

University of Mumbai



No. UG/23 of 2020-21

CIRCULAR:-


Attention of the Principals of the Affiliated Colleges, the Head University Departments and Directors of the recognized Institutions in Science & Technology Faculty is invited to the syllabus uploaded Academic Authority Unit which was accepted by the Academic Council at its meeting held on 7th April, 2014 vide item No. 4.39 relating to the revised syllabus as per the (CBGS) of M.Sc. in Information Technology (Sem. III & IV).

They are hereby informed that the recommendations made by the Ad-hoc Board of Studies in Information Technology at its meeting held on 17th April, 2020 vide Item No.1 and subsequently made by the Board of Deans at its meeting held on 20th July, 2020 vide item No. 48 have been accepted by the Academic Council at its meeting held on 23rd July, 2020 vide item No. 4.100 and that in accordance therewith, the revised syllabus as per the (CBCS) of M.Sc. Part-II (Sem-III & IV) in Information Technology has been brought into force with effect from the academic year 2020-21 accordingly. (The same is available on the University's website www.mu.ac.in).

MUMBAI - 400 032

11th November, 2020

To


(Dr. Vinod Patil)
I/c REGISTRAR

The Principals of the affiliated Colleges, the Head University Departments and Directors of the recognized Institutions in Science & Technology Faculty. (Circular No. UG/334 of 2017-18 dated 9th January, 2018.)

A.C/4.100/23/07/2020


No. UG/23 -A of 2020-21

MUMBAI-400 032

11th November, 2020

Copy forwarded with Compliments for information to:-

- 1) The Dean, Faculty of Science & Technology,
- 2) The Chairman, Ad-hoc Board of Studies in Information Technology,
- 3) The Director, Board of Examinations and Evaluation,
- 4) The Director, Board of Students Development,
- 5) The Co-ordinator, University Computerization Centre,


(Dr. Vinod Patil)
I/c REGISTRAR

AC _____

Item No: _____

UNIVERSITY OF MUMBAI



Syllabus for Approval

Sr. No.	Heading	Particulars
1.	Title of the Course	M.Sc. (Information Technology) Part II
2.	Eligibility for Admission (Lateral Entry) (Students who would like to have additional degrees)	Students who have completed MCA, M.Sc. Computer Science / Mathematics / Statistics / Physics / Electronics / Data Science, M.B.A. (I.T), M.C.M., M.Tech (20% extra seats to provided for these students) M.Sc IT from University of Mumbai (with previous syllabus under General IT) or other recognized Institutions who are willing to do specialized degree
3.	Passing Marks	40%
4.	Ordinances / Regulations (if, any)	Existing ordinances and regulations.
5.	Number of years / Semesters	Two years – Four Semesters
6.	Level	P.G. / U.G. /Diploma / Certificate (Strike out which is not applicable)
7.	Pattern	Yearly / Semester, Choice Based (Strike out which is not applicable)
8.	Status	New / Revised
9.	To be implemented from Academic year	From the Academic Year <u>2020 – 2021</u>

Date: April 17, 2020

Name of the BoS Chairperson / ~~Dean~~:

Signature: _____

Dr. (Mrs.) R. Srivaramangai
(rsrimangai@udit.mu.ac.in)

UNIVERSITY OF MUMBAI



Syllabus for M.Sc. I.T. Part II
Semester III and IV
Programme: M.Sc.
Subject: Information Technology
CHOICE BASED(REVISED)
with effect from the academic year
2020 – 2021

Artificial Intelligence Track
Image Processing Track
Cloud Computing Track
Security Track

SEMESTER - III					
Course Title					
Course Code	Theory	Credits	Course Code	Practical	Credits
PSIT301	Technical Writing and Entrepreneurship Development	4	PSIT3P1	Project Documentation and Viva	2
Elective 1: Select Any one from the courses listed below along with corresponding practical course					
PSIT302a	Applied Artificial Intelligence	4	PSIT3P2a	Applied Artificial Intelligence Practical	2
PSIT302b	Computer Vision		PSIT3P2b	Computer Vision Practical	
PSIT302c	Cloud Application Development		PSIT3P2c	Cloud Application Development Practical	
PSIT302d	Security Breaches and Countermeasures		PSIT3P2d	Security Breaches and Countermeasures Practical	
Elective 2: Select Any one from the courses listed below along with corresponding practical course					
PSIT303a	Machine Learning	4	PSIT3P3a	Machine Learning Practical	2
PSIT303b	Biomedical Image Processing		PSIT3P3b	Biomedical Image Processing Practical	
PSIT303c	Cloud Management		PSIT3P3c	Cloud Management Practical	
PSIT303d	Malware Analysis		PSIT3P3d	Malware Analysis Practical	
Elective 3: Select Any one from the courses listed below along with corresponding practical course					
PSIT304a	Robotic Process Automation	4	PSIT3P4a	Robotic Process Automation Practical	2
PSIT304b	Virtual Reality and Augmented Reality		PSIT3P4b	Virtual Reality and Augmented Reality Practical	
PSIT304c	Data Center Technologies		PSIT3P4c	Data Center Technologies Practical	
PSIT304d	Offensive Security		PSIT3P4d	Offensive Security Practical	
	Total Theory Credits	16		Total Practical Credits	8
Total Credits for Semester III: 24					

SEMESTER - IV					
Course Title					
Course Code	Theory	Credits	Course Code	Practical	Credits
PSIT401	Blockchain	4	PSIT4P1		2
Elective 1: Select Any one from the courses listed below along with corresponding practical course					
PSIT402a	Natural Language Processing	4	PSIT4P2a	Natural Language Processing Practical	2
PSIT402b	Digital Image Forensics		PSIT4P2b	Digital Image Forensics Practical	
PSIT402c	Advanced IoT		PSIT4P2c	Advanced IoT Practical	
PSIT402d	Cyber Forensics		PSIT4P2d	Cyber Forensics Practical	
Elective 2: Select Any one from the courses listed below along with corresponding practical course					
PSIT403a	Deep Learning	4	PSIT4P3a	Deep Learning Practical	2
PSIT403b	Remote Sensing		PSIT4P3b	Remote Sensing Practical	
PSIT403c	Server Virtualization on VMWare Platform		PSIT4P3c	Server Virtualization on VMWare Platform Practical	
PSIT403d	Security Operations Center		PSIT4P3d	Security Operations Center Practical	
Elective 3: Select Any one from the courses listed below. Project Implementation and Viva is compulsory					
PSIT404a	Human Computer Interaction	4	PSIT4P4	Project Implementation and Viva	2
PSIT404b	Advanced Applications of Image Processing				
PSIT404c	Storage as a Service				
PSIT404d	Information Security Auditing				
	Total Theory Credits	16		Total Practical Credits	8
Total Credits for Semester IV: 24					

If a student selects all 6 papers of Artificial Intelligence Track, he should be awarded the degree **M.Sc. (Information Technology), Artificial Intelligence Specialisation.**

If a student selects all 6 papers of Image Processing Track, he should be awarded the degree **M.Sc. (Information Technology), Image Processing Specialisation.**

If a student selects all 6 papers of Cloud Computing Track, he should be awarded the degree **M.Sc. (Information Technology), Cloud Computing Specialisation**

If a student selects all 6 papers of Artificial Security Track, he should be awarded the degree **M.Sc. (Information Technology), Security Specialisation**

All other students will be awarded M.Sc. (Information Technology) degree.

University of Mumbai



No. UG/ 106 of 2019-20

CIRCULAR:-

Attention of the Principals of the Affiliated Colleges, the Head of the University Department and Directors of the recognized Institutions in Science & Technology Faculty is invited to the syllabus uploaded by Academic Authority Unit which was accepted by the Academic Council at its meeting held on 27th February, 2013 **vide** item No. 4.133 relating to the revised syllabus as per (CBSGS) for M.Sc. Information Technology (Sem. I & II).

They are hereby informed that the recommendations made by the Ad-hoc Board of Studies in Information & Technology at its meeting held on 25th July, 2019 have been accepted by the Academic Council at its meeting held on 26th July, 2019 **vide** item No.4.76 and that in accordance therewith, the revised syllabus as per the (CBCS) for the M.Sc. (I. T.) (Part - I) (Sem.-I & II) has been brought into force with effect from the academic year 2019-20, accordingly. (The same is available on the University's website www.mu.ac.in).

MUMBAI - 400 032
11th September, 2019

[Signature]
(Dr. Ajay Deshmukh)
REGISTRAR

To

The Principals of the affiliated Colleges, the Head of the University Department and Directors of the recognized Institutions in Science & Technology Faculty. (Circular No. UG/334 of 2017-18 dated 9th January, 2018.)

A.C/4.76/26/07/2019

No. UG/ 106 -A of 2019-20

MUMBAI-400 032

11th September, 2019

Copy forwarded with Compliments for information to:-

- 1) The I/c Dean, Faculty of Science & Technology,
- 2) The Chairman, Board of Studies in Information & Technology,
- 3) The Director, Board of Examinations and Evaluation,
- 4) The Director, Board of Students Development,
- 5) The Co-ordinator, University Computerization Centre,

[Signature]
(Dr. Ajay Deshmukh)
REGISTRAR

Cover Page

AC 26/07/2019
Item No. 476

UNIVERSITY OF MUMBAI



Syllabus for Approval

Sr. No.	Heading	Particulars
1	Title of the Course	M.Sc in Information Technology Part I
2	Eligibility for Admission	B.Sc(IT), B.Sc(Ces), B.E, BCA (Sem I&II) B.Sc(Phy), B.Sc(Maths), B.Sc(Stats) B.Sc(Electronics)
3	Passing Marks	40%
4	Ordinances / Regulations (if any)	-
5	No. of Years / Semesters	Two Years - Four Semesters
6	Level	P.G. / U.G. / Diploma / Certificate (Strike out which is not applicable)
7	Pattern	Yearly / Semester (Strike out which is not applicable)
8	Status	New / Revised (Strike out which is not applicable)
9	To be implemented from Academic Year	From Academic Year 2019-2020

Date: 25/7/19

Signature :

Name of BOS Chairperson / Dean : Dr. (Mrs.) R. Srivaramangai

rsrivamangai@uadit.mv.ac.in

Rain
R. G. Deshmukh
25/7/19

Academic Council: 26/07/2019

Item No: 4.76

UNIVERSITY OF MUMBAI



Syllabus for M.Sc. Part I
(Semester I and II)

Programme: M.Sc.

Subject: Information Technology

(Choice Based Credit System with effect from
the academic year 2019 – 2020)

Semester – I		
Course Code	Course Title	Credits
PSIT101	Research in Computing	4
PSIT102	Data Science	4
PSIT103	Cloud Computing	4
PSIT104	Soft Computing Techniques	4
PSIT1P1	Research in Computing Practical	2
PSIT1P2	Data Science Practical	2
PSIT1P3	Cloud Computing Practical	2
PSIT1P4	Soft Computing Techniques Practical	2
Total Credits		24

Semester – II		
Course Code	Course Title	Credits
PSIT201	Big Data Analytics	4
PSIT202	Modern Networking	4
PSIT203	Microservices Architecture	4
PSIT204	Image Processing	4
PSIT2P1	Big Data Analytics Practical	2
PSIT2P2	Modern Networking Practical	2
PSIT2P3	Microservices Architecture Practical	2
PSIT2P4	Image Processing Practical	2
Total Credits		24