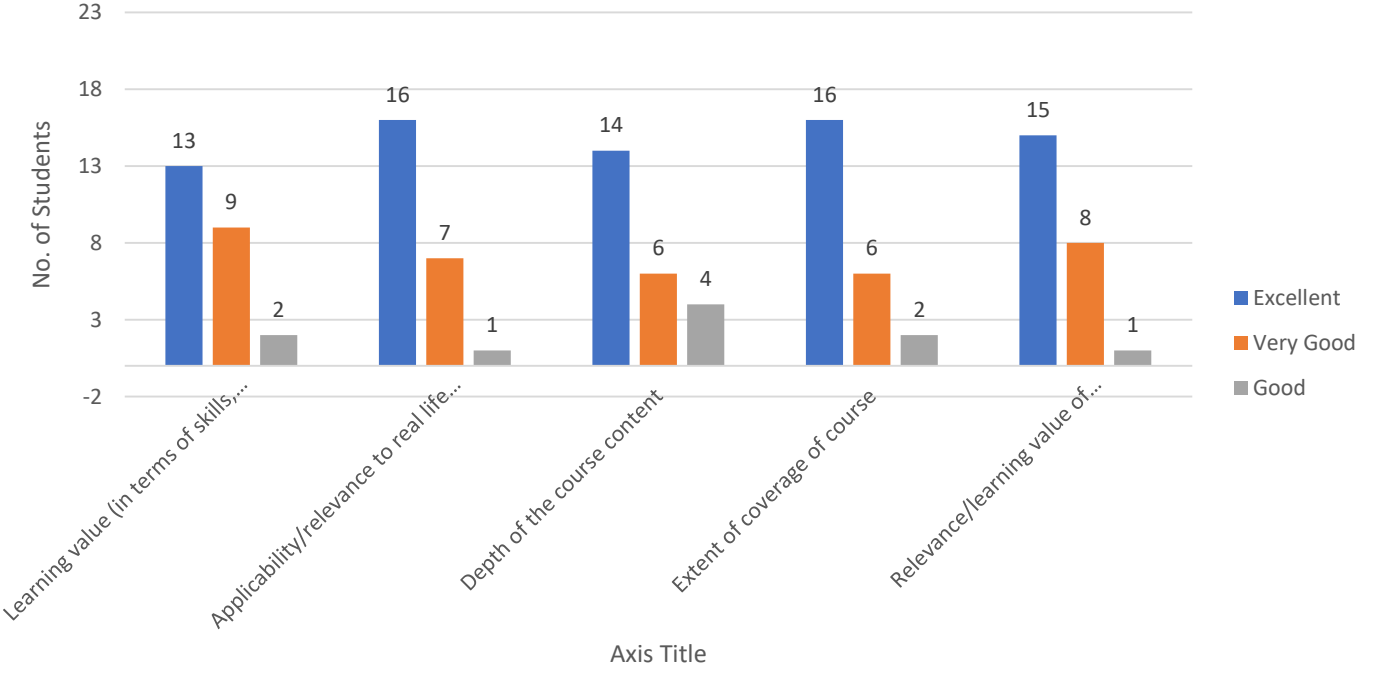
Students Feedback on BSc-IT Curriculum



Students Feedback on MCA Curriculum



Students Feedback on MSc-IT Curriculum





CHARUSAT
CHAROTAR UNIVERSITY OF SCIENCE AND TECHNOLOGY

**FEEDBACK ACTION TAKEN
REPORT OF
STAKEHOLDERS
(2021-22)**

Smt. Chandaben Mohanbhai Patel Institute of Computer Applications

Analysis of Feedback on the syllabus for the academic year 2021-2022 given by Stakeholders

Sr. No.	Stakeholder	Feedback Regarding Curriculum	Action Taken
1	Expert from Industry	Aptitude preparation for pre final semester students.	Conducted Student development program for placement preparation. Refer Annexure I for Student Development program mail.
		Basic fundamental concepts should be covered in more detail.	Bridge course is arranged for UG and PG students to groom the basic concepts of students. Refer Annexure II for bridge course mail and Annexure III for Departmental meeting.
2.	Academic Peers	Focus more on foundation subjects, subjects like java scripts, Machine learning and python framework should be covered in detail.	The syllabus includes courses like Artificial Intelligence, Data Science, Embedded Programming, Data Mining and Analytics, Python programming, etc. and few final semester students pursue projects on research based areas of Machine learning. Refer Annexure IV for BOS meeting
3	Alumni	Focus more on subjects like software engineering, mobile application using cross platform, communication skills, network related subject. It should not be tool oriented.	Topics other than syllabus are covered through workshop and expert lectures. Refer Annexure III for Departmental meetings and Refer Annexure IV for BOS meeting
4	Final Semester students	Introduce more framework. Arrange more workshops, Need to improve syllabus with new technology	We will arrange workshops and practical hands-on for extra topics. Refer Annexure III for Departmental meetings. Also, many subjects topics are changed with new topics and technology, Refer Annexure IV for BOS meeting and Annexure V for Teaching learning scheme for 2022-23 AY.



Smt. Chandaben Mohanbhai Patel Institute of Computer Applications

ANNEXURE-I

11/4/22, 4:19 PM

Charotar University of Science & Technology Mail - Fwd: Student Development Workshop 2022



amisha shingala <amishashingala.mca@charusat.ac.in>

Fwd: Student Development Workshop 2022

Nilay Vaidya <nilayvaidya.mca@charusat.ac.in>

Fri, Nov 4, 2022 at 4:15 PM

To: amisha shingala <amishashingala.mca@charusat.ac.in>

----- Forwarded message -----

From: Nilay Vaidya <nilayvaidya.mca@charusat.ac.in>

Date: Wed, Jun 15, 2022 at 3:21 PM

Subject: Student Development Workshop 2022

To: YASH ATHAVALE <21MCA001@charusat.edu.in>, <21MCA002@charusat.edu.in>, <21MCA003@charusat.edu.in>, <21MCA004@charusat.edu.in>, <21MCA005@charusat.edu.in>, <21MCA006@charusat.edu.in>, <21MCA007@charusat.edu.in>, <21MCA008@charusat.edu.in>, <21MCA009@charusat.edu.in>, <21MCA010@charusat.edu.in>, <21MCA011@charusat.edu.in>, <21MCA012@charusat.edu.in>, <21MCA013@charusat.edu.in>, <21MCA015@charusat.edu.in>, <21MCA017@charusat.edu.in>, <21MCA018@charusat.edu.in>, <21MCA019@charusat.edu.in>, <21MCA020@charusat.edu.in>, <21MCA022@charusat.edu.in>, <21MCA023@charusat.edu.in>, <21MCA024@charusat.edu.in>, <21MCA025@charusat.edu.in>, <21MCA027@charusat.edu.in>, <21MCA028@charusat.edu.in>, <21MCA029@charusat.edu.in>, MAITRI KAVI <21MCA030@charusat.edu.in>, <21MCA031@charusat.edu.in>, <21MCA032@charusat.edu.in>, <21MCA033@charusat.edu.in>, <21MCA034@charusat.edu.in>, <21MCA035@charusat.edu.in>, <21MCA036@charusat.edu.in>, <21MCA037@charusat.edu.in>, <21MCA038@charusat.edu.in>, <21MCA039@charusat.edu.in>, <21MCA040@charusat.edu.in>, <21MCA041@charusat.edu.in>, <21MCA043@charusat.edu.in>, <21MCA044@charusat.edu.in>, <21MCA046@charusat.edu.in>, <21MCA048@charusat.edu.in>, <21MCA049@charusat.edu.in>, <21MCA050@charusat.edu.in>, <21MCA051@charusat.edu.in>, <21MCA052@charusat.edu.in>, <21MCA055@charusat.edu.in>, <21MCA056@charusat.edu.in>, <21MCA057@charusat.edu.in>, <21MCA058@charusat.edu.in>, <21MCA059@charusat.edu.in>, <21MCA060@charusat.edu.in>, <21MCA062@charusat.edu.in>, <21MCA063@charusat.edu.in>, DIPALIBEN PARMAR <21MCA064@charusat.edu.in>, <21MCA065@charusat.edu.in>, <21MCA066@charusat.edu.in>, <21MCA067@charusat.edu.in>, <21MCA068@charusat.edu.in>, <21MCA070@charusat.edu.in>, <21MCA071@charusat.edu.in>, <21MCA075@charusat.edu.in>, <21MCA076@charusat.edu.in>, <21MCA077@charusat.edu.in>, <21MCA078@charusat.edu.in>, <21MCA079@charusat.edu.in>, <21MCA080@charusat.edu.in>, <21MCA081@charusat.edu.in>, <21MCA083@charusat.edu.in>, JAYKUMAR PATEL <21MCA084@charusat.edu.in>, <21MCA085@charusat.edu.in>, <21MCA086@charusat.edu.in>, <21MCA091@charusat.edu.in>, <21MCA092@charusat.edu.in>, <21MCA093@charusat.edu.in>, <21MCA094@charusat.edu.in>, <21MCA096@charusat.edu.in>, <21MCA097@charusat.edu.in>, <21MCA098@charusat.edu.in>, <21MCA100@charusat.edu.in>, <21MCA101@charusat.edu.in>, <21MCA102@charusat.edu.in>, <21MCA103@charusat.edu.in>, <21MCA105@charusat.edu.in>, <21MCA107@charusat.edu.in>, <21MCA108@charusat.edu.in>, <21MCA109@charusat.edu.in>, <21MCA112@charusat.edu.in>, <21MCA113@charusat.edu.in>, <21MCA114@charusat.edu.in>, <21MCA115@charusat.edu.in>, <21MCA116@charusat.edu.in>, <21MCA117@charusat.edu.in>, <21MCA118@charusat.edu.in>, <21MCA120@charusat.edu.in>, <21MCA122@charusat.edu.in>, <21MCA123@charusat.edu.in>, <21MCA124@charusat.edu.in>, <21MCA125@charusat.edu.in>, <21MCA126@charusat.edu.in>, <21MCA127@charusat.edu.in>, <21MCA128@charusat.edu.in>, <21MCA130@charusat.edu.in>, <21MCA131@charusat.edu.in>, <21MCA133@charusat.edu.in>, <21MCA134@charusat.edu.in>, <21MCA135@charusat.edu.in>, <21MCA136@charusat.edu.in>, <21MCA137@charusat.edu.in>, <21MCA138@charusat.edu.in>, <21MCA139@charusat.edu.in>, <21MCA140@charusat.edu.in>, <21MCA141@charusat.edu.in>, <21MCA142@charusat.edu.in>, <21MCA143@charusat.edu.in>, <21MCA144@charusat.edu.in>, <21MCA145@charusat.edu.in>, <21MCA146@charusat.edu.in>, <21MCA147@charusat.edu.in>, <21MCA148@charusat.edu.in>, <21MCA149@charusat.edu.in>, <21MCA150@charusat.edu.in>, <21MCA151@charusat.edu.in>, <21MCA152@charusat.edu.in>, <21MCA153@charusat.edu.in>, <21MCA154@charusat.edu.in>, <21MCA155@charusat.edu.in>, <21MCA156@charusat.edu.in>, <21MCA157@charusat.edu.in>, <21MCA158@charusat.edu.in>, <21MCA159@charusat.edu.in>, <21MCA160@charusat.edu.in>, <21MCA162@charusat.edu.in>, <21MCA164@charusat.edu.in>, <21MCA165@charusat.edu.in>, <21MCA166@charusat.edu.in>, <21MCA167@charusat.edu.in>, <21MCA168@charusat.edu.in>, <21MCA169@charusat.edu.in>, <21MCA176@charusat.edu.in>, <21MCA177@charusat.edu.in>, JAIMISH PATEL <21MCA178@charusat.edu.in>, <21MSIT001@charusat.edu.in>, <21MSIT002@charusat.edu.in>, <21MSIT004@charusat.edu.in>,

<https://mail.google.com/mail/u/0/?ik=cdfcafe3f&view=pt&search=all&permmsgid=msg-f%3A1748562057504221228&siml=msg-f%3A1748562057504221228> 1/2

Smt. Chandaben Mohanbhai Patel Institute of Computer Applications

11/4/22, 4:19 PM

Charotar University of Science & Technology Mail - Fwd: Student Development Workshop 2022

<21MSIT005@charusat.edu.in>, <21MSIT007@charusat.edu.in>, <21MSIT008@charusat.edu.in>,
<21MSIT009@charusat.edu.in>, <21MSIT010@charusat.edu.in>, <21MSIT011@charusat.edu.in>,
<21MSIT012@charusat.edu.in>, <21MSIT013@charusat.edu.in>, <21MSIT014@charusat.edu.in>,
<21MSIT015@charusat.edu.in>, <21MSIT016@charusat.edu.in>, <21MSIT018@charusat.edu.in>,
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<21MSIT053@charusat.edu.in>, <21MSIT054@charusat.edu.in>, <21MSIT055@charusat.edu.in>,
<21MSIT056@charusat.edu.in>

Cc: Atul Patel <atulpatel.mca@charusat.ac.in>, Jaimin Undavia <jaiminundavia.mca@charusat.ac.in>

Dear Students,

As a part of best practices of **Smt. Chandaben Mohanbhai Patel Institute of Computer Applications (CMPICA)**, CHARUSAT, we are offering a Student Development Programme (SDP) 2022, an **aptitude preparation workshop**. It will be starting from **20-June-2022 (Monday) between 2.00 pm to 4.30 pm** in an online mode for **two weeks**.

It is compulsory for all to attend the same without fail. The expert is same i.e. Alok Shah, Director @ Arham Education, Campus Placement Trainer.

Once you will join the offline classes for the third semester, a short training and revision shall be offered in an offline mode.

The detailed schedule will be communicated to you in a day or two.

The platform will be Microsoft Team for online mode.

Thanks and Regards.

--

Dr. Nilay M. Vaidya
Assistant Professor,
Smt.Chandaben Mohanbhai Patel Institute of Computer Applications(CMPICA),
Charotar University of Science and Technology(CHARUSAT),
Changa, Gujarat, India
Contact No:- +91 9428900767 / +91 7984008054
Website: www.charusat.ac.in

Smt. Chandaben Mohanbhai Patel Institute of Computer Applications

ANNEXURE-II BRIDGE COURSE MAIL

11/4/22, 4:21 PM Charotar University of Science & Technology Mail - Regarding Orientation and Bridge Course of Semester - 1N CHARUSAT
amisha shingala <amishashingala.mca@charusat.ac.in>

Regarding Orientation and Bridge Course of Semester - 1

Jaimin Undavia <jaiminundavia.mca@charusat.ac.in>

wed, Jul 13, 2022 at 12:58 PM

To: Dharmendra Patel <dharmaendrapatel.mca@charusat.ac.in>, "Dr. Abhilash Shukla" <abhilashshukla.mca@charusat.ac.in>, Dip Patel <dippatel.mca@charusat.ac.in>, Bhargav Vyas <bhargavvyas.mca@charusat.ac.in>, mittal desai <mittaladesai.mca@charusat.ac.in>, Honey Patel <honeypatel.mca@charusat.ac.in>, Konica Soni <konicasoni.mca@charusat.ac.in>, janki parmar <jankiparmar.mca@charusat.ac.in>, Nilay Vaidya <nilayvaidya.mca@charusat.ac.in>, KK Patel <kanupatel.mca@charusat.ac.in>, Kritika Pandey <kritikapanday.mca@charusat.ac.in>, Sandeep Gaikwad <sandeepgaikwad.mca@charusat.ac.in>, Krishna Kant <krishnakant.mca@charusat.ac.in>, Vivek Patel <vivekpatel.mca@charusat.ac.in>, Pranav Vyas <pranavvyas.mca@charusat.ac.in>, "Dr. Ankit Faldu" <ankitfaldu.mca@charusat.ac.in>, "Dr. Hardik Pandit" <hardikpandit.mca@charusat.ac.in>, Pooja Patel <poojapatel.mca@charusat.ac.in>, "Dr. Arpankumar Govindbhai Raval" <arpanraval.mca@charusat.ac.in>, tushar Mehta <tusharmehta.mca@charusat.ac.in>, amisha shingala <amishashingala.mca@charusat.ac.in>, sanskruti patel <sansktrutipatel.mca@charusat.ac.in>, "Dr. Rahul Chawda" <rahulchawda.mca@charusat.ac.in>, Sohil Pandya <sohilpandya.mca@charusat.ac.in>, Dhatri Raval <dhatriraval.mca@charusat.ac.in>, Hema Patel <hemapatel.mca@charusat.ac.in>, Arpit Trivedi <arpittrivedi.mca@charusat.ac.in>, rajvi Yadav <rajviyadav.mca@charusat.ac.in>, Mohitsinh Parmar <mohitsinhparmar.mca@charusat.ac.in>, Hardik Rajgor <hardikrajgor.mca@charusat.ac.in>, Shailesh Khant <shaileshkhant.mca@charusat.ac.in>, Sagar Kavaia <sagarkavaia.mca@charusat.ac.in>, "Hardik I. Patel" <hardikipatel.mca@charusat.ac.in>, Amit Hariyani <amithariyani.mca@charusat.ac.in>, Mubina Malik <mubinamalik.mca@charusat.ac.in>, Ravi Patel <ravipatel.mca@charusat.ac.in>, Sanket Patel <sanketpatel.mca@charusat.ac.in>, Kalpit Soni <kalpitsoni.mca@charusat.ac.in>, Anjali Mahavar <anjalmahavar.mca@charusat.ac.in>, Unnati Patel <unnatipatel.mca@charusat.ac.in>

Cc: Atul Patel <atulpatel.mca@charusat.ac.in>

Smt. Chandaben Mohanbhai Patel Institute of Computer Applications

Dear all

As you all are aware that bridge courses are going on for BCA, MCA, B.Sc.(IT) and M.Sc(IT) semester - 1 Students.

From Monday (18-7-2022), orientation for MCA and M.Sc.(IT) shall be conducted in offline mode.

For BCA and B.Sc.(IT) students, bridge courses will continue from 18-7-2022 to 23-7-2023 in Online mode only. (They are not supposed to come to college during this time).

We may plan the orientation session for BCA and B.Sc.(IT) students from 25-7-2022 in offline mode only.

If you receive any query related to this, simply divert this query to corresponding course coordinators.

Dr. Jaimin N Undavia,

Associate Professor & Training & Placement Representative,

Smt. Chandaben Mohanbhai Patel
Institute of Computer Applications,
Charotar University of Science &
Technology CHANGA.

M - 7283968701, 9426923708 Ext. :

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ANNEXURE –III DEPT MEETING

Smt, Chandaben Mohanbhai Patel Institute of Computer Applications

MINUTES OF F.IGITII MEETING (08 of 2021) OF DEPARTMENT

The faculty meeting of CM ICA Was held on 10th July, 2021 at 09:45 AM (Auditorium). The meeting was conducted by Dr. Atul Patel and following people attended the meeting:

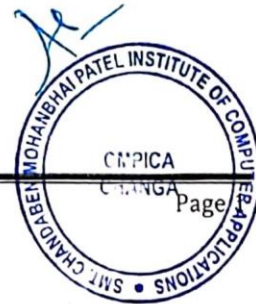
1. Dr. Dharmendra	Patel	2. Dr. Nirali Honest	3. Dr. Pranav Vyas
4. Mr. Nilay Ganatra	Patel	5. Ms. Rachana Patel	6. Mr. Arpit Trivedi
7. Ms. Mubina	Patel	8. Ms. Dhatri Raval	9. Ms. Hetal Patel
10. Ms. Nilam	Patel	11. Mr. Tushar Mehta	12. Mr. Hardik I. Patel
13. Mr. Krishna	Patel	14. Dr. Nilay Vaidya	15. Ms. Mittal Desai
16. Ms. Rajvi	Patel	17. Mr. Parthiv Patel	18. Dr. Shailesh Khant
19. Dr. Sohil Pandya	Patel	20. Mr. Mohit Parmar	21. Ms. Hema Patel

Item #1: Atul sir congratulated the faculty members for getting 5-star rating in GSIRF

Item #2: Regarding new admission and academic regulation:

- Atul Sir shared the statistics of admission, total 351 admission done till date in CMPICA
- Bridge course for PG students is arranged to engage students. Offline teaching for 2nd and 3rd year will have, arranged soon with government guidelines.
to participate in competitive examination. Also, circulate amongst the students that if they will get travelling allowances to participate in competitive examinations.
- According to the new guideline new syllabus is designed in such a way that each year exit will be possible. Each year exit with certification.
- Also, Credit Bank system will be followed in future so that student can have their subject credit in credit bank.
- For practical oriented subject, beyond syllabus — ie. Topics other than course should be delivered to students for their future scope.

Faculty of Computer Science and Applications - CHARUSAT



Faculty of Computer Science and Applications - CHARUSAT

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Smt. Chandaben Mohanbhai Patel Institute of Computer Applications

MINUTES OF THE EIGHTH MEETING (08 of 2021) of

The faculty meeting of CMPICA was held on 1st July, 2021 at 09:45 AM (Auditorium). The meeting was conducted by Dr. Atul Patel and following people attended the meeting:

- | | | |
|-------------------------|-----------------------|-------------------------|
| 1. Dr. Dharmendra Patel | 2. Dr. Nirali Honest | 3. Dr. Pranav Vyas |
| 4. Mr. Nilay Garara | 5. Ms. Rathana Patel | 6. Mr. Arpit Trivedi |
| 7. Ms. Mubina Malik | Ms. Dhatri Raval | 9. Ms. Hetal Patel |
| 10. Ms. Nilam Desai | 11. Mr. Tushar Mehta | 12. Mr. Hardik I. Patel |
| 13. Mr. Krishna Kant | 14. Dr. Nilay Vaidya | 15. Ms. Mittal Desai |
| 16. Ms. Rajvi Yadav | 17. Mr. Parthiv Patel | 18. Dr. Shailesh Khant |
| 19. Dr. Sohil Pandya | 20. Mr. Mohit Parmar | 21. Ms. Hema Patel |

Item #1: Atul sir congratulated faculty members for getting 5-star rating in GSIRF

Item #2: Regarding new admission and academic regulation:

Atul sir shared the status of admission, total 351 admission done till date in CMPICA Bridge course for PG students is arranged to engage students.

Offline teaching- for 2nd and 3rd year will have arranged soon with government guidelines. Encourage participating competitive examination.

Also, circulate amongst the students will get 'travelling allowances to participate in competitive examinations.

the new guideline; new syllabus is designed in such a way that each year exit will be possible. Each year exit with certification.

- For practical oriented subjects, beyond syllabus — ie. Topics other than course should be delivered to students for their future scope.



Smt. Chandaben Mohanbhai Patel Institute of Computer Applications

ANNEXURE-IV BOS MEETING

Annexure-I

Twentieth joint meeting of the Board of Studies and Faculty Board for Faculty of Computer Science and Applications at CHARUSAT.

Date: 4th September, 2021

Time: 02:00 p. m.

Venue: Online mode (Google meet) and Offline mode (CMPICA Board Room), CHARUSAT Campus, Changa

The Twentieth joint meeting of Board of Studies and Faculty board for Faculty of Computer science and Applications, CHARUSAT was held on 4th September, 2021 at 02:00 p.m. using Google Meet online mode and Offline mode (CMPICA Board Room), Smt. Chandaben Mohanbhai Patel Institute of Computer Applications, CHARUSAT, Changa.

Following members were present at the meeting:

1. Dr. Dharmendra Patel, Professor, CMPICA, Changa. (Chairman BOS)
2. Dr. Atul Patel, Principal CMPICA, Changa (Chairman FB)
3. Dr. Mukesh Patel, Eminent Professional, Anagram Knowledge Academy Ltd, Ahmedabad (Member FB)
4. Dr. Bankim Patel, UKA Tarsadia, Bardoli. (Member FB)
5. Dr. Darshan Chokshi, Professor, G.H. Patel, SP University, V.V. Nagar, (Member BOS)
6. Dr. Narayan Joshi, Professor and Head, DDU. (Member BOS)
7. Mr. Kishore Tarachandani, CEO Dots and Coms, Baroda. (Member FB)
8. Dr. Kamlesh Vaishnav, Associate Professor, M.S.U, Vadodara. (Member BOS)
9. Dr. Chirag Patel, Technical Consultant, Innovate Tax Private, Vadodara (Member, BOS) (Alumni)
10. Dr. Nirali Honest, Associate Professor, CMPICA, Changa. (Member BOS)
11. Dr. Sanskruti Patel, Associate Professor, CMPICA, Changa. (Member FB)
12. Dr. Jaimin Undavia, Associate Professor, CMPICA, Changa. (Member FB)
13. Dr. Pranav Vyas, Assistant Professor, CMPICA, Changa. (Invitee)
14. Dr. Kanu Patel, Assistant Professor, CMPCIA, Changa. (Invitee)
15. Dr. Shailesh Khant, Assistant Professor, CMPCIA, Changa. (Invitee)
16. Dr. Sohail Pandya, Assistant Professor, CMPCIA, Changa. (Invitee)
17. Dr. Mittal Desai, Assistant Professor, CMPCIA, Changa. (Invitee)
18. Dr. Nilay Vaidya, Assistant Professor, CMPCIA, Changa. (Invitee)
19. Dr. Nilay Ganatra, Assistant Professor, CMPCIA, Changa. (Invitee)

Following members could not attend the meeting due to their other preoccupations:

1. Mr. Ashok Patel, Member BOS, Vice President, Kelavani Mandal, Advisor CHARUSAT. (Member BOS)

20th

2. Mr. Nishant Joshi, Technical Architect ,Cybage Software Pvt.Ltd., Gandhiagar (Alumni)(Member BOS)
3. Mr. Purnesh Soni, Project Leader, HighQ Solutions, Ahmedabad. (Alumni) (Member BOS)
4. Ms. Ruchi Kansara, Assistant General Manager,Future Group,Ahmedabad (Alumni) (Member BOS)
5. Mr. Amresh Mehta, Business Development Head, Shiva Engineering Services, Vadodara (Member FB)
6. Mr. Ravi Pathak, MD, Tatvik, Ahmedabad (Member FB)
7. Mr. Umang Bhatt, Senior S/W Engineer, All Scripts India LLC, Vadodara (Member FB)

Initiation:-

The commencement of the meeting was made by Chairman of BOS by welcoming all the members, introducing new invitees and expressing gratitude for sparing their valuable time, afterwards a briefing on the agenda of the meeting was discussed.

Agenda, Proceedings & Resolutions: -

Item 20.1: To discuss and approve Minutes of 19th joint meeting of the BOS and FB.

Proceedings: Chairman of BOS gave brief description about 19th joint meeting of BOS and FB to all members and invitees and asked them for suggestions or modifications if any.

Resolutions 20.1

Since there were no suggestions or modifications, all members of BOS and FB approved the minutes of 19th joint BOS and FB.

(Refer Annexure-I 19th joint BOS and FB Meeting)

Item 20.2: To discuss and approve teaching and examination scheme of BCA,B.Sc.IT,MCA and M.Sc.IT programmes as per NEP-2020.

Proceedings: Chairman of BOS presented and explained phase wise implementation of four years unique programme as per National Education Policy-2020. Further he explained that, Exit option is available after every year (i.e 1st, 2nd and 3rd) and in that case the Award of Degree will be as below,

- BCA
 - Certificate of Computing (Candidate wish to Exit after the First Year) ○ Diploma in Computer Applications (Candidate wish to Exit after the Second Year) ○ Bachelor of Computer Applications (Candidate wish to Exit after the Third Year) ○ Bachelor of Computer Applications(Honours) (Candidate finishes all Four Years)
- B.Sc.(IT) ○ Certificate of Computing (Candidate wish to Exit after the First Year) ○ Diploma in Information Technology (Candidate wish to Exit after the Second Year) ○ Bachelor of Computer Science in Information Technology (Candidate wish to Exit after the Third Year)

20th

- Bachelor of Computer Science in Information Technology (Honours) (Candidate finishes all Four Years)
- The syllabus structure of MCA and M.Sc.(IT) programme was explained by Chairperson.
- The general suggestions given by members and invitees are as follows, ○ Machine Intelligence title should be considered instead of Artificial Intelligence course in BCA programme.
 - Introduction to Oracle Apex, should be given. ○ Impose self study learning element by giving assignments that is distributed over three to four semesters.
 - There may be differentiation of courses at least from 2nd sem onwards between BCA and B.Sc.(IT) the programme, which may be 1 course in the initial and may increased subsequently. The differentiation should primarily focus on IT and Computer Applications that is mainly towards business processing. Flow of courses may be rethought. Alternative to think of for developing soft skills rather than as a part of teaching.
 - Usually, core competency related courses may have a weightage of around 50%, domain applied course 30% and non-domain applied courses 20%. ○ For Elective courses you should identify (give attention) a few sub-domains and accordingly design courses starting from basic (or may be from intermediate) level to advanced (or may be up to intermediate) level. ○ The syllabus must not be tool oriented. Tool to be used to bring more conceptual clarity.

Resolutions 20.2

- The title Artificial Intelligence was changed with the suggested title in BCA programme.
- We will arrange expert session for the suggested topic.
- It is already practiced with case study based pedagogy.
- It is resolved that teaching scheme of BCA and B.Sc.IT programmes is restructured based on give inputs.
- It is resolved that, we will keep the recommended weightages for core competency, domain applied courses, non-domain applied courses.
- We have identified domains and courses with and without prerequisites.
- We have removed the tool wherever possible.

(Refer Annexure-II BCA Teaching-Examination Scheme, Annexure-III B.Sc.IT Teaching Examination Scheme, Annexure-IV MCA Teaching-Examination Scheme, Annexure-V M.Sc.IT Teaching-Examination Scheme)

Item 20.3 : To inform about course attainment of 2019-20 and 2020-21.

Proceedings: Chairman of BOS presented the course attainment for all the courses along with summary for the A.Y. 2019-2020 (Even semester) and 2020-2021 (Odd semester). The suggestion to review individual course where the value is below the decided threshold should be carried out instead of reviewing average summary of each PO for each course.

Resolutions 20.3

The Board of Studies and Faculty board noted the suggestion and expressed satisfaction towards the process and appreciated efforts for the analysis and action taken report.

20th

(Refer Annexure-VI Course Attainment- Academic Year-2019-20-even semester, AnnexureVII- Course Attainment- Academic Year-2020-21-odd semester)

Item 20.4 : To inform about result analysis of summer examination 2020-21.

Proceedings: Chairman of BOS presented the result analysis of the summer examination for the A.Y. 2020-2021.

Resolution 20.4 : The Board of Studies and Faculty board expressed satisfaction towards results.

(Refer Annexure-VIII Result Analysis)

Item 20.5 : To inform about the placement details of current academic year.

Proceedings: Chairman of BOS presented the placement details for the Academic Year 2021-22. The Principal Sir highlighted the increase in package and average placement of students.

Resolution 20.5 : The members appreciated the increased package and average placement of students.

(Refer Annexure-IX Placement Details)

Item 20.6: To discuss and approve the panel of Examiners

Proceedings: The chairman of the BOS circulated the panel of examiners to all members present in the meeting and asked for the approval or any suggestions, if any.

Resolution 20.6

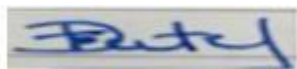
The members approved the panel of examiners.

(Refer Annexure-X Panel of Examiners)

Item 20.7: Any other item with permission of chair, if any

Other Item:-

Since, there was no other item to be discussed, the meeting ended with vote of thanks to the Chair.



Dr. Dharmendra Patel

(Chairman,BOS,FCA,CHARUSAT)



Dr. Atul Patel

(Chairman,FB,FCA,CHARUSAT)

Date : 18th September, 2021

ANNEXURE- V Teaching learning scheme Enclosure Teaching Scheme for year 2021-22 and 2022-23

CHAROTAR UNIVERSITY OF SCIENCE AND TECHNOLOGY (CHARUSAT)

FACULTY OF COMPUTER SCIENCE & APPLICATIONS

Teaching Scheme

FOR

BACHELOR OF COMPUTER APPLICATIONS

**TEACHING SCHEME
FOR
BCA PROGRAMME
(1ST, 2ND & 3RD YEAR)

EFFECTIVE FROM
ACADEMIC YEAR 2021-2022**

Teaching and Examination Scheme (BCA Programme)

Effective from Year 2021-2022

Semester-I

Course Code	Course Title	Teaching Scheme				Examination Scheme						
		Contact Hours			Credit	Theory			Practical			Total
		Theory	Practical	Total		Internal		External	Internal		External	
						Case Study	Tests		Term work	Tests		
CA109-110	Elective-I	3	-	3	3	10	20	70	-	-	-	100
CA111	Fundamental Concepts Of Programming Language	4	3	7	7	10	20	70	15	15	70	200
CA112	Introduction to Computers	4	3	7	7	10	20	70	15	15	70	200
CA113	Programming the Internet-I	-	3	3	3	-	-	-	15	15	70	100
CA114	Foundation of Mathematics	3	-	3	3	10	20	70	-	-	-	100
HS101.02 C	Communicative English	-	2	2	2	-		-	30		70	100
FS102C	Foundation Course on Chemistry and Biology	-	2	2	2	-		-	30		70	100
		14	13	27	27	400			500			900

Elective-I

1. CA109 –Introduction to Information Technology
2. CA110 – Foundation of Computer Organization

Teaching and Examination Scheme (BCA Programme)

Effective from Year 2021-2022

Semester-II

Course Code	Course Title	Teaching Scheme				Examination Scheme						
		Contact Hours			Credit	Theory			Practical			Total
		Theory	Practical	Total		Internal		External	Internal		External	
						Case Study	Tests		Term work	Tests		
CA115-116	Elective-II	3	-	3	3	10	20	70	-	-	-	100
CA117	Operating System Concepts	4	3	7	7	10	20	70	15	15	70	200
CA118	Advanced Programming	4	3	7	7	10	20	70	15	15	70	200
CA119	Database Fundamentals	4	3	7	7	10	20	70	15	15	70	200
CA120	Fundamentals of Commerce & Business Process	3	-	3	3	10	20	70	-	-	-	100
HS201.02 C HS202.02 C HS205.02 C HS209.02 C HS210.02 C	Painting Photography Media and Graphic Design Dramatics Contemporary Dance	-	2	2	2	-		-	30		70	100
FS101C	Foundation Course On Mathematics And Physics	-	2	2	2	-		-	30		70	100
		18	13	31	31	500			500			1000

Elective-II

1. CA115–Management Information System
2. CA116–Numerical & Statistical Method

Teaching and Examination Scheme (BCA Programme)

Effective from Year 2021-2022

Semester-III

Course Code	Course Title	Teaching Scheme				Examination Scheme						
		Contact Hours			Credit	Theory			Practical			Total
		Theory	Pract	Total		Internal		External	Internal		Exter nal	
						Case Study	Tests		Term work	Tests		
CA209-210	Elective - III	3	-	3	3	10	20	70	-	-	-	100
CA211-212	Elective – IV	-	3	3	3	-	-	-	15	15	70	100
CA213	Programming the Internet-II	4	3	7	7	10	20	70	15	15	70	200
CA214	Object Oriented Programming Using C++	4	3	7	7	10	20	70	15	15	70	200
CA215	System Analysis and Design	3	-	3	3	10	20	70	-		-	100
HS121.02 C	Creativity, Problem Solving and Innovation	2	-	2	2	30		70	-		-	100
CL144.01 C	Environmental Sciences	-	2	2	2	-		-	30		70	100
	University Elective – I **	-	2	2	2	-	-	-	30		70	100
		16	13	29	29	500			500			1000

** Student will take any university elective offered by different institutions of university. CMPICA has decided to offer

CA224 Introduction to Web Designing course for others.

Elective-III

1. CA209–Fundamentals of Electronic Commerce
2. CA210–Introduction to Economics

Elective-IV

1. CA211–User Interface Design
2. CA212 - Visual Basic Applications

University Elective - I

No	Course Code	Course Name	Department/Faculty
1	CE281.01	Art of Programming	Engineering
2	CL281.01	Environmental Sustainability & Climate Change	Engineering
3	IT281.01	ICT Resources & Multimedia	Engineering
4	ME281.01	Engineering Drawing	Engineering
5	PH233.01	Fundamentals of Packaging	Pharmacy
6	PD260.01	Basic Laboratory Techniques	Applied Science
7	NR251.01	First Aid & Life Support	Nursing
8	PT191.01	Health Promotion & Fitness	Physiotherapy
9	BM231	Banking & Insurance	Management
10	EC281.01	Introduction to MATLAB Programming	Engineering
11	PD261	Astrophysics, Space and Cosmos-1	Applied Science
12	CL283	SDG Handprint Laboratory	Engineering
13	EE284	Python Programming	Engineering

Teaching and Examination Scheme (BCA Programme)

Effective from Year 2021-2022

Semester-IV

Course Code	Course Title	Teaching Scheme				Examination Scheme						
		Contact Hours			Credit	Theory			Practical			Total
		Theory	Pract	Total		Internal		External	Internal		External	
						Case Study	Tests		Term work	Tests		
CA216 – 220	Elective - V	4	3	7	7	10	20	70	15	15	70	200
CA221	Data Structures & Algorithms	4	3	7	7	10	20	70	15	15	70	200
CA222	Advanced Database System	-	3	3	3	-	-	-	15	15	70	100
CA223	Fundamentals of Computer Networks	3	-	3	3	10	20	70	-		-	100
HS111.02 C	Human Values and Professional Ethics	-	2	2	2	-		-	30		70	100
	University Elective – II **	-	2	2	2	-	-	-	30		70	100
		11	13	24	24	300			500			800

** Student will take any university elective offered by different institutions of university. CMPICA has decided to offer

CA225 Programming the Internet course for others.

Elective-V

1. CA216 -Computer Graphics
2. CA217- Multi Paradigm Programming Language
3. CA218- System Programming
4. CA219- Scripting Language
5. CA220- Basics of Web Designing

University Elective – II

No	Course Code	Course Name	Department/Faculty
1	EC282.01	Prototyping Electronics with Arduino	Engineering
2	CE282.01	Web Designing	Engineering
3	CL282.01	Basics of Environmental Impact Assessment	Engineering
4	IT282.01	Internet Technology & Web Design	Engineering
5	ME282.01	Material Science	Engineering
6	PH238.01	Cosmetics in Daily Life	Pharmacy
7	NR261.01	Life Style Diseases & Management	Nursing
8	PT192.01	Occupational Health & Ergonomics	Physiotherapy
9	BM241	Health Care Management	Management
10	PD262	Astrophysics, Space and Cosmos-2	Applied Science
11	EE287	MATLAB Programming	Engineering
12	EE288	Maintenance of Household Apparatus	Engineering

Teaching and Examination Scheme (BCA Programme)
Effective from Year 2021-2022
Semester-V

Course Code	Course Title	Teaching Scheme				Examination Scheme						
		Contact Hours			Credit	Theory			Practical			Total
		Theor y	Pract	Tot al		Internal		Exter nal	Internal		Exter nal	
						Case Study	Tests		Term work	Tests		
CA308–313	Elective-VI	4	3	7	7	10	20	70	15	15	70	200
CA314	Object Oriented Programming Through JAVA	4	3	7	7	10	20	70	15	15	70	200
CA315	Application development using .NET Framework	4	3	7	7	10	20	70	15	15	70	200
CA316	Software Engineering	-	3	3	3	-	-	-	15	15	70	100
HS131.02 C	Communication and Soft Skills	-	2	2	2				30		70	100
		12	14	26	26	300			500			800

Elective-VI

1. CA308 –Introduction to Open Source Technology
2. CA309 –Advanced Computer Networks
3. CA310 –Operation Research
4. CA311–Embedded Programming
5. CA312-Multi Media
6. CA313-Ruby on Rail Architecture

Teaching and Examination Scheme (BCA Programme)

Effective from Year 2021-2022

Semester-VI

Course Code	Course Title	Teaching Scheme				Examination Scheme						
		Contact Hours			Credit	Theory			Practical			Total
		Theo ry	Pract	Tot al		Internal		Exter nal	Internal		Exter nal	
						Case Study	Tests		Term work	Tests		
CA317-319	Elective-VII	4	-	4	4	10	20	70	-	-	-	100
CA320 – 322	Elective-VIII	-	3	3	3	-	-	-	15	15	70	100
CA323	Minor Project	-	15	15	15	-	-	-	100		300	400
HS132.02 C	Contributory Personality Development	-	2	2	2	- -		-	30		70	100
		04	20	24	24	100			600			700

Elective- VII

1. CA317 –Artificial Intelligence
2. CA318–Cryptography and Network Security
3. CA319–Data Compression Techniques

Elective- VIII

1. CA320–Software Project Management
2. CA321–Basics of Mobile Applications
3. CA322–Computer Graphics-II

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www.charusat.ac.in

Year – 2021-2022

TEACHING SCHEME

FOR

BSc.(IT) PROGRAMME

(1ST, 2ND & 3RD YEAR)

EFFECTIVE FROM

ACADEMIC YEAR 2021-22

Teaching and Examination Scheme of B.Sc.(IT) Programme

Teaching and Examination Scheme (B.Sc.(IT) Programme)
Effective from Year 2021-2022

Semester-I

Course Code	Course Title	Teaching Scheme				Examination Scheme						
		Contact Hours			Credit	Theory			Practical			Total
		Theory	Pract	Total		Internal		External	Internal		External	
						Case Study	Tests		Term work	Tests		
CA401	Introduction to Computers	-	3	3	3	-	-	-	10	20	70	100
CA402	Introduction to Programming in C	4	3	7	7	10	20	70	15	15	70	200
CA403	Information Technology and Digital Electronics	4	-	4	4	10	20	70	-	-	-	100
CA404	Web Fundamentals	3	-	3	3	10	20	70	-	-	-	100
CA405	Foundation Of Mathematics	3	-	3	3	10	20	70	-	-	-	100
HS101.02 C	Communicative English	-	2	2	2	-		-	30		70	100
FS102C	Foundation Course on Chemistry and Biology	-	2	2	2	-		-	30		70	100
		14	10	24	24	400			400			800

Teaching and Examination Scheme (B.Sc.(IT) Programme)
Effective from Year 2021-2022

Semester-II

Course Code	Course Title	Teaching Scheme				Examination Scheme						
		Contact Hours			Credit	Theory			Practical			Total
		Theory	Pract	Total		Internal		External	Internal		External	
						Case Study	Tests		Term work	Tests		
CA406	Operating System Concepts	4	3	7	7	10	20	70	15	15	70	200
CA407	Advanced Programming in C	-	3	3	3	-	-	-	15	15	70	100
CA408	Database Fundamentals	4	3	7	7	10	20	70	15	15	70	200
CA409	Computer Oriented Numerical Methods	3	-	3	3	10	20	70	-	-	-	100
CA410	Fundamentals of Commerce and Business Processes	3	-	3	3	10	20	70	-		-	100
HS201.02 C HS202.02 C HS205.02 C HS209.02 C HS210.02 C	Painting Photography Media and Graphic Design Dramatics Contemporary Dance	-	2	2	2	-		-	30		70	100
FS101C	Foundation Course On Mathematics And Physics	-	2	2	2	-		-	30		70	100
		14	13	27	27	400			500			900

Teaching and Examination Scheme (B.Sc.(IT) Programme)

Effective from Year 2021-2022

Semester-III

Course Code	Course Title	Teaching Scheme				Examination Scheme						
		Contact Hours			Credit	Theory			Practical			Total
		Theor y	Pract	Tot al		Internal		External	Internal		External	
						Case Study	Tests		Term work	Tests		
CA501	Programming the Internet	4	3	7	7	10	20	70	15	15	70	200
CA502	Fundamentals of Computer Networks	3	-	3	3	10	20	70	-	-	-	100
CA503	Object Oriented Programming Using C++	4	3	7	7	10	20	70	15	15	70	200
CA504	E-Commerce	3	-	3	3	10	20	70	-		-	100
CA505	System Analysis and Design	3	-	3	3	10	20	70	-		-	100
HS121.02 C	Creativity, Problem Solving and Innovation	-	2	2	2	-		-	30		70	100
	University Elective-I **	-	2	2	2	-		-	30		70	100
		17	10	27	27	500			400			900

** Student will take any university elective offered by different institutions of university. CMPICA has decided to offer **CA224 Introduction to Web Designing** course for others.

University Electives

No	Course Code	Course Name	Department/Faculty
1	CE281.01	Art of Programming	Engineering
2	CL281.01	Environmental Sustainability & Climate Change	Engineering
3	IT281.01	ICT Resources & Multimedia	Engineering
4	ME281.01	Engineering Drawing	Engineering
5	PH233.01	Fundamentals of Packaging	Pharmacy
6	PD260.01	Basic Laboratory Techniques	Applied Science
7	NR251.01	First Aid & Life Support	Nursing
8	PT191.01	Health Promotion & Fitness	Physiotherapy
9	BM231	Banking & Insurance	Management
10	EC281.01	Introduction to MATLAB Programming	Engineering
11	PD261	Astrophysics, Space and Cosmos-1	Applied Science
12	CL283	SDG Handprint Laboratory	Engineering
13	EE284	Python Programming	Engineering

Teaching and Examination Scheme (B.Sc.(IT) Programme)
Effective from Year 2021-2022
Semester-IV

Course Code	Course Title	Teaching Scheme				Examination Scheme						
		Contact Hours			Credit	Theory			Practical			Total
		Theory	Pract	Total		Internal		External	Internal		External	
						Case Study	Tests		Term work	Tests		
CA506	Data Structures & Algorithms	4	3	7	7	10	20	70	15	15	70	200
CA507	Advanced Database System	-	3	3	3	-	-	-	15	15	70	100
CA508-512	Elective – I	4	3	7	7	10	20	70	15	15	70	200
CA513	Management Information System	3	-	3	3	10	20	70	-		-	100
HS111.02 C	Human Values and Professional Ethics	-	2	2	2	-		-	30		70	100
CL144.02 C	Environmental Sciences	-	2	2	2	-		-	30		70	100
	University Elective-I I**	-	2	2	2	-		-	30		70	100
		11	15	26	26	300			600			900

** Student will take any university elective offered by different institutions of university. CMPICA has decided to offer **CA225**

Programming the Internet course for others.

Elective-I

1. CA508 Graphics Designing
2. CA509 Open Source Technology
3. CA510 Multi Paradigm Scripting
4. CA511 Foundation of Data Science
5. CA512 Fundamentals of Embedded Programming

University Elective – II

No	Course Code	Course Name	Department/Faculty
1	EC282.01	Prototyping Electronics with Arduino	Engineering
2	CE282.01	Web Designing	Engineering
3	CL282.01	Basics of Environmental Impact Assessment	Engineering
4	IT282.01	Internet Technology & Web Design	Engineering
5	ME282.01	Material Science	Engineering
6	PH238.01	Cosmetics in Daily Life	Pharmacy
7	NR261.01	Life Style Diseases & Management	Nursing
8	PT192.01	Occupational Health & Ergonomics	Physiotherapy
9	BM241	Health Care Management	Management
10	PD262	Astrophysics, Space and Cosmos-2	Applied Science
11	EE287	MATLAB Programming	Engineering
12	EE288	Maintenance of Household Apparatus	Engineering

13 Teaching and Examination Scheme (B.Sc.(IT) Programme)

Effective from Year 2021-2022

Semester-V

Course Code	Course Title	Teaching Scheme				Examination Scheme						
		Contact Hours			Credit	Theory			Practical			Total
		Theory	Pract	Total		Internal		External	Internal		External	
						Case Study	Tests		Term work	Tests		
CA601	Object Oriented Programming Through JAVA	4	3	7	7	10	20	70	15	15	70	200
CA602	Application development using .NET Framework	4	3	7	7	10	20	70	15	15	70	200
CA603-607	Elective - II	4	3	7	7	10	20	70	15	15	70	200
CA608	Object Oriented System Analysis and Design	-	3	3	3	-	-	-	30		70	100
HS131.02 C	Communication and Soft Skills	-	2	2	2	-	-	-	30		70	100
		12	14	26	26	300			500			800

Elective-II

1. CA603 Fundamentals of Multi-Media
2. CA604 Open Source Framework - I
3. CA605 Scripting Framework - I
4. CA606 Advanced Data Science
5. CA607 Embedded Programming Using Arduino

Teaching and Examination Scheme (B.Sc.(IT) Programme)

Effective from Year 2021-2022

Semester-VI

Course Code	Course Title	Teaching Scheme				Examination Scheme						
		Contact Hours			Credit	Theory			Practical			Total
		Theory	Pract	Total		Internal		External	Internal		External	
						Case Study	Tests		Term work	Tests		
CA609	Minor Project	-	12	12	12	-	-	-	50	50	200	300
CA610	Mobile Application Development	4	3	7	7	10	20	70	15	15	70	200
CA611-615	Elective - III	3	3	6	6	10	20	70	15	15	70	200
HS132.02 C	Contributory Personality Development	-	2	2	2	-		-	30		70	100
		07	20	27	27	200			600			800

Elective-III

1. CA611 Advanced Multi-Media
2. CA612 Open Source Framework - II
3. CA613 Scripting Framework - II
4. CA614 Data Mining & Analytics
5. CA615 Embedded Programming Using Raspberry Pi



CHAROTAR UNIVERSITY OF SCIENCE & TECHNOLOGY

Faculty of Computer Science & Applications

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Year – 2021-2022

**TEACHING SCHEME
FOR
MCA PROGRAMME
(1ST & 2ND YEAR)

EFFECTIVE FROM
ACADEMIC YEAR 2021-22**

Teaching and Examination Scheme (MCA Programme)
Effective from Year 2021-22
Semester-I

Course Code	Course Title	Teaching Scheme				Examination Scheme						
		Contact Hours			Credit	Theory			Practical			Total
		Theory	Pract	Total		Internal		External	Internal		External	
						Case Study	Tests		Term work	Tests		
CA843	Enterprise Computing using Java EE	3	3	6	6	10	20	70	15	15	70	200
CA844	Visual Programming	3	3	6	6	10	20	70	15	15	70	200
CA845	Advanced Database Technologies	3	3	6	6	10	20	70	15	15	70	200
CA846	Software Engineering Paradigms	3	-	3	3	10	20	70	-	-	-	100
CA847-CA850	Elective-I	3	-	3	3	10	20	70	-	-	-	100
HS141.02 C	Foreign Languages	-	2	2	2	-		-	30		70	100
HS105.02C	Academic Speaking and Presentation Skills											
		15	11	26	26	500			400			900

**** Student will take any university elective offered by different institutions of university. CMPICA has decided to offer CA730 Internet and Web Designing course for others.**

Elective-I

1. CA847 Cloud Computing
2. CA848 Cyber Security and Computer Forensics
3. CA849 Internetworking with TCP/IP Protocol Suite
4. CA850 Advanced Operating Systems

Teaching and Examination Scheme (MCA Programme)
Effective from Year 2021-22
Semester-II

Course Code	Course Title	Teaching Scheme				Examination Scheme						
		Contact Hours			Credit	Theory			Practical			Total
		Theory	Pract	Total		Internal		External	Internal		External	
						Case Study	Tests		Term work	Tests		
CA851	Web Application Development using Open Source Technology	3	3	6	6	10	20	70	15	15	70	200
CA852	Software Quality Assurance	3	3	6	6	10	20	70	15	15	70	200
CA853	Responsive Web Designing Using Framework	-	2	2	2	-	-	-	15	15	70	100
CA854-CA855	Elective II	3	3	6	6	10	20	70	15	15	70	200
CA856-CA858	Elective-III	3	3	6	6	10	20	70	15	15	70	200
HS106.02C	Academic Writing	-	2	2	2	-	-	-	30		70	100
	University Elective-I **	-	2	2	2	-	-	-	30		70	100
		12	18	30	30	400			700			1100

** Student will take any university elective offered by different institutions of university. CMPICA has decided to offer **CA842**

Mobile Application Development course for others.

Elective-II

1. CA854 Mobile Application Technology – Android Platform
2. CA855 Mobile Application Development-iOS Platform

Elective-III

1. CA856 HTTP Web Service for Enterprise Application
2. CA857 Framework and Applications
3. CA858 Multi Paradigm Scripting using Python

University Elective-I

No	Course Code	Course Name	Department/Faculty
1	EE782.01	Energy Audit and Management	Engineering
2	CE771.01	Project Management	Engineering
3	PT796.01	Fitness & Nutrition	Physiotherapy
4	MB651	Software based Statistical Analysis	Management
5	NR755	First Aid & Life Support	Nursing
6	OC733.01	Introduction to Polymer Science	Applied Science
7	MA771.01	Reliability and Risk Analysis	Mathematics
8	ME781.01	Occupational Health & Safety	Engineering
9	MA772.01	Design of Experiments	Mathematics
10	RD701.01	Introduction to Analytical Techniques	Applied Science
11	RD702.01	Introduction to Nanoscience And Technology	Applied Science
12	PH891	Community Pharmacy Ownership	Pharmacy
13	PH892	Intellectual Property Rights	Pharmacy
14	PSE55	Astrophysics, Space and Cosmos	Applied Science

Teaching and Examination Scheme (MCA Programme)

Effective from Year 2021-22

Semester-III

Course Code	Course Title	Teaching Scheme				Examination Scheme						
		Contact Hours			Credit	Theory			Practical			Total
		Theory	Pract	Total		Internal		External	Internal		External	
						Case Study	Tests		Term work	Tests		
CA926	Open Source Frameworks	3	3	6	6	10	20	70	15	15	70	200
CA927	Data Analytics	3	3	6	6	10	20	70	15	15	70	200
CA928-CA931	Elective-IV	3	-	3	3	10	20	70	-	-	-	100
CA932	Mini Project	-	15	15	15	-	-	-	100		200	300
		9	21	30	30	300			500			800

Elective-IV

1. CA928 Artificial Intelligence
2. CA929 Digital Image Processing
3. CA930 Compiler Construction
4. CA931 Analysis and Design of Algorithms

Teaching and Examination Scheme (MCA Programme) Effective from Year 2021-22

Semester-IV

Course Code	Course Title	Teaching Scheme				Internal	End Semester Examination		Total
		Contact Hours			Credit	Continuous Evaluation	Report	Presentation & Viva	
		Inst.	Industry	Total					
CA933	Project Work	2	28	30	30	200	200	400	800



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www.charusat.ac.in

Year – 2021-2022

**TEACHING SCHEME
FOR
M.Sc. (IT) PROGRAMME
(1ST & 2ND YEAR)**

**EFFECTIVE FROM
ACADEMIC YEAR 2021-22**

**Teaching and Examination Scheme (M.Sc.(IT) Programme)
Effective from Year 2021-22**

SEMESTER-I

Course Code	Course Title	Teaching Scheme				Examination Scheme						
		Contact Hours			Credit	Theory			Practical			Total
		Theory	Pract	Total		Internal		External	Internal		External	
						Case Study	Tests		Term work	Tests		
MS114	Software Engineering Paradigms	3	-	3	3	10	20	70	-	-	-	100
MS115	Framework And Application using .NET	3	3	6	6	10	20	70	15	15	70	200
MS116	Multi Paradigm Scripting using Python - I	3	3	6	6	10	20	70	15	15	70	200
MS117	Database Technologies	3	3	6	6	10	20	70	15	15	70	200
MS118-MS119	Elective-I	3	-	3	3	10	20	70	-	-	-	100
HS141.02 C HS105.02 C	Foreign Languages Academic Speaking and Presentation Skills	-	2	2	2	-	-	-	30		70	100
		15	11	26	26	500			400			900

** Student will take any university elective offered by different institutions of university. CMPICA has decided to offer **CA730 Internet and Web Designing** course for others.

Elective-I

1. MS118 Fundamentals of Computer Networks
2. MS119 Operating System Concepts

Teaching and Examination Scheme (M.Sc.(IT) Programme)
Effective from Year 2021-22

SEMESTER-II

Course Code	Course Title	Teaching Scheme				Examination Scheme						
		Contact Hours			Credit	Theory			Practical			Total
		Theory	Pract	Total		Internal		External	Internal		External	
						Case Study	Tests		Term work	Tests		
MS217	Web Development using Open Source Technology	3	3	6	6	10	20	70	15	15	70	200
MS218	Software Testing	3	3	6	6	10	20	70	15	15	70	200
MS219	Object Oriented Programming using Java	3	3	6	6	10	20	70	15	15	70	200
MS220-MS222	Elective II	3	3	6	6	10	20	70	15	15	70	200
HS106.02 C	Academic Writing	-	2	2	2	-	-	-	30		70	100
	University Elective-I**	-	2	2	2	-	-	-	30		70	100
		12	16	28	28	400			600			1000

** Student will take any university elective offered by different institutions of university. CMPICA has decided to offer **CA842 Mobile Application Development** course for others.

Elective-II

1. MS220 HTTP Web Service for Enterprise Application
2. MS221 Multi Paradigm Scripting using Python - II
3. MS222 Game Development - I

University Elective-I

No	Course Code	Course Name	Department/Faculty
1	EE782.01	Energy Audit and Management	Engineering
2	CE771.01	Project Management	Engineering
3	PT796.01	Fitness & Nutrition	Physiotherapy
4	MB651	Software based Statistical Analysis	Management
5	NR755	First Aid & Life Support	Nursing
6	OC733.01	Introduction to Polymer Science	Applied Science
7	MA771.01	Reliability and Risk Analysis	Mathematics
8	ME781.01	Occupational Health & Safety	Engineering
9	MA772.01	Design of Experiments	Mathematics
10	RD701.01	Introduction to Analytical Techniques	Applied Science
11	RD702.01	Introduction to Nanoscience And Technology	Applied Science
12	PH891	Community Pharmacy Ownership	Pharmacy
13	PH892	Intellectual Property Rights	Pharmacy
14	PSE55	Astrophysics, Space and Cosmos	Applied Science

Teaching and Examination Scheme (M.Sc.(IT) Programme)
Effective from Year 2021-22

SEMESTER-III

Course Code	Course Title	Teaching Scheme				Examination Scheme						
		Contact Hours			Credit	Theory			Practical			Total
		Theory	Pract	Tot al		Internal		Exter nal	Internal		Exter nal	
						Case Study	Tests		Term work	Tests		
MS320	Open Source Frameworks	3	3	6	6	10	20	70	15	15	70	200
MS321	Advanced Java	3	3	6	6	10	20	70	15	15	70	200
MS322	JavaScript Frameworks	-	3	3	3	-	-	-	15	15	70	100
MS323	Mobile Application technology	3	3	6	6	10	20	70	15	15	70	200
MS324-MS327	Elective-III	3	3	6	6	10	20	70	15	15	70	200
CL144.03C	Environmental Sciences	-	2	2	2	-		-	30		70	100
		12	17	29	29	400			600			1000

Elective-III

1. MS324 Game Development-II
2. MS325 Data Analytics
3. MS326 Ruby on rails
4. MS327 Internetworking with TCP/IP

Teaching and Examination Scheme (M.Sc. (IT) Programme)
Effective from Year 2021-22

SEMESTER-IV

Course Code	Course Title	Teaching Scheme				Internal	End Semester Examination		Total
		Contact Hours			Credit	Continuous Evaluation	Report	Presentation & Viva	
		Inst.	Industry	Total					
MS402	Dissertation/Project Work	2	28	30	30	200	200	400	800



ACADEMIC REGULATIONS & SYLLABUS 2022 -23

Faculty of Computer Science & Applications

Smt. Chandaben Mohanbhai Patel Institute of
Computer Applications

Bachelor of Computer Applications (B.C.A.) Programme

(Choice Based Credit System)



Charotar University of Science and Technology (CHARUSAT)
CHARUSAT Campus, At Post: Changa – 388421, Taluka: Petlad, District: Anand
Phone: 02697-247500, Fax: 02697-247100, Email: info@charusat.ac.in
www.charusat.ac.in

TEACHING AND EXAMINATIONSCHEME FOR

BCA PROGRAMME

**EFFECTIVE FROM
ACADEMIC YEAR 2022-23**

Teaching & Examination Scheme
Bachelor of Computer Applications (B.C.A.) Programme
 (Choice Based Credit System)
Effective from Year 2022 - 23
Semester - I

Course Code	Course Title	Teaching Scheme				Examination Scheme						
		Contact Hours			Credit	Theory			Practical			Total
		Theory	Practical	Total		Internal		Exter nal	Internal		Exter nal	
						Case Study	Tests/ Criteria		Term work	Tests		
CA121 - 122	Elective-I	3	-	3	3	10	20	70	-	-	-	100
CA123	Foundation of Programming	4	3	7	7	10	20	70	15	15	70	200
CA124	Digital Computer Fundamentals	4	-	4	4	10	20	70	-	-	-	100
CA125	Fundamentals of Web Designing	-	3	3	3	-	-	-	15	15	70	100
FS102C	Foundation Course on Chemistry and Biology	-	2	2	2	-	-	-	50		50	100
HS101.02 C	Communicative English	-	2	2	2	-		-	30		70	100
		11	10	21	21	300			400		700	

Elective-I	
Course Code	Course Title
CA121	Information Technology Trends
CA122	Business Organization and Principles of Management

Teaching & Examination Scheme
Bachelor of Computer Applications (B.C.A.) Programme
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Effective from Year 2022 - 23
Semester - II

Course Code	Course Title	Teaching Scheme				Examination Scheme						
		Contact Hours			Credit	Theory			Practical			Total
		Theory	Practical	Total		Internal		External	Internal		External	
						Case Study	Tests		Term work	Tests		
CA126-127	Elective-II	3	-	3	3	10	20	70	-	-	-	100
CA128	Advanced Web Designing	-	3	3	3	-	-	-	15	15	70	100
CA129	Fundamentals of Object Oriented Programming	4	3	7	7	10	20	70	15	15	70	200
CA130	Database Fundamentals	4	3	7	7	10	20	70	15	15	70	200
CA131	Foundation Course on Mathematics and Physics	-	2	2	2	-	-	-	50		50	100
HS201.02C	Liberal Arts	-	2	2	2	-		-	30		70	100
		11	13	24	24	300			500			800

Elective-II	
Course Code	Course Title
CA126	Fundamentals of E-Commerce
CA127	Business Economics

Teaching & Examination Scheme
Bachelor of Computer Applications (B.C.A.) Programme
(Choice Based Credit System)
Effective from Year 2022 - 23
Semester - III

Course Code	Course Title	Teaching Scheme				Examination Scheme						
		Contact Hours			Credit	Theory			Practical			Total
		Theory	Practical	Total		Internal		External	Internal		External	
						Case Study	Tests		Term work	Tests		
CA226-227	Elective - III	4	-	4	4	10	20	70	-	-	-	100
CA228	System Analysis and Design	3	-	3	3	10	20	70	-	-	-	100
CA229	Fundamentals of Data Structures and Algorithms	4	3	7	7	10	20	70	15	15	70	200
CA230	Fundamentals of Operating Systems	4	3	7	7	10	20	70	15	15	70	200
HSI21.02C	Creativity, Problem Solving and Innovation	-	2	2	2	-		-	30		70	100
CLI44.01C	Environmental Sciences	-	2	2	2	-		-	30		70	100
	University Elective – I **	-	2	2	2	-	-	-	30		70	100
		15	12	27	27	400			500			900

** Student will take any university elective offered by different institutions of university. CMPICA has decided to offer Introduction to Web Designing course for others.

Elective-III	
Course Code	Course Title
CA226	Computer Oriented Numerical Methods
CA227	Computer Oriented Management System

University Elective - I			
S.No.	Course Code	Course Name	Department/Faculty
1	CE281.01	Art of Programming	Engineering
2	CL281.01	Environmental Sustainability & Climate Change	Engineering
3	IT281.01	ICT Resources & Multimedia	Engineering
4	ME281.01	Engineering Drawing	Engineering
5	PH233.01	Fundamentals of Packaging	Pharmacy
6	PD260.01	Basic Laboratory Techniques	Applied Science
7	NR251.01	First Aid & Life Support	Nursing
8	PT191.01	Health Promotion & Fitness	Physiotherapy
9	BM231	Banking & Insurance	Management
10	EC281.01	Introduction to MATLAB Programming	Engineering
11	PD261	Astrophysics, Space and Cosmos-1	Applied Science
12	CL283	SDG Handprint Laboratory	Engineering
13	EE284	Python Programming	Engineering

Teaching & Examination Scheme
Bachelor of Computer Applications (B.C.A.) Programme
(Choice Based Credit System)
Effective from Year 2022 - 23
Semester - IV

Course Code	Course Title	Teaching Scheme				Examination Scheme						
		Contact Hours			Credit	Theory			Practical			Total
		Theory	Practical	Total		Internal		External	Internal		External	
						Case Study	Tests		Term work	Tests		
CA231-232	Elective - IV	-	3	3	3	-	-	-	10	20	70	100
CA233	Software Engineering	4	-	4	4	10	20	70	-	-	-	100
CA234	Advanced Database System	-	3	3	3	-	-	-	15	15	70	100
CA235	Open Source Technology	4	3	7	7	10	20	70	15	15	70	200
CA236	Computer Networks	4	-	4	4	10	20	70	-		-	100
HSIII.02 C	Human Values and Professional Ethics	-	2	2	2	-		-	30		70	100
	University Elective – II **	-	2	2	2	-	-	-	30		70	100
		12	13	25	25	300			500			800

** Student will take any university elective offered by different institutions of university. CMPICA has decided to offer Programming the Internet course for others.

Elective-IV	
Course Code	Course Title
CA231	Fundamentals of Embedded Programming
CA232	Foundation of Multimedia

University Elective - II			
S.No.	Course Code	Course Name	Department/Faculty
1	EC282.01	Prototyping Electronics with Arduino	Engineering
2	CE282.01	Web Designing	Engineering
3	CL282.01	Basics of Environmental Impact Assessment	Engineering
4	IT282.01	Internet Technology & Web Design	Engineering
5	ME282.01	Material Science	Engineering
6	PH238.01	Cosmetics in Daily Life	Pharmacy
7	NR261.01	Life Style Diseases & Management	Nursing
8	PT192.01	Occupational Health & Ergonomics	Physiotherapy
9	BM241	Health Care Management	Management
10	PD262	Astrophysics, Space and Cosmos-2	Applied Science
11	EE287	MATLAB Programming	Engineering
12	EE288	Maintenance of Household Apparatus	Engineering

Teaching & Examination Scheme
Bachelor of Computer Applications (B.C.A.) Programme
(Choice Based Credit System)
Effective from Year 2022 - 23
Semester - V

Course Code	Course Title	Teaching Scheme				Examination Scheme						
		Contact Hours			Credit	Theory			Practical			Total
		Theory	Practical	Total		Internal		External	Internal		External	
						Case Study	Tests		Term work	Tests		
CA324-326	Elective-V	4	3	7	7	10	20	70	15	15	70	200
CA327	Object Oriented Programming using JAVA	4	3	7	7	10	20	70	15	15	70	200
CA328	Fundamentals of Visual Programming	4	3	7	7	10	20	70	15	15	70	200
CA329	Introduction to Multi-Paradigms Programming language	-	3	3	3	-	-	-	15	15	70	100
HS131.02C	Communication and Soft skills	-	2	2	2				30		70	100
		12	14	26	26	300			500			800

Elective-V	
Course Code	Course Title
CA324	Document Databases
CA325	Foundation of Data Science
CA326	Advanced Embedded Programming

Teaching & Examination Scheme
Bachelor of Computer Applications (B.C.A.) Programme
(Choice Based Credit System)
Effective from Year 2022 - 23
Semester - VI

Course Code	Course Title	Teaching Scheme				Examination Scheme						
		Contact Hours			Credit	Theory			Practical			Total
		Theory	Practical	Total		Internal		External	Internal		External	
						Case Study	Tests		Term work	Tests		
CA330	Basics of Mobile Applications	3	3	6	6	10	20	70	15	15	70	200
CA331	Software Testing	-	3	3	3	-	-	-	15	15	70	100
CA332	Mini Project	-	15	15	15	-	-	-	100		200	300
HS132.02 C	Contributor Personality Development	-	2	2	2	-		-	30		70	100
		03	23	26	26	100			600			700

Teaching & Examination Scheme
Bachelor of Computer Applications (B.C.A.) Programme
(Choice Based Credit System)
Effective from Year 2022 - 23
Semester - VII

Course Code	Course Title	Teaching Scheme				Examination Scheme						
		Contact Hours			Credit	Theory			Practical			Total
		Theory	Practical	Total		Internal		External	Internal		External	
						Case Study	Tests		Term work	Tests		
CA333	Online MOOC Course on Current Trends of Information Technology #	-	-	-	03	-	-	-	-	-	-	
CA334	Minor Project	-	24	24	24	-	-	-	200	400	600	
		-	24	24	27	100			600		700	

Teaching & Examination Scheme
Bachelor of Computer Applications (B.C.A.) Programme
(Choice Based Credit System)
Effective from Year 2022 - 23
Semester - VIII

Course Code	Course Title	Teaching Scheme				Examination Scheme						
		Contact Hours			Credit	Theory			Practical			Total
		Theory	Practical	Total		Internal		External	Internal		External	
						Case Study	Tests		Term work	Tests		
CA335	Dissertation	-	24	24	24	-	-	-	200	400	600	
		-	24	24	24	-			600	600		



SYLLABUS 2022 -23

Faculty of Computer Science & Applications

Smt. Chandaben Mohanbhai Patel Institute of
Computer Applications

Bachelor of Science in Information Technology (B.Sc. (IT))
Programme

(Choice Based Credit System)



Charotar University of Science and Technology (CHARUSAT)
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TEACHING AND EXAMINATION SCHEME FOR

B.Sc.IT PROGRAMME

**EFFECTIVE FROM
ACADEMIC YEAR 2022-23**

Teaching & Examination Scheme
Bachelor of Science in Information Technology (B.Sc. (IT)) Programme
(Choice Based Credit System)
Effective from Year 2022 - 23
Semester - I

Course Code	Course Title	Teaching Scheme				Examination Scheme						
		Contact Hours			Credit	Theory			Practical			Total
		Theory	Practical	Total		Internal		External	Internal		External	
						Case Study	Tests/ Criteria		Term work	Tests		
CA41I-412	Elective-I	3	-	3	3	10	20	70	-	-	-	100
CA413	Introduction to Programming	4	3	7	7	10	20	70	15	15	70	200
CA414	Information Technology and Digital Electronics	3	-	3	3	10	20	70	-	-	-	100
CA415	Fundamentals of Database Management System	3	3	6	6	10	20	70	15	15	70	200
FSI02C	Foundation Course on Chemistry and Biology	-	2	2	2	-	-	-	50		50	100
HS10L02C	Communicative English	-	2	2	2	-		-	30		70	100
		13	10	23	23	400			400			800

Elective-I	
Course Code	Course Title
CA41I	Fundamentals of Business Organization
CA412	Information Technology in Business

Teaching & Examination Scheme
Bachelor of Science in Information Technology (B.Sc. (IT)) Programme
(Choice Based Credit System)
Effective from Year 2022 - 23
Semester - II

Course Code	Course Title	Teaching Scheme				Examination Scheme						
		Contact Hours			Credit	Theory			Practical			Total
		Theory	Practical	Total		Internal		External	Internal		External	
						Case Study	Tests		Term work	Tests		
CA416-417	Elective-II	3	-	3	3	10	20	70	-	-	-	100
CA418	Fundamental of Commerce and business processes	3	-	3	3	10	20	70	-	-	-	100
CA419	Introduction to Object Oriented Programming	4	3	7	7	10	20	70	15	15	70	200
CA420	Fundamentals of Operating Systems	3	3	6	6	10	20	70	15	15	70	200
FS101C	Foundation Course on Mathematics and Physics	-	2	2	2	-	-	-	50		50	100
HS201.02C-210.02C	Liberal Arts	-	2	2	2	-		-	30		70	100
		13	10	23	23	400			400			800

Elective-II	
Course Code	Course Title
CA416	Managerial Economics
CA417	Business Models for e-Commerce

Teaching & Examination Scheme
Bachelor of Science in Information Technology (B.Sc. (IT)) Programme
(Choice Based Credit System)
Effective from Year 2022 - 23
Semester - III

Course Code	Course Title	Teaching Scheme				Examination Scheme						
		Contact Hours			Credit	Theory			Practical			Total
		Theory	Practical	Total		Internal		External	Internal		External	
						Case Study	Tests		Term work	Tests		
CA514-515	Elective - III	3	-	3	3	10	20	70	-	-	-	100
CA516	System Analysis and Design	3	-	3	3	10	20	70	-	-	-	100
CA517	Introduction to Data Structures	4	3	7	7	10	20	70	15	15	70	200
CA518	Programming the Internet	3	3	6	6	10	20	70	15	15	70	200
HS121.02 C	Creativity, Problem Solving and Innovation	-	2	2	2	-		-	30		70	100
CL144.02 C	Environmental Sciences	-	2	2	2	-		-	30		70	100
	University Elective – I **	-	2	2	2	-	-	-	30		70	100
		13	12	25	25	400			500			900

** Student will take any university elective offered by different institutions of university. CMPICA has decided to offer **Introduction to Web Designing** course for others.

Elective-III	
Course Code	Course Title
CA514	Introduction to Data Warehouse
CA515	Numerical Methods

University Elective - I			
S.No.	Course Code	Course Name	Department/Faculty
1	CE281.01	Art of Programming	Engineering
2	CL281.01	Environmental Sustainability & Climate Change	Engineering
3	IT281.01	ICT Resources & Multimedia	Engineering
4	ME281.01	Engineering Drawing	Engineering
5	PH233.01	Fundamentals of Packaging	Pharmacy
6	PD260.01	Basic Laboratory Techniques	Applied Science
7	NR251.01	First Aid & Life Support	Nursing
8	PT191.01	Health Promotion & Fitness	Physiotherapy
9	BM231	Banking & Insurance	Management
10	EC281.01	Introduction to MATLAB Programming	Engineering
11	PD261	Astrophysics, Space and Cosmos-1	Applied Science
12	CL283	SDG Handprint Laboratory	Engineering
13	EE284	Python Programming	Engineering

Teaching & Examination Scheme
Bachelor of Science in Information Technology (B.Sc. (IT)) Programme
(Choice Based Credit System)
Effective from Year 2022 - 23
Semester – IV

Course Code	Course Title	Teaching Scheme				Examination Scheme						
		Contact Hours			Credit	Theory			Practical			Total
		Theory	Practical	Total		Internal		External	Internal		External	
						Case Study	Tests		Term work	Tests		
CA519-CA520	Elective - IV	-	3	3	3	-	-	-	10	20	70	100
CA521	Fundamentals of Visual Programming	3	3	6	6	10	20	70	15	15	70	200
CA522	Multi-paradigm programming language	-	3	3	3	-	-	-	15	15	70	100
CA523	Database Administration	4	3	7	7	10	20	70	15	15	70	200
CA524	Data Communication and Networks	4	-	4	4	10	20	70	-		-	100
HSIII.02C	Human Values and Professional Ethics	-	2	2	2	-		-	30		70	100
	University Elective – II **	-	2	2	2	-	-	-	30		70	100
		11	16	27	27	300			600			900

** Student will take any university elective offered by different institutions of university. CMPICA has decided to offer

Programming the Internet course for others.

Elective-IV	
Course Code	Course Title
CA519	Introduction to Internet of Things
CA520	Fundamentals of Multimedia

University Elective - II			
S.No.	Course Code	Course Name	Department/Faculty
1	EC282.01	Prototyping Electronics with Arduino	Engineering
2	CE282.01	Web Designing	Engineering
3	CL282.01	Basics of Environmental Impact Assessment	Engineering
4	IT282.01	Internet Technology & Web Design	Engineering
5	ME282.01	Material Science	Engineering
6	PH238.01	Cosmetics in Daily Life	Pharmacy
7	NR261.01	Life Style Diseases & Management	Nursing
8	PT192.01	Occupational Health & Ergonomics	Physiotherapy
9	BM241	Health Care Management	Management
10	PD262	Astrophysics, Space and Cosmos-2	Applied Science
11	EE287	MATLAB Programming	Engineering
12	EE288	Maintenance of Household Apparatus	Engineering

Teaching & Examination Scheme
Bachelor of Science in Information Technology (B.Sc. (IT)) Programme
(Choice Based Credit System)
Effective from Year 2022 - 23
Semester - V

Course Code	Course Title	Teaching Scheme				Examination Scheme						
		Contact Hours			Credit	Theory			Practical			Total
		Theory	Practical	Total		Internal		External	Internal		External	
						Case Study	Tests		Term work	Tests		
CA616-617	Elective-V	3	3	6	6	10	20	70	15	15	70	200
CA618	Programming with JAVA	4	3	7	7	10	20	70	15	15	70	200
CA619	Data Science	3	3	6	6	10	20	70	15	15	70	200
CA620	Object Oriented Analysis and Design	4	-	4	4	10	20	70	-	-	-	100
HS131.02C	Communication and Soft skills	-	2	2	2				30		70	100
		14	11	25	25	400			400			800

Elective-V	
Course Code	Course Title
CA616	Advanced Internet of Things
CA617	Introduction to Game Development

Teaching & Examination Scheme
Bachelor of Science in Information Technology (B.Sc. (IT)) Programme
(Choice Based Credit System)
Effective from Year 2022 – 23
Semester - VI

Course Code	Course Title	Teaching Scheme				Examination Scheme						
		Contact Hours			Credit	Theory			Practical			Total
		Theory	Practical	Total		Internal		External	Internal		External	
						Case Study	Tests		Term work	Tests		
CA621	Basics of Mobile Applications	3	3	6	6	10	20	70	15	15	70	200
CA622	Software Testing	-	3	3	3	-	-	-	15	15	70	100
CA623	Mini Project	-	15	15	15	-	-	-	100		200	300
HS132.02C	Contributor Personality Development	-	2	2	2	-		-	30		70	100
		03	23	26	26	100			600		700	

Teaching & Examination Scheme
Bachelor of Science in Information Technology (B.Sc. (IT)) Programme
(Choice Based Credit System)
Effective from Year 2022 – 23
Semester - VII

Course Code	Course Title	Teaching Scheme				Examination Scheme						
		Contact Hours			Credit	Theory			Practical			Total
		Theory	Practical	Total		Internal		External	Internal		External	
						Case Study	Tests		Term work	Tests		
CA624	Online MOOC Course on Current Trends of Information Technology #	-	-	-	03	-	-	-	-	-	-	-
CA625	Minor Project	-	24	24	24	-	-	-	200		400	600
		-	24	24	27	-			600			600

Students can select any MOOC course of their choice related to current trends of Information Technology with at least 30 hours. 03 credits will be transferred in the result of students based on this course.

Teaching & Examination Scheme
Bachelor of Science in Information Technology (B.Sc. (IT)) Programme
(Choice Based Credit System)
Effective from Year 2022 – 23
Semester - VIII

Course Code	Course Title	Teaching Scheme				Examination Scheme						
		Contact Hours			Credit	Theory			Practical			Total
		Theory	Practical	Total		Internal		External	Internal		External	
						Case Study	Tests		Term work	Tests		
CA626	Dissertation	-	24	24	24	-	-	-	200	400	600	
		-	24	24	24	-			600		600	



ACADEMIC REGULATIONS & SYLLABUS

Faculty of Computer Science & Applications
Smt. Chandaben Mohanbhai Patel Institute of Computer
Applications
Master of Computer Applications(M.C.A) Programme
(Choice Based Credit System)



**TEACHING SCHEME
FOR
MCA PROGRAMME

EFFECTIVE FROM
ACADEMIC YEAR 2022-23**

Teaching & Examination Scheme
Master of Computer Applications (M.C.A.) Programme
 (Choice Based Credit System)
Effective from Year 2022 - 23
Semester - I

Course Code	Course Title	Teaching Scheme				Examination Scheme						
		Contact Hours			Credit	Theory			Practical			Total
		Theory	Practical	Total		Internal		External	Internal		External	
						Case Study	Tests		Term work	Tests		
CA859-862	Elective-I	4	-	4	4	10	20	70	-	-	-	100
CA863	Enterprise Computing using Java EE	4	3	7	7	10	20	70	15	15	70	200
CA864	Programming with .NET Architecture	3	3	6	6	10	20	70	15	15	70	200
CA865	NoSQL Database	4	3	7	6	10	20	70	15	15	70	200
HS141.02 C	Foreign Languages	-	2	2	2	-		-	30		70	100
HS105.02 C	Academic Speaking and Presentation Skills					-			30			
		15	11	26	26	400			400			800

Elective-I	
Course Code	Course Title
CA859	Cloud Computing
CA860	Cryptography & Network Security
CA861	Block Chain Technology
CA862	Quantum Computing

Teaching & Examination Scheme
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Semester-II

Course Code	Course Title	Teaching Scheme				Examination Scheme						
		Contact Hours			Credit	Theory			Practical			Total
		Theory	Practical	Total		Internal		External	Internal		External	
						Case Study	Tests		Term work	Tests		
CA866-869	Elective-II	3	3	6	6	10	20	70	15	15	70	200
CA870	Software Quality Assurance	3	3	6	6	10	20	70	15	15	70	200
CA871	Advanced Mobile Programming	3	3	6	6	10	20	70	15	15	70	200
CA872	Software Engineering with Agile and DevOps	4	-	4	4	10	20	70	-	-	-	100
HS106.02 C	Academic Writing	-	2	2	2	-	-	-	30		70	100
	University Elective-III **	-	2	2	2	-		-	30		70	100
		13	13	26	26	400			500			900

Student will take any university elective offered by different institutions of university. CMPICA has decided to offer **Internet and Web Designing and Mobile Application Development** course for others.

Elective-II	
Course Code	Course Title
CA866	Game Development using Unity
CA867	Python Web framework
CA868	Framework and Applications
CA869	HTTP Web Service for Enterprise Application

University Elective-I

No	Course Code	Course Name	Department/Faculty
1	EE782.01	Energy Audit and Management	Engineering
2	CE771.01	Project Management	Engineering
3	PT796.01	Fitness & Nutrition	Physiotherapy
4	MB651	Software based Statistical Analysis	Management
5	NR755	First Aid & Life Support	Nursing
6	OC733.01	Introduction to Polymer Science	Applied Science
7	MA771.01	Reliability and Risk Analysis	Mathematics
8	ME781.01	Occupational Health & Safety	Engineering
9	MA772.01	Design of Experiments	Mathematics
10	RD701.01	Introduction to Analytical Techniques	Applied Science
11	RD702.01	Introduction to Nanoscience And Technology	Applied Science
12	PH891	Community Pharmacy Ownership	Pharmacy
13	PH892	Intellectual Property Rights	Pharmacy
14	PSE55	Astrophysics ,Space and Cosmos	Applied Science

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Semester-III

Course Code	Course Title	Teaching Scheme				Examination Scheme						
		Contact Hours			Credit	Theory			Practical			Total
		Theory	Practical	Total		Internal		External	Internal		External	
						Case Study	Tests		Term work	Tests		
CA934-937	Elective-III	3	3	6	6	10	20	70	15	15	70	200
CA938	Advanced Web Designing	3	3	6	6	10	20	70	15	15	70	200
CA939	Mini Project	-	12	12	12	-	-	-	100		300	400
CA940	Green Computing		2	2	02	-	-	-	30		70	100
		06	20	26	26	200			700			900

Elective-III	
Course Code	Course Title
CA934	Digital Image Processing
CA935	Object Oriented Programming for Smart Contracts
CA936	Data Analytics
CA937	Internet of Things

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Semester-IV

Course Code	Course Title	Teaching Scheme				Internal	End Semester Examination		Total
		Contact Hours			Credit	Continuous Evaluation	Report	Presentation & Viva	
		Inst.	Industry	Total					
CA941	Dissertation/ Project Work	2	28	30	30	200	200	400	800



ACADEMIC REGULATIONS & SYLLABUS

Faculty of Computer Science & Applications

Smt. Chandaben Mohanbhai Patel Institute of
Computer Applications

M.Sc.(IT) Programme
(Choice Based Credit System)



**TEACHING SCHEME
FOR
M.Sc.IT PROGRAMME
(1ST and 2ND YEAR)

EFFECTIVE FROM
ACADEMIC YEAR 2022-23**

Teaching & Examination Scheme
Master of Science in Information Technology (M.Sc.(IT)) Programme
(Choice Based Credit System)
Effective from Year 2022 - 23
Semester - I

Course Code	Course Title	Teaching Scheme				Examination Scheme						
		Contact Hours			Credit	Theory			Practical			Total
		Theory	Practical	Total		Internal		External	Internal		External	
						Case Study	Tests		Term work	Tests		
MS120-123	Elective-I	4	-	4	4	10	20	70	-	-	-	100
MS124	Advanced Java	3	3	6	6	10	20	70	15	15	70	200
MS125	Web Development using .NET	3	3	6	6	10	20	70	15	15	70	200
MS126	Advanced Database Administration	4	3	7	7	10	20	70	15	15	70	200
HS141.02 C	Foreign Languages	-	2	2	2	-		-	30		70	100
HS105.02 C	Academic Speaking and Presentation Skills					-						
		14	11	25	25	400			400			800

Elective-I	
Course Code	Course Title
MS120	Cloud Computing Essentials
MS121	Mobile and Wireless Communications
MS122	Fuzzy Logic and Applications
MS123	Distributed Operating Systems

Teaching & Examination Scheme
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Effective from Year 2022 - 23
Semester - II

Course Code	Course Title	Teaching Scheme				Examination Scheme						
		Contact Hours			Credit	Theory			Practical			Total
		Theory	Practical	Total		Internal		External	Internal		External	
						Case Study	Tests		Term work	Tests		
MS223-226	Elective-II	3	3	6	6	10	20	70	15	15	70	200
MS227	Web Development Using Open Source	3	3	6	6	10	20	70	15	15	70	200
MS228	Advanced Mobile Application Development	3	3	6	6	10	20	70	15	15	70	200
MS229	Modern Software Engineering	4	-	4	4	10	20	70	-	-	-	100
HS106.02 C	Academic Writing	-	2	2	2	-	-	-	30		70	100
	University Elective-III **	-	2	2	2	-		-	30		70	100
		13	13	26	26	400			500			900

Student will take any university elective offered by different institutions of university. CMPICA has decided to offer **Internet and Web Designing and Mobile Application Development** course for others.

Elective-II	
Course Code	Course Title
MS223	Game Design
MS224	Advanced Python Programming
MS225	Block Chain Programming
MS226	HTTP Web Service for Enterprise Application

University Elective-III

No	Course Code	Course Name	Department/Faculty
1	EE782.01	Energy Audit and Management	Engineering
2	CE771.01	Project Management	Engineering
3	PT796.01	Fitness & Nutrition	Physiotherapy
4	MB651	Software based Statistical Analysis	Management
5	NR755	First Aid & Life Support	Nursing
6	OC733.01	Introduction to Polymer Science	Applied Science
7	MA771.01	Reliability and Risk Analysis	Mathematics
8	ME781.01	Occupational Health & Safety	Engineering
9	MA772.01	Design of Experiments	Mathematics
10	RD701.01	Introduction to Analytical Techniques	Applied Science
11	RD702.01	Introduction to Nanoscience And Technology	Applied Science
12	PH891	Community Pharmacy Ownership	Pharmacy
13	PH892	Intellectual Property Rights	Pharmacy
14	PSE55	Astrophysics ,Space and Cosmos	Applied Science

Teaching & Examination Scheme
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Effective from Year 2022 - 23
Semester - III

Course Code	Course Title	Teaching Scheme				Examination Scheme						
		Contact Hours			Credit	Theory			Practical			Total
		Theory	Practical	Total		Internal		External	Internal		External	
						Case Study	Tests		Term work	Tests		
MS328-331	Elective-III	4	3	7	7	10	20	70	15	15	70	200
MS332	Software Quality Assurance and Testing	3	3	6	6	10	20	70	15	15	70	200
MS333	Mini Project	-	12	12	12	-	-	-	100		300	400
CL144.03 C	Environmental Sciences	-	2	2	2	-	-	-	30		70	100
		07	20	27	27	200			700			900

Elective-III	
Course Code	Course Title
MS328	Advanced Game Development
MS329	Data Science
MS330	IOT enabling Technologies
MS331	Advanced web designing

Teaching & Examination Scheme
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Semester - IV

Course Code	Course Title	Teaching Scheme			Internal	End Semester Examination		Total	
		Contact Hours		Credit	Continuous Evaluation	Report	Presentation & Viva		
		Inst.	Industry						Total
MS403	Dissertation/ Project Work	2	28	30	30	200	200	400	800