



Re- accredited with A ++ Grade (CGPA 3.65) by NAAC
Category- I University Status awarded by UGC

No. AAMS_UGS/ICC/2025-26/7

Date: 24th April, 2025

CIRCULAR:-

All the Principals of the Affiliated Colleges, Directors of the Recognized Institutions and the Head of the University Departments are hereby informed that the recommendations made by the **Board of Studies under Faculty of Science** at its meeting held on 08th August, 2024 and subsequently passed by the Board of Deans at its meeting held on 3rd September, 2024 vide Item No. 6.12 have been accepted by the Academic Council at its meeting held on 4th December, 2024 vide ItemNo.6.11 and accordingly the Equivalence paper of following Science Programs was approved as per appendix with effect from the academic year 2024-25.

Sr. No.	Name of Examination	Appendix
1	M.Sc. (Biotechnology)	A
2	M.Sc. (Biophysics)	B
3	B.Sc & M.Sc. (Botany)	C
4	M.Sc. (Physics)	D
5	B.Sc. (Information Technology)	E

(The Circular is available on the University's website www.mu.ac.in).

MUMBAI – 400 032
24th April, 2025
To

(Dr. Prasad Karande)
REGISTRAR

All the Principals of the Affiliated Colleges, Directors of the Recognized Institutions and the Head of the University Departments.

AC./6.11/04/12/2024

Copy forwarded with Compliments for information to:-

- 1) The Chairman, Board of Deans,
- 2) The Dean, Faculty of Science & Technology,
- 3) The Chairman, **Board of Studies under Faculty of Science**
- 4) The Director, Board of Examinations and Evaluation,
- 5) The Director, Department of Students Development,
- 6) The Director, Department of Information & Communication Technology,
- 7) The Director, Centre for Distance and Online Education (CDOE) Vidyanagari,
- 8) The Deputy Registrar, Admission, Enrolment, Eligibility & Migration Department (AEM),

Circular No. AAMS_UGS/ICC/2025-26/7 Date – 24th April, 2025
Priya Desktop_AAMS (III) _Circular_AC- 4-12-2024

Copy forwarded for information and necessary action to :-	
1	The Deputy Registrar, (Admissions, Enrolment, Eligibility and Migration Dept)(AEM), dr@eligi.mu.ac.in
2	The Deputy Registrar, Result unit, Vidyanagari drresults@exam.mu.ac.in
3	The Deputy Registrar, Marks and Certificate Unit,. Vidyanagari dr.verification@mu.ac.in
4	The Deputy Registrar, Appointment Unit, Vidyanagari dr.appointment@exam.mu.ac.in
5	The Deputy Registrar, CAP Unit, Vidyanagari cap.exam@mu.ac.in
6	The Deputy Registrar, College Affiliations & Development Department (CAD), deputyregistrar.uni@gmail.com
7	The Deputy Registrar, PRO, Fort, (Publication Section), Pro@mu.ac.in
8	The Deputy Registrar, Executive Authorities Section (EA) eau120@fort.mu.ac.in He is requested to treat this as action taken report on the concerned resolution adopted by the Academic Council referred to the above circular.
9	The Deputy Registrar, Research Administration & Promotion Cell (RAPC), rapc@mu.ac.in
10	The Deputy Registrar, Academic Appointments & Quality Assurance (AAQA) dy.registrar.tau.fort.mu.ac.in ar.tau@fort.mu.ac.in
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14	The Assistant Registrar, Administrative Sub-Campus Thane, thanesubcampus@mu.ac.in
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16	The Assistant Registrar, Ratnagiri Sub-centre, Ratnagiri, ratnagirisubcentar@gmail.com
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18	Director, Innovation, Incubation and Linkages, Dr. Sachin Laddha pinkumanno@gmail.com
19	Director, Department of Lifelong Learning and Extension (DLLE), dlleuniversityofmumbai@gmail.com

Copy for information :-	
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3	P.A to Registrar, registrar@fort.mu.ac.in
4	P.A to all Deans of all Faculties
5	P.A to Finance & Account Officers, (F & A.O), camu@accounts.mu.ac.in

To,

1	The Chairman, Board of Deans pvc@fort.mu.ac.in
2	Faculty of Humanities, Offg. Dean 1. Prof.Anil Singh Dranilsingh129@gmail.com Offg. Associate Dean 2. Prof.Manisha Karne mkarne@economics.mu.ac.in 3. Dr.Suchitra Naik Naiksuchitra27@gmail.com
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6	The Director, Department of Information & Communication Technology, director.dict@mu.ac.in

AC- 04/12/2024

Item No. – 6.11 (A to E)

University of Mumbai



Science Programme Equivalence

Sr. No.	Name of the Programme	Appendix
1	M.Sc. (Biotechnology)	A
2	M.Sc. (Biophysics)	B
3	B.Sc & M.Sc. (Botany)	C
4	M.Sc. (Physics)	D
5	B.Sc. (Information Technology)	E

(With effect from the academic year 2024-25)

MSc (Sem I to IV) in Biotechnology

Sr. No.	Old syllabus (2016-17 onwards) CBSGS	Remarks	New syllabus (2019-20 onwards) CBCS
	Sem I	No equivalence	Sem I
1	PSBT 101 Biochemistry		PSBT 101 Biochemistry
2	PSBT 102 Immunology		PSBT 102 Immunology
3	PSBT 103 Molecular Biology-		PSBT 103 Cell Biology
4	PSBT 104 Biochemical and Biophysical techniques		PSBT 104 Emerging technologies and Molecular diagnostics
	Sem II		Sem II
5	PSBT 201 Metabolism	No equivalence	PSBT 201 Bioinformatics and Biostatistics
6	PSBT 202 Immunology		PSBT 202 Plant and Animal Biotechnology
7	PSBT 203 Bioprocess technology		PSBT 203 Bioprocess Engineering and technology
8	PSBT 204 IPR & Biosafety		PSBT 204 Intellectual property rights and Bioethics
	Sem III		Sem III
9	PSBTP301 PTC and ATC	No equivalence	PSBT 301 Applied virology and microbiology
10	PSBTP302 Medical microbiology		PSBT 302 Environmental Biotechnology
11	PSBTP303 Clinical Studies		PSBT 303 Biologics and Regulatory Affairs
12	PSBTP304 Developmental Biology		PSBT 304 Molecular Enzymology and Enzyme Technology

	Sem IV		Sem IV
13	PSBT 401 Nanobiotechnology	No equivalence	PSBT 401 Nanobiotechnology
14	PSBTP402 GMO and environment		PSBT 402 OMICS & Systems Biology
15	PSBTP403 Bioinformatics		PSBT 403 Drug Discovery & Clinical Study
16	PSBTP404 Biostatistics		PSBT 404 Scientific Writing & Food Biotechnology

**UNIVERSITY OF MUMBAI
DEPARTMENT OF BIOPHYSICS**

LIST OF EQUIVALENT COURSES M.Sc. BIOPHYSICS

CBCS (wef 2016)		CBSGS (wef 2013)	
	Paper code		Paper code
Semester I Programme code: 1S01121		Semester I Programme code: 1S01111	
General physico-chemical Principles	94611	General physico-chemical Principles	73008
Biomathematics & Biostatistics	94637	Biomathematics & Biostatistics	73028
Cellular Biophysics	94663	Cell biophysics	73050
Methods in Biophysics	94689	Methods in Biophysics	73072
Semester II Programme code: 1S01122		Semester II Programme code: 1S01112	
Membrane Biophysics & Ion channels	92110	Membrane Biophysics	67286
Molecular Biophysics	92136	Molecular Biophysics	67210
Biochemistry	92160	Biochemistry	67234
Recombinant DNA Technology & Protein Engineering	92187	Molecular Biology & Protein Engineering	67260
Semester III Programme code: 1S01123		Semester III Programme code: 1S01113	
Physiological Biophysics	94821	Physiological Biophysics	26620
Bio crystallography & Magnetic Resonance Techniques	94854	Bio crystallography & Magnetic Resonance Techniques	26648
Radiation Biophysics	94927	Radiation Biophysics	26701
Advanced Biophysical Techniques	94978	Advanced Biophysical Techniques	26770

Semester IV Programme code: 1S01124		Semester IV Programme code: 1S01114	
Medical Biophysics	96217	Medical Biophysics	92319
Environmental Biophysics	92656	----	-----
Nanobiophysics and nanomedicine	92727	Nanomaterials in biology and medicine	92352
Elements of Bioinformatics, molecular modelling and drug design	92787	Elements of Bioinformatics & Chemoinformatics	92409
Elements of Bioinformatics, molecular modelling and drug design	92787	Molecular Modelling & Drug design	92480

Name of the Programme TYBSc Botany**List of Equivalent Courses (UG)**

	Old CBSGS Pattern	Pre-NEP CBCS Pattern	
Sem V		2018-19	2019-20
Paper Code &	10217	24205	24279
Paper Name	Plant Diversity III	Plant Diversity III	Plant Diversity III
Paper Code &	10290	24220	24282
Paper Name	Plant Diversity IV	Plant Diversity IV	Plant Diversity IV
Paper Code &	10296	24236	24280
Paper Name	Form and Function III	Form and Function III	Form and Function III
Paper Code &	10236	24267	24281
Paper Name	Current Trends in Plant Sciences II	Current Trends in Plant Sciences II	Current Trends in Plant Sciences II

	Old CBSGS Pattern	Pre-NEP CBCS Pattern	
Sem VI	2016-17	2018-19	2019-20
Paper Code &	10217	88606	88673
Paper Name	Plant Diversity III	Plant Diversity III	Plant Diversity III
Paper Code &	10290	88672	88676
Paper Name	Plant Diversity IV	Plant Diversity IV	Plant Diversity IV
Paper Code &	10296	88631	88674
Paper Name	Form and Function III	Form and Function III	Form and Function III
Paper Code &	10236	88658	88675
Paper Name	Current Trends in Plant Sciences II	Current Trends in Plant Sciences II	Current Trends in Plant Sciences II

Name of the Programme: M.Sc Botany

List of Equivalent Courses (PG)

	Old CBSGS Pattern	Pre-NEP CBCS Pattern
Sem I		
Paper Code &	73004	94605
Paper Name	Plant Diversity: Cryptogams I (Algae and Fungi)	Plant Diversity-Cryptogams I (Algae and Fungi)
Paper Code &	73024	94631
Paper Name	Plant Diversity – Spermatophyta I (Gymnosperms and Angiosperms)	Plant Diversity – Spermatophyta I (Gymnosperms and Angiosperms)
Paper Code &	73046	94657
Paper Name	Plant Physiology	Plant Physiology
Paper Code &	73068	94683
Paper Name	Cytogenetics, Molecular Biology and Biotechnology	Cytogenetics, Molecular Biology and Biotechnology
Sem II		
Paper Code &	67204	92104
Paper Name	Plant Diversity: Cryptogams II (Bryophyta and Pteridophyta)	Plant Diversity: Cryptogams II (Bryophyta and Pteridophyta)

Paper Code &	67229	92128
Paper Name	Plant Diversity: Spermatophyta II (Anatomy, Developmental Botany and Palynology)	Plant Diversity: Spermatophyta II (Anatomy, Developmental Botany and Palynology)
Paper Code &	67254	92154
Paper Name	Plant Physiology and Environmental Botany	Plant Physiology and Environmental Botany
Paper Code &	67280	92181
Paper Name	Medicinal Botany and Dietetics	Medicinal Botany and Dietetics

Sem III		
Common Papers		
Paper Code &	26610	94810
Paper Name	Techniques and Instrumentation	Techniques and Instrumentation
Paper Code &	26638	94843
Paper Name	Molecular Biology	Molecular Biology
Specialization: Molecular Biology, Cytogenetics & Plant Biotechnology (MBC)		
Paper Code &	26686	949202
Paper Name	Plant Biotechnology	Plant Biotechnology

Paper Code &	26755	94956
Paper Name	Molecular Biology and Cytogenetics	Molecular Biology and Cytogenetics
Specialization: Plant Physiology and Biochemistry (PPB)		
Paper Code &	26684	94900
Paper Name	Plant Biochemistry and Phytochemistry	Plant Biochemistry

Sem III		
Paper Code &	26753	94954
Paper Name	Plant Physiology	Plant Physiology
Specialization : Mycology and Plant Pathology (MPP)		
Paper Code &	26682	94898
Paper Name	General Mycology	General Mycology
Paper Code &	26751	94952
Paper Name	Applied Mycology & Plant Pathology	Applied Mycology & Plant Pathology

Specialization: Angiosperms and Phytochemistry (ANP)		
Paper Code &	26683	94899
Paper Name	Angiosperms I	Angiosperms and Phytochemistry I
Paper Code &	26752	94953
Paper Name	Angiosperms II	Angiosperms and Phytochemistry II

Sem III		
Specialization: Environmental Botany (EB)		
Paper Code &	26685	94901
Paper Name	Ecology	Ecology and Environmental Botany
Paper Code &	26754	94955
Paper Name	Recent Trends & Applied Environmental Botany	Recent Trends & Applied Environmental Botany

Sem IV		
Common Papers		
Paper Code &	92308	92607
Paper Name	Techniques and Instrumentation	Techniques and Instrumentation
Paper Code &	92341	92646
Paper Name	Molecular Biology	Molecular Biology
Specialization : Molecular Biology, Cytogenetics & Biotechnology (MCB)		
Paper Code &	92389	92711
Paper Name	Plant Biotechnology	Plant Biotechnology
Paper Code &	92460	92769
Paper Name	Molecular Biology and Cytogenetics	Molecular Biology and Cytogenetics
Specialization : Plant Physiology and Biochemistry (PPB)		
Paper Code &	92387	92709
Paper Name	Biochemistry and Phytochemistry	Plant Biochemistry
Sem IV		
Paper Code &	92459	92767
Paper Name	Plant Physiology	Plant Physiology

Mycology and Plant Pathology (MPP)		
Paper Code & Paper Name	92385	92708
	General Mycology	General Mycology
Paper Code & Paper Name	92456	92766
	Applied Mycology& Plant Pathology	Applied Mycology& Plant Pathology
Specialization : Angiosperms (ANP)		
Paper Code & Paper Name	92386	92710
	Angiosperms I	Angiosperms and Phytochemistry III
Paper Code & Paper Name	92459	92771
	Angiosperms II	Angiosperms and Phytochemistry IV
Sem IV		
Specialization: Environmental Botany (EB)		
Paper Code & Paper Name	92388	92712
	Ecology	Ecology And Environment Botany
Paper Code & Paper Name	92458	92773
	Recent Trends & Applied Environmental Botany	Recent Trends & Applied Environmental Botany

Appendix 'D'**AC – 04/12/2024****Item No. 6.11 (D)****Name of the Programme: M.Sc. (Physics)****List of Equivalent Courses (PG)**

	Old CBSGS Pattern	Pre-NEP CBCS Pattern	
Sem I	1S01111	1S01121	
		Old	Revised
Paper Code	73007	94622	94602
Paper Name	Mathematical Methods	Mathematical Methods	
Paper Code	73027	94648	94628
Paper Name	Classical Mechanics	Classical Mechanics	
Paper Code	73049	94671	94654
Paper Name	Quantum Mechanics I	Quantum Mechanics I	
Paper Code	73071	94698	94680
Paper Name	Solid State Devices	Solid State Devices	Solid State Physics

	Old CBSGS Pattern	Pre-NEP CBCS Pattern	
Sem II	1S01112	1S01122	
		Old	
Paper Code	67201	92205	92101
Paper Name	Advanced Electronics	Advanced Electronics	
Paper Code	67226	92209	92125
Paper Name	Electrodynamics	Electrodynamics	

Paper Code	67250	92213	92151
Paper Name	Quantum Mechanics II	Quantum Mechanics II	
Paper Code	67277	92216	92177
Paper Name	Solid State Physics	Solid State Physics	Solid State Devices

	Old CBSGS Pattern	Pre-NEP CBCS Pattern	
Sem III	1S01113	1S01123	
Paper Code	26604	94804	74704
Paper Name	Statistical Mechanics	Physics: Statistical Mechanic (2018-19)	
Paper Code	26632	94837	74738
Paper Name	Nuclear Physics	Physics: Nuclear Physics (R-2018-19)	
Paper Code	26670	94886	74788
Paper Name	Physics: 8,16-Bit Microprocessors, Microcontroller & Pic Microcontrollers	Physics: Micro. & Interfacing Microcontroller And Interfacing(R-2018-19)	
Paper Code	26740	94941	74846
Paper Name	Physics: Programming Using C++, Vc++, Embedded Systems & RTOS	Physics: Embedded Systems And RTOS (R-2018-19)	
Paper Code	26671	94887	74789
Paper Name	Physics: Signal Modulation & Transmission Techniques	Physics: Signal Modulation And Transmission Techniques (R-2018-19)	
Paper Code	26741	94942	74847
Paper Name	Microwave Electronics, Radar & Optical Fiber Communication	Physics: Microwave Electronics, Radar And Optical Fiber Communication (R-2018-19)	

	Old CBSGS Pattern	Pre-NEP CBCS Pattern
Sem IV	1S01114	1S01124
Paper Code	92301	92841
Paper Name	Physics : Paper I - Experimental Physics.	Physics : Experimental Physics (R-2019)
Paper Code	92334	92842
Paper Name	Physics :Paper II - Atomic & Molecular Physics.	Physics : Atomic & Molecular Physics (R-2019)
Paper Code	92377	92845
Paper Name	Physics : -32 BIT Microprocessors, Intel, 8 BIT Microcontrollers & Pic Microcontrollers.	Physics : Paper III – Advanced Microprocessor & ARM -7 (R-2019)
Paper Code	92443	92854
Paper Name	Physics : Paper IV - VHDL, USB & Communication Interface.	Physics : Paper IV: VHDL & Communication Interface (R-2019)
Paper Code	92378	92846
Paper Name	Physics : Paper III - Digital Communication System & Python Programming.	Physics : Paper III - Digital Communication Systems & Python Programming(R-2019)
Paper Code	92444	92855
Paper Name	Physics : Paper IV - Computer Networking.	Physics : Paper IV: Computer Networking (R-2019)

Name of the Programme
List of Equivalent Courses (UG)

	Old CBSGS Pattern	Pre-NEP CBCS Pattern
Sem V		
Paper Code &	USPH501	USPH501
Paper Name	Mathematical Methods in Physics Thermal and Statistical Physics	Mathematical Methods in Physics Thermal and Statistical Physics
Paper Code &	USPH502	USPH502
Paper Name	Solid State Physics	Solid State Physics
Paper Code &	USPH503	USPH503
Paper Name	Atomic Physics	Atomic Physics
Paper Code &	USPH504	USPH504
Paper Name	Electrodynamics	Electrodynamics
Paper Code &	USPHP05	USPHP05
Paper Name	Practicals of Course USPH501 + Course USPH502	Practicals of Course USPH501 + Course USPH502
Paper Code &	USPHP06	USPHP06
Paper Name	Practicals of Course USPH503 + Course USPH504	Practicals of Course USPH503 + Course USPH504

Paper Code & Paper Name	USACEI501	USACEI501
	Theory: Analog Circuits, Instruments and Consumer Appliances.	Theory: Analog Circuits, Instruments and Consumer Appliances.
Paper Code & Paper Name	USACEI5P1	USACEI5P1
	Practical's: Analog Circuits, Instruments and Consumer Appliances.	Practical's: Analog Circuits, Instruments and Consumer Appliances.
Paper Code & Paper Name	USACCS501	USACCS501
	Theory: Advanced Microprocessor, Microcontrollers & Python Programing	Theory: Advanced Microprocessor, Microcontrollers & Python Programing
Paper Code & Paper Name	USACCS5P1	USACCS5P1
	Practicals: Microprocessors, Microcontrollers , Python Programming	Practicals: Microprocessors, Microcontrollers , Python Programming
Sem VI		
Paper Code & Paper Name	USPH601	USPH601
	Classical Mechanics	Classical Mechanics
Paper Code & Paper Name	USPH602	USPH602
	Electronics	Electronics
Paper Code & Paper Name	USPH603	USPH603
	Nuclear Physics	Nuclear Physics

Paper Code &	USPH604	USPH604
Paper Name	Special Theory of Relativity	Special Theory of Relativity
Paper Code &	USPH605	USPH605
Paper Name	Practicals of Course USPH601 + Course USPH602	Practicals of Course USPH601 + Course USPH602
Paper Code &	USPH606	USPH606
Paper Name	Practicals of Course USPH603 + Course USPH604	Practicals of Course USPH603 + Course USPH604
Paper Code &	USACEI601	USACEI601
Paper Name	Theory: Digital Electronics, Microprocessor, Microcontroller and OOP	Theory: Digital Electronics, Microprocessor, Microcontroller and OOP
Paper Code &	USACEI6P1	USACEI6P1
Paper Name	Practicals: Digital Electronics, Microprocessor, Microcontroller and OOP	Practicals: Digital Electronics, Microprocessor, Microcontroller and OOP
Paper Code &	USACCS601	USACCS601
Paper Name	Theory: Microcontroller , Python Programming	Theory: Microcontroller , Python Programming
Paper Code &	USACC6P1	USACC6P1
Paper Name	Practicals: Microcontroller , Python Programming	Practicals: Microcontroller , Python Programming

Appendix ‘E’**AC- 04/12/2024****Item No. – 6.11 (E)****Name of the Programme: B.Sc. (Information Technology)****List of Equivalent Courses (UG)**

	Old (Choice Based) System	Pre-NEP CBCS Pattern
Sem V		
Paper Code &	53701	71311
Paper Name	Software Project Management	Software Project Development
Paper Code &	53702	71312
Paper Name	Internet of Things	Internet of Things: Theory & Practice
Paper Code &	53703	71313
Paper Name	Advanced Web Programming	Advanced Web Development
Paper Code &	53704	71314
Paper Name	Artificial Intelligence	Artificial Intelligence & Applications
Paper Code &	53705	71315
Paper Name	Linux System Administration	Linux Server Administration

Paper Code &	53706	71316
Paper Name	Enterprise Java	Advanced Java Technologies
Paper Code &	53707	71317
Paper Name	Next Generation Technologies	Emerging Technologies

Sem VI		
Paper Code &	88701	
Paper Name	Software Quality Assurance	Software Testing and Quality Assurance
Paper Code &	88702	
Paper Name	Security in Computing	Information Security
Paper Code &	88703	
Paper Name	Business Intellitgence	Information Security
Paper Code &	88704	
Paper Name	Principles of Geographic Information Systems	Fundamentals of GIS

Paper Code &	88705	
Paper Name	Enterprise Networking	Enterprise Network Design
Paper Code &	88706	
Paper Name	I. T. Service Management	IT Infrastructure Management
Paper Code &	88707	
Paper Name	Cyber Laws	IT Act and Cyber Laws