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INDIAN INSTITUTE OF TECHNOLOGY KANPUR
UNDERGRADUATE OFFICE

Chairperson, SUGC

No.A(U)/2023-24/New&Old_UGARC
May 16, 2024

The Chairman, Senate
IIT Kanpur

Subject: ***To consider the course equivalent/mapping details submitted by the departments as per Old UGARC and New UGARC.***

Dear Sir,

This is apprised that due to implementation of the New UGARC from AY 2022-23, many departments discontinued some of their Department Compulsory courses offered/required for Old UGARC students as per the template or changed course title/credits etc. as per the guidelines of the New UGARC. In this connection, a comprehensive list of course equivalent/mapping has been prepared with the help of respective departments to help to complete graduation requirement of the Old UGARC students.

Further, the details of course equivalent/mapping provided by the respective departments were discussed in several meetings of the SUGC. Finally, in 2023-24/7th & 8th meeting of the SUGC held on March 06, 2024, and April 16, 2024, respectively, after due deliberations, the committee proposed and recommends the following points along with the course equivalent/mapping details submitted by the departments to the Senate for further consideration:

- If an old UGARC student does less credits under mapping of all such courses s/he has to make up with OE/DE/optional ESO credits to reach minimum graduation requirements.
- If an old UGARC student does more credits under mapping s/he will not get any advantage of these excess credits in terms of reducing credits elsewhere. It means student still needs to do required OE/DE credits even if the total credits exceed the minimum graduation requirement.
- If an old UGARC student has a backlog in Technical Communications course, s/he can make up for it by doing an Ethics course (ETH111). This amounts to 1 extra credit but no advantage will be given in any other course requirements.
- It seems some departments have provided only partial mapping, which may indicate that there are no back loggers of old UGARC in the courses for which the mapping is not provided or it indicates that the dept. will offer both (Old & New UGARC) courses till it is needed. The committee assumes the latter in all such cases in case the dept. does not provide a mapping.

Details from the following departments have been received:

S. No.	Name of the Dept.	Appendix
1.	Aerospace Engineering	1-2
2.	Biological Sciences and Bioengineering	3
3.	Chemical Engineering	4
4.	Civil Engineering	5-8
5.	Computer Science & Engineering	9-11
6.	Electrical Engineering	12
7.	Mechanical Engineering	13-14
8.	Materials Science & Engineering	15-16

9.	Economics	17
10.	Earth Sciences	18
11.	Chemistry	19-20
12.	Mathematics & Statistics	21-25
13.	Physics	26
14.	Humanities and Social Sciences	27

Therefore, the course equivalent/mapping details submitted by the departments (as per Old UGARC and New UGARC) is placed for consideration and kind approval. The decision will be reported to the Senate for ex-post-facto ratification in its next meeting.

With kind regards,

Yours Sincerely,

16/05/2024

(Anjan K. Gupta)

Encls: As mentioned in the table.

Aerospace Engineering Department (AE)

Program	Course(s) as per Old UGARC			Courses as per New UGARC			Remark if Any
	Code	Credits	Title	Code	Credits	Title	
B.Tech.	AE201A	5	Introduction to Aerospace Engineering	AE201M	5	Introduction to Aerospace Engineering	
	AE211A	11	Incompressible Aerodynamics	AE211	9	Incompressible Aerodynamics	
	AE251A	8	Experiments in Aerospace Engineering – I	-	-	This course will be offered as it is for old UGARC students with backlogs.	
	AE311A	9	Compressible Aerodynamics	AE311	9	Compressible Aerodynamics	
	AE321A	9	Flight Mechanics - I	AE321	9	Flight Mechanics	
	AE331A	9	Introduction to Aerospace Structures	AE333	9	Aerospace Structures – I	
	AE341A	11	Airbreathing Propulsion	AE341	11	Aerospace Propulsion	
	AE351A	5	Experiments in Aerospace Engineering – II	-	-	This course will be offered as it is for old UGARC students with backlogs.	
	AE361A	3	Aeromodel Design & Fabrication	AE463	3	Aeromodel Design & Fabrication	
	AE322A	9	Aircraft Control Systems	AE322	9	Aircraft Control Systems	
	AE441A	5	Rocket Propulsion	-	-	This course will be offered as it is for old UGARC students with backlogs.	
	AE451A	5	Experiments in Aerospace Engineering – III	-	-	This course will be offered as it is for old UGARC students with backlogs.	
	AE461A	7	Aircraft Design – I	AE461	7	Aircraft Design – I	
	AE401A	2	Technical Communication	ETH111	3	Practical Ethics	
	AE462A	4	Aircraft Design – II	AE462	4	Aircraft Design – II	
	AE421A	3	Experiments in Flight Mechanics	AE421M	3	Experiments in Flight Mechanics	
	AE471A	9	Undergraduate Project-2	-	-	This course will be offered as it is for old UGARC students with backlogs.	
	ESO209	8	Dynamics	AE209	8	Dynamics	
Dual Degree	AE601A	9	Intro To Aerospace Engg	AE601	9	Introduction to Aerospace Engg	

Double Major	AE231A	6	Element of Vibration	AE233M	5	Introduction to Vibrations	
Minor	AE650A	9	Fundamental Of Aerospace Propulsion - I	AE341	11	Aerospace Propulsion	
	AE753A	9	Theory Of Combustion	AE663	9	Fundamentals of Combustion	

Biological sciences and Bioengineering (BSBE)

Program	Course(s) as per Old UGARC			Courses as per New UGARC			Remark if Any
	Code	Credits	Title	Code	Credits	Title	
B.Tech.	BSE211A	9	Organ System, Physiology and Anatomy	BSE211	9	Organ System, Physiology and Anatomy	
	BSE221A	9	Biochemistry	BSE221	9	Biochemistry	
	BSE222A	9	Biochemical Engineering	BSE222	9	Biochemical Engineering	
	BSE223A	9	Biochemistry & Biochemical Engineering Lab	BSE223	9	Biochemistry & Biochemical Engineering Lab	
	BSE311A	9	Molecular Cell Biology	BSE311	9	Molecular Cell Biology	
	BSE312A	9	Molecular Biology Lab	BSE312	9	Molecular Biology Lab	
	BSE301A	2	Scientific and Professional Communication	ETH111	3	Practical Ethics	
	BSE321A	10	Structural Biology	BSE321	9	Structural Biology	
	BSE322A	10	Bioinformatics & Computational Biology	BSE322	9	Bioinformatics & Computational Biology	
	BSE411A	11	Biomaterials	BSE411	9	Biomaterials	
	BSE412A	9	Biomaterials, Physiology & Biomems Laboratory	BSE412	9	Biomaterials, Physiology & Biomems Laboratory	
	BSE421A	11	Tissue Engineering	BSE421	9	Tissue Engineering	
Dual Degree	BSE613A	9	Biomaterials	BSE613	9	Biomaterials	
	BSE611A	9	Modern Instrumental Methods in Biological Sciences	BSE611	9	Modern Instrumental Methods in Biological Sciences	
	BSE632A	9	Structural Basic of Protein Function	-	-	-	
	BSE633A	9	Bioinformatics And Computational Biology	BSE633	9	Bioinformatics And Computational Biology	
Double Major	-	-	-	-	-	-	
Minor	-	-	-	-	-	-	

Chemical Engineering (CHE)

Program	Course(s) as per Old UGARC			Courses as per New UGARC			Remark if Any
	Code	Credits	Title	Code	Credits	Title	
B.Tech.	CHE251A	9	Introduction to ChE and Process Calculation	CHE251	12	Chemical Process Calculations	
	CHE211A	9	Fluid Mechanics and its application	ESO204	11	Fluid Mechanics and Rate Processes	
	CHE221A	9	Chemical Engineering Thermodynamics	CHE221	12	Chemical Engineering Thermodynamics	
	CHE261A	6	Chemical Process Industries	CHE261	9	Chemical Process Technology	
	CHE312A	9	Heat Transfer and its Applications	CHE212	12	Heat Transfer	
	CHE313A	9	Mass Transfer and its Applications	CHE213	12	Mass Transfer and Separation Processes	
	CHE352A	5	Chemical Process Simulation Lab	-	-	This course will be offered as it is for old UGARC students with backlogs.	
	CHE300A	2	Comm. Skills	CHE200	2	Communication Skills	
	CHE331A	9	Chemical Reaction Engineering	CHE331	12	Chemical Reaction Engineering	
	CHE381A	11	Process Control	CHE381	12	Process Dynamics and Control	
	CHE391A	8	Unit Operation Laboratory - I	-	-	This course will be offered as it is for old UGARC students with backlogs.	
	CHE453A	11	Chemical Engineering Design	CHE352	12	Chemical Process Synthesis and Design	
	CHE492A	8	Unit Operations and Process Control Laboratory	-	-	This course will be offered as it is for old UGARC students with backlogs.	
Dual Degree	CHE621A	9	Thermodynamics	-	-	This course will be offered, without suffix A.	
	CHE641A	9	Mathematical Methods In Chemical Engineering	-	-	This course will be offered, without suffix A.	
	CHE611A	9	Transport Phenomena	-	-	This course will be offered, without suffix A.	
	CHE631A	9	Chemical Reaction Engineering	-	-	This course will be offered, without suffix A.	
	CHE633A	9	Principles Of Heterogeneous Catalysis	-	-	This course will be offered, without suffix A.	
Double Major	-	-	-	-	-	-	-
Minor	-	-	-	-	-	-	-

Civil Engineering (CE)

Program	Course(s) as per Old UGARC			Courses as per New UGARC			Remark if Any
	Code	Credits	Title	Code	Credits	Title	
B.Tech.	CE241A	9	Sustainable Built Environment	CE212	9	Environment and Sustainability	Course Content Revised
	CE242A	11	Civil Engineering Materials	CE243	8	Civil Engineering Materials	Course content revised
	CE262A	8	Engineering Hydraulics	CE261	11	Fluid Mechanics for Civil Engineers (DC)	Course content and credits changed (odd semester)
				CE362	8	Engineering Hydraulics (DE)	Even semester
	CE272A	9	Structural Analysis	CE272	9	Structural Analysis	A dropped from number
	CE311A	12	Environmental Quality and Pollution	CE214	9	Environmental Quality and Processes Theory	Course Content Revised
				CE311	4	Environmental Quality and Processes Practical	No Change
	CE331A	11	Geoinformatics	CE331	8	The course 331A of old UGRC has been split into two compulsory courses in new UGRC: CE331-Principle of Geoinformatics 2-0-2-0-8 and CE334-Modern Methods in Geoinformatics 2-0-2-0-8 The course CE332-Survey Camp will be as in old UGRC 2-0-4-0-4 and remain optional.	Content of both CE331 and CE334 have been revised. The old course CE331A maps to new CE331 plus CE332 (which
				CE334	8		
				CE332	4		

							is Survey camp). Those with backlog in CE331A will have to complete both CE331 and CE332.
	CE351A	8	Soil Mechanics	CE 252	11	Soil Mechanics	
	CE361A	6	Engineering Hydrology	CE361	6	Engineering Hydrology	Only the course number is changed
	CE371A	6	Design of Steel Structures	CE372	9	Design of Steel Structures	Course content revised and to be offered in even semester
	CE341A	2	Civil Engineering Communication Skills	CE341	2	Civil Engineering Communication Skills	Course number changed
	CE352A	7	Foundation Design	CE351	10	Foundation Design	Course number changed
	CE372A	6	Reinforced Cement and Concrete Design	CE371	9	Reinforced Cement and Concrete Design	Course content revised and to be offered in odd semester
	CE382A	9	Transportation Engineering	CE381	9	Transportation Engineering	Minor revision in course content and to be offered

							in odd semester
	CE441B	5	Construction Management	CE441M	5	Construction Management	No Change
	CE412A	11	Water Supply and Wastewater Disposal Systems	CE412	11	Design of Water Supply and Wastewater Disposal Systems	No Change
	CE451A	11	Application of Geotechnical Engineering	CE451	9	Application of Geotechnical Engineering	Course credits changed
	CE462A	11	Hydraulic and Hydrologic Design	CE462	9	Hydraulic and Hydrologic Design	Course credits changed
	CE471A	11	Special Topics in Structural Design				No equivalent course
	CE481A	11	Transportation Facilities Design	CE481	11	Transportation Facilities Design	Only course number changed
	CE432A	11	Geographical Information System	CE432	11	Geographical Information System	No Change
Dual Degree	CE664A	9	Physico-Chemical Principles and Process	CE664	9	Physicochemical Principles and Processes	No Change
	CE665A	9	Ecological And Biological Principles and Process	CE665	9	Ecological and Biological Principles and Processes	No Change
	CE666A	9	Air Pollution and Its Control	CE666	9	Air Pollution and Its Control	No Change
	CE667A	5	Principles Of Environmental Management	--	--	--	Any course with the consent of thesis Supervisor
	CE668A	10	Environmental Quality & Pollution Monitoring Techniques	CE668	10	Environmental Quality and Pollution Monitoring Techniques	No Change
	CE671A	9 11	Introduction to Remote Sensing	CE671	11	Introduction to Remote Sensing	
	CE677A	9	Geospatial Data Processing			Course does not exist/removed	
	CE610A	9	Advanced Hydrology	CE610	9	Advanced Hydrology	Only course number changed
	CE611A	9	Advanced Hydraulics	CE611	9	Advanced Hydraulics	Only course number changed

	CE612A	9	Fluid Mechanics Laboratory	CE612	9	Fluid Mechanics laboratory	Only course number changed
	CE613A	9	Computer Methods in Hydraulics and Hydrology	CE613	9	Computer Methods in Hydraulics and Hydrology	Only course number changed
	CE682A	9	Analysis Of Pavement Structures			CE682A and CE689A have been modified to CE786, CE785M, and CE783M. However, they are not required for dual degree students. May be removed.	
	CE683A	9	Traffic Engineering			Overlap with CE381. So dual degree students not allowed. Can be removed	
	CE689A	9	Characterization Of Pavement Materials and Analysis of Pavements			CE682A and CE689A have been modified to CE786, CE785M, and CE783M. However, they are not required for dual degree students. May be removed.	
	CE688A	9	Airport Systems Planning and Design			Not offered by TE group anymore. Can be removed	
	CE690A	9	Laboratory Course in Transportation Engineering	CE780		Laboratory Course in Transportation Engineering	Only course number changed

Computer Science & Engineering (CSE)

Program	Course(s) as per Old UGARC			Courses as per New UGARC			Remark if Any
	Code	Credits	Title	Code	Credits	Title	
B.Tech.	CS201A	9	Mathematics For Computer Science -I	CS201	11	Mathematics for Computer Science - I	
	CS202A	5	Mathematics For Computer Science -II	CS202M	5	Mathematics for Computer Science - II	
	CS203B	5	Mathematics For Computer Science -II	CS203M	5	Mathematics for Computer Science - III	
	CS220A	12	Computer Organization	CS220	13	Computer Organization	
	CS253A	12	Software Development and Operations	CS253	12	Software Development and Operations	
	CS300A	2	Technical Communication	ETH111	3	Practical Ethics	
	CS330A	12	Operating Systems	CS330	13	Operating Systems	
	CS340A	9	Theory Of Computation	CS340	9	Theory of Computation	
	CS345A	9	Algorithms II	CS345	9	Algorithms II	
	CS335A	13	Compiler Design	CS335	9	Compiler Design	
	ESO207A	12	Data Structure & Algorithm	ESO207	12	Data Structure & Algorithm	
	CS315A	9	Principles Of Data Base Systems	CS315	9	Principles Of Data Base Systems	
	CS350A	9	Principles Of Programming Langauges	CS350	9	Principles Of Programming Langauges	
	CS360A	9	Introduction To Computer Graphics	CS360	9	Introduction To Computer Graphics	
	CS771A	9	Introduction To Machine Learning	CS771	9	Introduction To Machine Learning	
	CS422A	9	Computer Architecture	CS422	9	Computer Architecture	
	CS425A	9	Computer Networks	CS425	9	Computer Networks	
	CS433A	9	Parallel Programming	CS433	9	Parallel Programming	
	CS455A	9	Introduction To Software Engineering	CS455	9	Introduction To Software Engineering	
	CS423A	9	Multi Core and Multiprocessor Architecture	CS423	9	Multi Core and Multiprocessor Architecture	
	CS395A	4	Undergraduate Project -1(UGP-1)	CS496		Undergraduate Project -1(UGP-1)	
	CS396A	9	Undergraduate Project-2 (UGP-2)	CS497		Undergraduate Project-2 (UGP-2)	
	CS397A	-	-	-	-	-	
	CS499A	9	Undergraduate Project-4 (UGP-4)	CS499	9	Undergraduate Project-4 (UGP-4)	
	CS498A	9	Undergraduate Project-3 (UGP-3)	CS498	9	Undergraduate Project-3 (UGP-3)	

	CS497A	9	Special Topics in Computer Science	-	-	-	
Dual Degree	-	-	-	-	-	-	-
Double Major	-	-	-	-	-	-	-
Minor	CS771A	9	Introduction To Machine Learning	-	-	-	All minor courses are mapped to courses with same number (without the 'A' suffix) in the new UGARC
	CS645A	9	Topics In Design and Analysis of Algorithms	-	-	-	
	CS646A	9	Parallel Algorithms	-	-	-	
	CS647A	9	Advanced Topics in Algorithms & Data Structures	-	-	-	
	CS648A	9	Randomized Algorithm	-	-	-	
	CS663A	9	Computational Geometry	-	-	-	
	CS664A	9	IOT System Design	-	-	-	
	CS719A	9	Data Streaming: Algorithms & Systems	-	-	-	
	CS743A	9	Advanced Graph Algorithms	-	-	-	
	CS315A	9	Principles Of Data Base Systems	-	-	-	
	CS422A	9	Computer Architecture	-	-	-	
	CS433A	9	Parallel Programming	-	-	-	
	CS455A	9	Introduction To Software Engineering	-	-	-	
	CS640A	9	Computational Complexity	-	-	-	
	CS641A	9	Modern Cryptology	-	-	-	
	CS642A	9	Circuit Complexity Theory	-	-	-	
	CS643A	9	-	-	-	-	
	CS644A	9	Finite Automata on Infinite Inputs	-	-	-	
	CS649A	9	-	-	-	-	
	CS680A	9	Category Theory and Applications in Computing	-	-	-	
	CS681A	9	Computational Number Theory and Algebra	-	-	-	
	CS687A	9	Algorithmic Information Theory	-	-	-	
	CS740A	9	-	-	-	-	
	CS741A	9	-	-	-	-	
	CS742A	9	-	-	-	-	

	CS671A	9	Introduction To Natural Language Processing	-	-	-	
	CS672A	9	-	-	-	-	
	CS674A	9	Post Quantum Security	-	-	-	
	CS675A	9	Designing Verifiably Secure Systems	-	-	-	
	CS676A	9	Computer Vision and Image Processing	-	-	-	
	CS685A	9	Data Mining	-	-	-	
	CS686A	9	Data-Driven Program Analysis	-	-	-	
	CS782A	9	-	-	-	-	
	CS365A	9	Artificial Intelligence Programming	CS365	9	Artificial Intelligence Programming	
	CS678A	9	Learning With Kernels	-	-	-	
	CS698I	9	Relational Structures in Games	-	-	-	
	CS698N	9	Recent Advances in Computer Vision	-	-	-	
	CS698S	9	Bayesian Machine Learning	-	-	-	
	CS772A	9	Probabilistic Machine Learning	-	-	-	
	CS773A	9	Online Learning and Optimization	-	-	-	
	CS774A	9	Optimization Techniques	-	-	-	

Electrical Engineering (EE)

Program	Course(s) as per Old UGARC			Courses as per New UGARC			Remark if Any
	Code	Credits	Title	Code	Credits	Title	
B.Tech.	EE200A	11	Signal Systems and Networks	EE200	11	Signal systems & Networks	
	EE210A	11	Microelectronics I	EE210	11	Analogue electronics	
	EE250A	11	Control Systems Analysis	EE250	11	Control system analysis	
	EE320A	11	Principles Of Communication	EE320	11	Principles of communication	
	EE330A	11	Power Systems	EE330	11	Power systems	
	EE370A	11	Digital Electronics	EE370	11	Digital Electronics	
	EE380A	12	Electrical Engineering Laboratory I	EE380	12	Electrical engineering Laboratory-I	
	EE390A	2	Electrical Engineering Communication Skills	EE390	2	Electrical engineering communication Skills	
	EE340A	11	Electromagnetic Theory	EE340	11	Electromagnetic theory	
	EE381A	12	Electrical Engineering Laboratory II	EE381	12	Electrical engineering Laboratory-II	
	EE311A	9	Microelectronics II	EE311	9	Semiconductor Devices	
	EE321A	9	Communication Systems	EE321	9	Communication systems	
	EE360A	9	Power Electronics	EE360	9	Power electronics	
	EE301A	9	Digital Signal Processing	EE301	9	Digital signal Processing	
Dual Degree	-	-	-	-	-	-	
Double Major	EE480A	10	Electrical Engineering Lab I	-	-	-	
	EE381	12	Electrical Engineering Lab II	-	-	-	
	EE481	6	Electrical Engineering Lab II	-	-	-	
Minor	EE650A	9	Basics Of Modern Control Systems	-	-	-	
	EE612A	9	Fiber Optic Systems I	-	-	-	
	EE642A	9	Antennas Analysis & Synthesis	-	-	-	
	EE648A	9	Microwave Circuits	-	-	-	

Mechanical Engineering (ME)

Program	Course(s) as per Old UGARC			Courses as per New UGARC			Remark if Any
	Code	Credits	Title	Code	Credits	Title	
B.Tech.	ME251A	6	Engineering Design and Graphics	-	-	-	
	ME222A	7	Nature and Properties of Materials	ME222	6		
	ME231A	10	Fluid Mechanics	-	-	This course will be offered as it is for old UGARC students with backlogs.	
	ME301A	6	Energy Systems I	-	-	-	
	ME321A	7	Advanced Mechanics of Solids	ME321	9	Introduction to Elasticity	
	ME352A	7	Theory of Mechanisms and Machines	ME252	9	Theory Of Mechanisms and Machines	
	ME361A	10	Manufacturing Science and Technology	ME261+ ME361	7+7	Primary Manufacturing Processes + Secondary Manufacturing Processes	
	ME399A	2	Mechanical Engineering Communication Skills	ETH111	3	Practical Ethics	
	ME341A	10	Heat and Mass Transfer	-	-	This course will be offered as it is for old UGARC students with backlogs.	
	ME351A	8	Design of Machine Elements	-	-	This course will be offered as it is for old UGARC students with backlogs.	
	ME354A	10	Vibration and Control	ME354	9	Vibration and Control	
	ME401A	10	Energy Systems II	-	-		
	ME451A	9	Undergraduate Project-2 (UGP – 2)	ME496	9	Undergraduate Project-I (UGP – I)	
	ME461A	9	Manufacturing Systems	ME371	9	Manufacturing Systems	
	ME452A	6	Undergraduate Project-3 (UGP – 3)	ME497 / ME498	6 / 9	Undergraduate Project-III / Undergraduate Project-IV	
	ESO209A	8	Dynamics	ME209	9	Dynamics	
Dual Degree	ME621A	9	Introduction To Solid Mechanics	-	-	-	
	ME625A	9	Applied Dynamics and Vibrations	-	-	-	
	ME681A	9	Mathematics For Engineers	-	-	-	
	ME631A	9	Viscous Flow Theory	-	-	-	

	ME641A	9	Conduction And Radiation	-	-	-	
	ME642A	9	Convective Heat and Mass Transfer	-	-	-	
	ME681A	9	Mathematics For Engineers	-	-	-	
	ME661A	9	Machining Science I	-	-	-	
	ME662A	9	Machining Science II	-	-	-	
	ME663A	9	Metal Forming	-	-	-	
Double Major	-	-	-	-	-	-	-
Minor	ME664A	9	Fundamentals Of Casting & Solidification	-	-	-	
	ME665A	9	Micromachining	-	-	-	
	ME774A	9	Biomems And Microsystems Technology	-	-	-	
	ME751A	9	Computer Aided Engineering Design	-	-	-	
	ME761A	9	Computer Aided Manufacturing	-	-	-	
	ME623A	9	Finite Element Methods in Engineering Mechanics	-	-	-	
	ME630A	9	Computational Fluid Dynamics and Heat Transfer	-	-	-	
	ME685A	9	Applied Numerical Methods	-	-	-	
	ME751A	9	Computer Aided Engineering Design	-	-	-	

Note: Old UGARC had ME301A[6], Energy Systems I, New UGARC has ME301[9]. Note that Old UGARC also had ME401A[10], Energy Systems II, which has been revised to ME302[9]. Equivalence must be considered for both courses together, or for just one course from each set.

I. Suppose the student needs both ME301A and ME401A. The New pair [18] may be taken in place of the Old pair [16] without getting a 2 credit relaxation in other courses.

II. Suppose the student needs just ME301A and has passed or got a waiver otherwise for ME401A (could be from a semester abroad, say). The New ME301[9] may individually be taken in place of the Old ME301A[6] without getting a 3 credit relaxation in other courses.

III. Suppose the student has passed ME301A and needs ME401A. Taking the old ME301A[6] and the New ME302[9] totals 15 credits and has a 1 credit shortfall. The department will request the institute to allow it, but it will add 1 credit to the existing DE or OE total requirements. That is, the student's graduation depends on taking 1 extra credit in either DE or OE over and above the normally required total.

Materials Science & Engineering (MSE)

Program	Course(s) as per Old UGARC			Courses as per New UGARC			Remark if Any
	Code	Credits	Title	Code	Credits	Title	
B.Tech.	MSE201A	11	Thermodynamics and Phase Equilibria	MSE201	11	Thermodynamics and Phase Equilibria	
	MSE202A	11	Rate Processes	MSE202	11	Rate Processes	
	MSE203A	9	Structure and Characterization of Materials	MSE203	11	Structure and Characterization of Materials	
	MSE204A	6	Introduction of Biomaterials	-	-	This course will be offered as it is for old UGARC students with backlogs.	
	MSE301A	6	Phase transformation	MSE301	9	Phase transformation	
	MSE302A	9	Mechanical Behavior of Materials	MSE302	9	Mechanical Behavior of Materials	
	MSE303A	9	Electronic and Magnetic Properties of Materials	MSE303	9	Electronic and Magnetic Properties of Materials	
	MSE311A	3	Physical Metallurgy Laboratory	MSE251	3	Physical Metallurgy Laboratory	
	MSE313A	3	Mechanical Behavior Laboratory	-	-	This course will be offered as it is for old UGARC students with backlogs.	
	MSE300A	2	Communications	-	-	This course will be offered as it is for old UGARC students with backlogs.	
	MSE304A	6	Metal Extraction and Refining	MSE304	9	Metal Extraction and Refining	
	MSE305A	6	Materials Processing	MSE305	9	Materials Processing	
	MSE312A	3	Functional Materials Laboratory	-	-	This course will be offered as it is for old UGARC students with backlogs.	
	MSE314A	3	Process Engineering Laboratory	-	-	This course will be offered as it is for old UGARC students with backlogs.	
	MSE315A	3	Manufacturing Processes Laboratory	-	-	This course will be offered as it is for old UGARC students with backlogs.	

Dual Degree	-	-	-	-	-	-	
Double Major	-	-	-	-	-	-	
Minor	MSE604A	9	Science And Technology of Thin Films and Device Fabrication	MSE604	9	Science And Technology of Thin Films and Device Fabrication	
	MSE624A	9	Energy Materials and Technologies	MSE624	9	Energy Materials and Technologies	
	MSE628A	9	Electronic Devices and Characterization	MSE628	9	Electronic Devices and Characterization	
	MSE631A	9	Electroceramic Materials and Applications	MSE631	9	Electroceramic Materials and Applications	
	MSE693A	9	Materials Science Technologies for Applications In Life Sciences	MSE693	9	Materials Science Technologies for Applications In Life Sciences	

Economics (ECO)

Program	Course(s) as per Old UGARC			Courses as per New UGARC			Remark if Any
	Code	Credits	Title	Code	Credits	Title	
B.S.	ECO201A	9	Microeconomics I	ECO211	11	Microeconomics I	
	ECO221A	9	Macroeconomics I	ECO231	11	Macroeconomics I	
	ECO261A	9	Introduction to Mathematical Economics	ECO271	11	Optimization	
	ECO301A	9	Microeconomics II	ECO311	11	Microeconomics II	
	ECO341A	12	Econometrics I	ECO251	11	Econometrics I	
	ECO397A	2	Technical Communication	-	-	-	
	ECO311A	9	Development Economics	-	-	-	
	ECO342A	12	Econometrics II	ECO351	11	Econometrics II	
	ECO321A	9	Macroeconomics II	ECO331	11	Macroeconomics II	
	ECO411A	9	Industrial Economics	-	-	-	
	ECO412A	9	International Economics and Finance	-	-	-	
	ECO413A	9	Indian Economic Problems	-	-	-	
Dual Degree	-	-	-	-	-	-	
Double Major	ECO101A	11	Introduction To Economics	-	-	-	
	ECO416A	11		-	-	-	
Minor	-	-	-	-	-	-	

Earth Sciences (ES)

Program	Course(s) as per Old UGARC			Courses as per New UGARC			Remark if Any
	Code	Credits	Title	Code	Credits	Title	
B.S.	ES311A	11	Mineralogy and Crystallography	ES201	11	Crystallography & Mineralogy	
	ES312A	3	Field Geology I	ES207	4	Field Geology I	
	ES313A*	9	Geomorphology and Earth Surface processes	ES203	6	Geomorphology	
	ES314A	9	Fundamentals of Geophysics	ES204	9	Fundamentals of Geophysics	
	ES315A	11	Igneous & Metamorphic Petrology	ES206	11	Igneous & Metamorphic Petrology	
	ES411A	9	Structural Geology	ES303	9	Structural Geology	
	ES412A*	8	Sedimentary Processes and Stratigraphic Principles	ES301	6	Fundamentals of Stratigraphy	
	ES400A	2	Communication Skills in Earth Sciences	ETH111	3	Practical Ethics	
	ES413A	6	Geochemistry	ES305	6	Geochemistry	
	ES414A	6	Field Geology II	ES306	6	Field Geology II	
	ES415A	8	Geological Remote Sensing and GIS	ES304	9	Fundamentals of Remote Sensing and GIS	
	ES416A	8	Exploration Geophysics	ES401	9	Exploration Geophysics	
	ES417A	6	Geological Evolution of Indian Plate	ES417	6	Geology of India-DE	
	ES418A	4	Field Geology III	ES402	4	Field Geology III	
	ES419A	6	Hydrological system	ES202	9	Physical Hydrology	
	ESO213A	9	Fundamentals of Earth Sciences Universe and its characteristics	ESO213	9	Fundamental of Earth Sciences	
	ES450A	9	Economic Geology	ES302	9	Ore Geology	
Dual Degree	-	-	-	-	-	-	-
Double Major	-	-	-	-	-	-	-
Minor	-	-	-	-	-	-	-

Note: * These courses will be floated simultaneously, and the instructor will provide extra lectures/term paper, etc. to make up for the credit deficit.

Chemistry (CHM)

Program	Course(s) as per Old UGARC			Courses as per New UGARC			Remark if Any
	Code	Credits	Title	Code	Credits	Title	
B.S.	CHM201A	9	Basic Organic Chemistry -I	CHM201	9	Basic Organic Chemistry-I	
	CHM202A	9	Basic Organic Chemistry -II	CHM202	9	Basic Organic Chemistry -II	
	CHM222A	9	Basic Physical Chemistry II	CHM222	9	Basic Physical Chemistry II	
	CHM242A	9	Basic Inorganic Chemistry II	CHM242	9	Basic Inorganic Chemistry II	
	CHM303A	9	Organic Chemistry I	CHM303	9	Organic Chemistry I	
	CHM305A	6	Organic Qualitative and Quantitative Analysis	CHM305	6	Organic Qualitative and Quantitative Analysis	
	CHM321A	9	Physical Chemistry I	CHM321	9	Physical Chemistry I	
	CHM345A	9	Inorganic Chemistry I	CHM345	9	Inorganic Chemistry I	
	CHM361A	2	Chemistry Communication Skills	CHM361	2	Chemistry Communication Skills	
	CHM322A	9	Physical Chemistry II	CHM322	9	Physical Chemistry II	
	CHM342A	9	Inorganic Chemistry II	CHM342	9	Inorganic Chemistry II	
	CHM344A	6	Inorganic Chemistry Laboratory Experiments	CHM344	6	Inorganic Chemistry Laboratory Experiments	
	CHM423A	6	Physical Chemistry Laboratory	CHM423	6	Physical Chemistry Laboratory	
Dual Degree	CHM611A	9	Physical Organic Chemistry	-	-	-	
	CHM621A	9	Chemical Binding	-	-	-	
	CHM664A	9	Modern Physical Methods in Chemistry	-	-	-	
Double Major	-	-	-	-	-	-	
Minor	CHM345A	9	Inorganic Chemistry I	-	-	-	
	CHM402A	9	Organic Chemistry II	-	-	-	
	CHM621A	9	Chemical Binding	-	-	-	
	CHM622A	9	Chemical Kinetics	-	-	-	
	CHM626A	9	Solid State Chemistry	-	-	-	
	CHM636A	9	Physical Photochemistry	-	-	-	
	CHM637A	9	Molecular Spectroscopy	-	-	-	
	CHM650A	9	Statistical Mechanics & Its Appl. To Chemistry	-	-	-	
	CHM664A	9	Modern Physical Methods in Chemistry	-	-	-	
	CHM685A	9	Molecule Radiation Interaction	-	-	-	

	CHM689A	9	Nuclear Magnetic Resonance Spectroscopy	-	-	-	
	CHM695A	9	Molecular Modelling in Chemistry	-	-	-	
	CHM696A	9	Quantum Computing	-	-	-	
	CHM699A	9	Lasers In Chemistry and Biology	-	-	-	
	CHM616A	9	Chemistry Of Organometallic Compounds	-	-	-	
	CHM631A	9	Applications Of Modern Instrumental Methods	-	-	-	
	CHM646A	9	Bio-Inorganic Chemistry	-	-	-	
	CHM647A	9	Macrocycles, Rings and Polymers	-	-	-	
	CHM651A	9	Crystal And Molecular Structure Determination	-	-	-	
	CHM654A	9	Supramolecular Chemistry	-	-	-	
	CHM668A	9	Advanced Main Group Chemistry	-	-	-	
	CHM691A	9	Frontiers In Inorganic Chemistry	-	-	-	
M.Sc.-2yr	CHM401A	9	Organic Chemistry I	-	-	-	
	CHM401A	9	Organic Chemistry I	-	-	-	
	CHM421A	9	Physical Chemistry I	CHM321A	9	Physical Chemistry I	
	CHM423A	6	Physical Chemistry Laboratory	-	-	-	
	CHM441A	9	Inorganic Chemistry I	CHM345A	9	Inorganic Chemistry I	
	CHM521A	9	Mathematics For Chemistry	-	-	-	
	CHM402A	9	Organic Chemistry II	-	-	-	
	CHM422A	9	Physical Chemistry II	CHM322A	9	Physical Chemistry II	
	CHM442A	9	Inorganic Chemistry II	CHM342A	9	Inorganic Chemistry II	
	CHM443A	6	Inorganic Chemistry Lab	-	-	-	
	CHM481A	9	Biosystems	-	-	-	
	CHM503A	6	Organic Preparation Lab	-	-	-	
	CHM611A	9	Physical Organic Chemistry	-	-	-	
	CHM621A	9	Chemical Binding	-	-	-	
	CHM664A	9	Modern Physical Methods in Chemistry	-	-	-	
	CHM700A	27	Project	-	-	-	

Mathematics and Scientific Computing (MTH)

Program	Course(s) as per Old UGARC			Courses as per New UGARC			Remark if Any
	Code	Credits	Title	Code	Credits	Title	
B.S.	MTH201A	11	Linear Algebra	MTH201	11	Linear Algebra	
	MTH302A	11	Set Theory and Mathematical Logic	MTH302	11	Set Theory and Mathematical Logic	
	MTH204A	11	Algebra I	MTH204	11	Abstract Algebra	
	MTH301A	11	Analysis I	MTH301	11	Analysis I	
	MTH305A	11	Several Variable Calculus & Differential Geometry	MTH305	11	Several Variable Calculus & Differential Geometry	
	MTH403A	11	Complex Analysis	MTH403	11	Complex Analysis	
	MTH399A	2	Communication Skills	ETH111	3	Practical Ethics	
	MTH308B	10	Numerical Analysis & Scientific Computing I	MTH308	10	Numerical Analysis & Scientific Computing I	
	MTH421A	11	Ordinary Differential Equations	MTH421	11	Ordinary Differential Equations	
	MTH424A	11	Partial Differential Equations	MTH424	11	Partial Differential Equations	
	MTH430A	10	Numerical Analysis & Scientific Computing II	MTH430	10	Numerical Analysis & Scientific Computing II	
Dual Degree	MTH697A	9	MS Project I	MTH697	9	MS Project I	
	MTH698A	9	MS Project II	MTH698	9	MS Project II	
	MTH699A	9	MS Project III	MTH699	9	MS Project III	
	MTH700A	9	MS Project IV	MTH700	9	MS Project IV	
Double Major	-	-	-	-	-	-	-
Minor	-	-	-	-	-	-	-
M.Sc-2YR (Mathematics) (Y21 or earlier*)	MTH201A	11	A FIRST COURSE IN LINEAR ALGEBRA	MTH201	11	A FIRST COURSE IN LINEAR ALGEBRA	
	MTH301A	11	ANALYSIS- I	MTH301	11	ANALYSIS- I	
	MTH202A	11	SET THEORY AND DISCRETE MATHEMATICS	MTH202	11	SET THEORY AND DISCRETE MATHEMATICS	
	MTH409A	9	COMPUTER PROGRAMMING AND DATA STRUCTURES	MTH409	9	COMPUTER PROGRAMMING AND DATA STRUCTURES	
	MTH428A	11	MATHEMATICAL METHODS	MTH428	11	MATHEMATICAL METHODS	Not a DC course in the new template. MTH428 the

							course shall be offered if any backlogs remain
	MTH204A	11	ABSTRACT ALGEBRA	MTH204	11	ABSTRACT ALGEBRA	
	MTH421A	11	ORDINARY DIFFERENTIAL EQUATIONS	MTH421	11	ORDINARY DIFFERENTIAL EQUATIONS	
	MTH308B	11	NUMERICAL ANALYSIS AND SCIENTIFIC COMPUTING-I	MTH308	11	NUMERICAL ANALYSIS AND SCIENTIFIC COMPUTING-I	
	MTH305A	11	SEVERAL VARIABLE CALCULUS & DEFFERENTIAL GEOMETRY	MTH305	11	SEVERAL VARIABLE CALCULUS & DEFFERENTIAL GEOMETRY	
	MTH403A	11	COMPLEX ANALYSIS	MTH403	11	COMPLEX ANALYSIS	
M.Sc-2YR (Statistics) (Y21 or earlier*)	MTH433A	11	REAL ANALYSIS	MTH433	11	REAL ANALYSIS	
	MTH409A	9	COMPUTER PROGRAMMING AND DATA STRUCTURES	MTH409	9	COMPUTER PROGRAMMING AND DATA STRUCTURES	Not a DC course in the new M.Sc (Statistics) template. However, MTH409 shall be offered as part of M.Sc (Mathematics) new template, and M.Sc (Statistics) students having a backlog can take this course
	MTH415A	11	MATRIX THEORY AND LINEAR ESTIMATION			No equivalent	MTH415Ashall be offered if any backlogs remain
	MTH431A	11	BASIC PROBABILITY & DISTRIBUTION THEORY	MSO205	11	Introduction To Probability Theory	

	MTH432A	6	INTRODUCTION TO SAMPLING THEORY	MTH432M	6	INTRODUCTION TO SAMPLING THEORY	
	MTH434A	6	COMPLEX ANALYSIS	MTH434M	6	COMPLEX ANALYSIS	
	MTH309A	11	PROBABILITY THEORY	MTH309	11	PROBABILITY THEORY	
	MTH416A	11	REGRESSION ANALYSIS			No equivalent	MTH416Ashall be offered if any backlogs remain
	MTH418A	11	INFERENCE -I	MTH418	11	INFERENCE -I	
	MTH513A	11	ANALYSIS OF VARIANCE			No equivalent	MTH513Ashall be offered if any backlogs remain
	MTH412A	11	APPLIED STOCHASTIC PROCESS			No equivalent	MTH412A shall be offered if any backlogs remain
	MTH511A	11	STATISTICAL SIMULATION AND DATA ANALYSIS			No equivalent	MTH511A shall be offered if any backlogs remain
	MTH515A	11	INFERENCE - II	MTH515	11	INFERENCE - II	
	MTH517A	11	TIME SERIES ANALYSIS			No equivalent	MTH517A shall be offered if any backlogs remain
	MTH514A	11	MULTIVARIATE ANALYSIS			No equivalent	MTH514A shall be offered if any backlogs remain
	MTH516A	11	NON-PARAMETRIC INFERENCE	MTH516	11	NON-PARAMETRIC INFERENCE	
	MTH535A	9	AN INTRODUCTION TO BAYESIAN ANALYSIS			No equivalent	MTH535A shall be

							offered if any backlogs remain

* Note: Y22 onwards, the new template is applicable. Y23 onwards, M.Sc programs are under DPGC/SPGC.

Note: As per the new UGARC recommendation, the first year IC course MTH101A (Mathematics I, 11 credits) has been split into modules MTH111M (Single Variable Calculus, 6 credits) and MTH112M (Application of Single Variable Calculus and Several Variable Calculus, 6 credits). Again, MTH102A (Mathematics II, 11 credits) has been split into modules MTH113M (Linear Algebra, 6 credits) and MTH114M (Ordinary Differential Equations, 6 credits). The courses MTH101A and MTH102A shall continue to be offered if any backlogs remain.

Statistics & Data Science (SDS)

Program	Course(s) as per Old UGARC			Courses as per New UGARC			Remark if Any
	Code	Credits	Title	Code	Credits	Title	
B.S.	MTH301A	11	Analysis I	MTH301	11	Analysis I	
	MTH207A	6	Matrix Algebra and Linear Estimation (Module II)	MTH207M	6	Matrix Algebra and Linear Estimation (Module II)	
	MTH208A	5	Data Science Lab I	MTH208	5	Data Science Lab I	
	MTH211A	11	Theory of Statistics	MTH211	11	Theory of Statistics	
	MTH210A	10	Statistical Computing	MTH210	10	Statistical Computing	
	MTH212A	6	Elementary Stochastic Processes I	MTH212M	6	Elementary Stochastic Processes I	
	MTH209A	5	Data Science Lab II	MTH209	5	Data Science Lab II	
	MTH442A	10	Time Series Analysis	MTH442	10	Time Series Analysis	
	MTH441A	10	Linear Regression and ANOVA	MTH441	10	Linear Regression and ANOVA	
	MTH399A	2	Communication Skills	ETH111	3	Practical Ethics	
	MTH422A	10	Bayesian Analysis	MTH422	10	Bayesian Analysis	
	MTH314A	10	Multiverse Analysis	MTH314	10	Multiverse Analysis	
	MTH312A	5	Data Science Lab III	MTH312	5	Data Science Lab III	
	MTH443A	10	Statistical and AI techniques in Data Mining	MTH443	10	Statistical and AI techniques in Data Mining	
Dual Degree	MTH697A	9	MS Project I	MTH697	9	MS Project I	
	MTH698A	9	MS Project II	MTH698	9	MS Project II	
	MTH699A	9	MS Project III	MTH699	9	MS Project III	
	MTH700A	9	MS Project IV	MTH700	9	MS Project IV	
Double Major	-	-	-	-	-	-	-
Minor	MSO205A	11	Introduction To Probability Theory	MSO205*	11	Introduction To Probability Theory	
	HSO201A	11	Applied Probability and Statistics	HSO201	11	Applied Probability and Statistics	
	CS203B	5	Mathematics For Computer Science -III	CS203M	5	Mathematics For Computer Science - III	
	MTH211A	11	Theory of Statistics	MTH211	11	Theory of Statistics	
	MTH208A	5	Data Science Lab I	MTH208	5	Data Science Lab I	
	MTH441A	10	Linear Regression and ANOVA	MTH441	10	Linear Regression and ANOVA	

* Note: The earlier requirement "MSO205A or HSO201A or CS203B" may be covered by "MSO205 or HSO201 or CS203M or MSO201 Probability and Statistics"

Physics (PHY)

Program	Course(s) as per Old UGARC			Courses as per New UGARC			Remark if Any
	Code	Credits	Title	Code	Credits	Title	
B.S.	PHY224A	12	Optics	PHY224	12	Optics	
	PHY210A	6	Thermal Physics	PHY210M	6	Thermal Physics	
	PHY226B	6	Relativity	PHY226M	6	Relativity	
	PHY315A	9	Modern Physics Laboratory	PHY315	9	Modern Physics Laboratory	
	PHY401A	11	Classical Mechanics-I	PHY401	11	Classical Mechanics-I	
	PHY421A	11	Mathematical Methods-I	PHY421	11	Mathematical Methods-I	
	PHY431A	11	Quantum Mechanics-I	PHY431	11	Quantum Mechanics-I	
	PHY412A	11	Statistical Mechanics	PHY412	11	Statistical Mechanics	
	PHY473A	8	Computational Physics	PHY617	12	Computational Physics	
	PHY399A	2	Technical Communication	PHY600/ 888	3	Introduction To Profession and Communication Skills For Physicists	
	PHY461A	8	Experimental Physics-I	PHY461	8	Experimental Physics-I	
	PHY552A	11	Classical Electrodynamics-I	PHY552	11	Classical Electrodynamics-I	
Dual Degree	-	-	-	-	-	-	
Double Major	-	-	-	-	-	-	
Minor	PSO201A	8	QUANTUM PHYSICS	PSO201	8	QUANTUM PHYSICS	
M.Sc.-2YR	PHY401A	11	CLASSICAL MECHANICS I	-	-	-	
	PHY421A	11	MATHEMATICAL METHODS I	-	-	-	
	PHY431A	11	QUANTUM MECHANICS I	-	-	-	
	PHY441A	11	ELECTRONICS	-	-	-	
	PHY461A	8	EXPERIMENTAL PHYSICS I	-	-	-	
	PHY412A	11	STATISTICAL MECHANICS	-	-	-	
	PHY432A	11	QUANTUM MECHANICS II	PHY626	11	Quantum Mechanics II	
	PHY462A	8	EXPERIMENTAL PHYSICS II	-	-	-	
	PHY473A	8	COMPUTATIONAL PHYSICS	PHY617	12	Computational Physics	
	PHY552A	11	CLASSICAL ELECTRODYNAMICS I	-	-	-	
	PHY563A	11	M.SC. PROJECT I	-	-	-	
	PHY565A	11	M.SC. PROJECT II	-	-	-	
	PHY566A	11	M.SC. PROJECT III	-	-	-	
	PHY568A	11	M.SC. PROJECT IV	-	-	-	

	PHY543A	9	CONDENSED MATTER PHYSICS I	PHY623	11	Condensed Matter Physics	
	PHY553A	11	CLASSICAL ELECTRODYNAMICS II	PHY614	9	Classical Electrodynamics II	
	PHY524A	9	ATOMIC, MOLECULAR AND OPTICAL PHYSICS	PHY612	11	Atomic, Molecular and Optical Physics	
	PHY526A	9	NUCLEAR AND PARTICLE PHYSICS	PHY611	11	Introduction to Nuclear and Particle Physics	
MSPD	PHY400A	5	INTRODUCTION TO THE DEPARTMENT	PHY600/ 888	3	Introduction To Profession and Communication Skills For Physicists	
	PHY501A	9	M SC REVIEW PROJECT II	-	-	-	
	PHY502A	9	M.SC. REVIEW PROJECT III	-	-	-	
	PHY422A	11	MATHEMATICAL METHODS II	PHY625	11	Mathematical Methods II	
	PHY692A	12	MEASUREMENT TECHNIQUE	-	-	-	

Subject: [Fwd: Re: [SUGC]Equivalence of Old UGARC and New UGARC Courses]
From: "Chairperson, SUGC" <sugc@iitk.ac.in>
Date: 30/11/2023, 22:18
To: rkpatel@iitk.ac.in

FYI.
--
Chairperson
Senate Undergraduate Committee (SUGC)
IIT Kanpur

---------- Original Message ----------
Subject: Re: [SUGC]Equivalence of Old UGARC and New UGARC Courses
From: dugc_hss@iitk.ac.in
Date: Thu, November 30, 2023 9:46 pm
To: "Chairperson, SUGC" <sugc@iitk.ac.in>

With respect to HSS courses, all existing courses with the suffix 'A' (under the old UGRC) are equivalent to the same course number without the suffix 'A' (under the new UGRC).

ENG112C and COM200 (both required courses under the old UGRC) are no longer part of the new UGRC and will not be offered by HSS any longer. There are no equivalents for these courses in the HSS courses for the new UGRC.

Sincerely,
Suchitra

Email: sugc@iitk.ac.in

AP-224
571 SENATE MEETING

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INDIAN INSTITUTE OF TECHNOLOGY KANPUR
UNDERGRADUATE OFFICE

Chairperson, SUGC

No.A(U)/2024-25/New&Old_UGARC/2 12145
April 04, 2025

The Chairman, Senate
IIT Kanpur

Subject: ***To consider the additional course equivalent/mapping details submitted by the departments as per Old UGARC and New UGARC.***

Dear Sir,

This is apprised that the course mapping data received from the departments has already been discussed in the SUGC last year and subsequently, approved by the Senate in its meeting 2023-24/5th (564th) held on June 06-07, 2024. Further, during scrutiny of the graduation requirements of Y21 and earlier batches, the office has noticed that mapping of some courses is still required. In this regard, the office has contacted some of the departments to map some specific courses as detailed below:

1) AE641A[9]- Old UGARC and AE641[9]-New UGARC
2) AE777A[9]- Old UGARC and AE777[9]-New UGARC
3) PHY101A[3]-Old UGARC and PHY111[3]- New UGARC
4) PHY102A[11]-Old UGARC and PHY112[11]- New UGARC
5) PHY103A[11]-Old UGARC and PHY113[11]- New UGARC

Further, the SUGC discussed the above-mentioned course mapping in its 2024-25/4th and 2024-25/5th meeting held on February 17th, 2025, and after due deliberations, the committee positively recommended it to the Senate for further consideration with the condition that the rules related to the excess and/or less credits after doing New UGARC courses should be applicable as per the previously approved guidelines.

Therefore, it is requested to give your admittance for inclusion of 'additional course equivalent/mapping details as mentioned above (as per Old UGARC and New UGARC)' as an agenda in the forthcoming meeting of the Senate for further consideration.

With kind regards,

Yours Sincerely,

Secretary, Senate
Acting Chairman, Senate

(Shashank Shekhar)

Email: sugc@iitk.ac.in

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Fax: +91-512-259 6997

INDIAN INSTITUTE OF TECHNOLOGY KANPUR
UNDERGRADUATE OFFICE

Chairperson, SUGC

Secretary, Senate

Acting Chairman, Senate

No.A(U)/2024-25/New&Old_UGARC/3
May 22, 2025

To,
The Chairman, Senate
IIT Kanpur

Subject: ***To consider the additional course equivalent/mapping details submitted by the departments as per Old UGARC and New UGARC.***

Dear Sir,

This is apprised that the course mapping data received from the departments has already been discussed in the SUGC last year and subsequently, approved by the Senate in its meeting 2023-24/5th (564th) held on June 06-07, 2024. Further, during scrutiny of the graduation requirements of Y21 and earlier batches, the office has noticed that mapping of some courses is still required. In this regard, the office has contacted some of the departments to map some specific courses as detailed below:

1) UGP1 MSE349A[9]- Old UGARC and UGP1 MSE496[9]-New UGARC
2) UGP2 MSE398A[9]- Old UGARC and UGP2 MSE497[9]-New UGARC
3) UGP3 MSE497A[9]- Old UGARC and UGP3 MSE498[9]-New UGARC
4) UGP4 MSE449A[9]- Old UGARC and UGP4 MSE499[9]-New UGARC
5) UGP2 MTH392A[9]- Old UGARC and UGP2 MTH497[9]-New UGARC
6) UGP3 MTH393A[9]- Old UGARC and UGP3 MTH498[9]-New UGARC
7) UGP4 MTH394A[9]- Old UGARC and UGP4 MTH499[9]-New UGARC
8) UGP3 CS498A[9]- Old UGARC and UGP3 CS498[9]-New UGARC
9) UGP4 CS499A[9]- Old UGARC and UGP4 CS499[9]-New UGARC
10) CE451A [11]- Old UGARC and CE633 [9]/CE630 [9]-New UGARC
11) CE471A [11]- Old UGARC and CE620 [9]/CE621 [9]/CE723 [9]-New UGARC
12) CE481A [11]- Old UGARC and CE788M [5] & CE785M [5]-New UGARC
13) CHM611A [9]- Old UGARC and CHM611 [9]-New UGARC
14) CHM621A [9]- Old UGARC and CHM621 [9]-New UGARC
15) CHM664A [9]- Old UGARC and CHM664 [9]-New UGARC
16) IME697A [0]- Old UGARC and IME697 [0]/DMS697 [0]- New UGARC
17) IME611A [11]- Old UGARC and DMS611 [11]/IME611 [11]- New UGARC
18) IME701A [9]- Old UGARC and DMS661 [9] -New UGARC
19) In general, IMExyzA is equivalent to DMSxyz, while MBAxyz remains unchanged with the following two exceptions:
    i. IME702A [9]- Old UGARC and DMS662 [9] -New UGARC
    ii. IME701A [9]- Old UGARC and DMS661 [9] -New UGARC
20) CHE398A [9]- Old UGARC and CHE496 [9] -New UGARC
21) CHE497A [9]- Old UGARC and CHE497 [9] -New UGARC

22) CHM202A [9]-Old UGARC and CHM202 [9]- New UGARC

Further, the SUGC discussed the above-mentioned course mapping in its 2024-25/7th and 2024-25/8th meeting held on April 24th, 2025 and May 21st, 2025 respectively, and after due deliberations, the committee positively recommended it to the Senate for further consideration with the condition that the rules related to the excess and/or less credits after doing New UGARC courses should be applicable as per the previously approved guidelines.

Therefore, it is requested to give your admittance for inclusion of 'additional course equivalent/mapping details as mentioned above (as per Old UGARC and New UGARC)' as an agenda in the forthcoming meeting of the Senate for further consideration.

With kind regards,

Yours Sincerely,

22/05/2025

(Shashank Shekhar)

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INDIAN INSTITUTE OF TECHNOLOGY KANPUR
UNDERGRADUATE OFFICE

Chairperson, SUGC

Secretary, Senate

No.A(U)/2024-25/New&Old_UGARC/4
June 6, 2025

To,
The Chairman, Senate
IIT Kanpur

Subject: ***To consider the additional course equivalent/mapping details submitted by the departments as per Old UGARC and New UGARC.***

Dear Sir,

This is apprised that the course mapping data received from the departments has already been discussed in the SUGC last year and subsequently, approved by the Senate in its meeting 2023-24/5th (564th) held on June 06-07, 2024. Further, during scrutiny of the graduation requirements of Y21 and earlier batches, the office has noticed that mapping of some courses is still required. In this regard, the office has contacted some of the departments to map some specific courses as detailed below:

S. No.	Old UGARC	New UGARC
1.	BSE399A (9)	BSE497 (9)
2.	BSE496A (9)	BSE496 (9)
3.	BSE497A (9)	BSE497 (9)
4.	BSE498A (9)	BSE498 (9)
5.	BSE499A (9)	BSE499 (9)
6.	CGS609A (9)	CGS609 (9)
7.	CGS622A (9)	CGS622 (9)
8.	CGS786A (9)	CGS786 (9)
9.	CGS401A (9)	CGS401 (9)
10.	CGS402A (9)	CGS402 (9)
11.	CGS621A (9)	CGS621 (9)
12.	CHM491A (9)	CHM491 (9)
13.	CHM611A (9)	CHM611 (9)
14.	CHM621A (9)	CHM621 (9)
15.	CHM664A (9)	CHM664 (9)
16.	CHM402A (9)	CHM402 (9)
17.	CHM503A (6)	CHM503 (6)
18.	PHY432A/PHY626A (11)	PHY432/PHY626 (11)
19.	PHY543A (11)/PHY623A	PHY543 (4)/PHY623 (11)
20.	PHY526A/PHY611A (11)	PHY526/PHY611 (11)
21.	PHY524A/PHY612A (11)	PHY524/PHY612 (11)
22.	PHY553A (11)/ PHY614A (9)	PHY553 (4)/PHY614 (9)
23.	PHY422A/PHY625A (11)	PHY422/PHY625 (11)
24.	PHY473A(12) → PHY617A(12)	PHY617 (12)
25.	PHY628A (11)	PHY628 (11)
26.	PHY461A (8)	PHY461 (8)

27.	PHY462A (8)	PHY462 (8)
28.	PHY563A (9)	PHY563 (9)
29.	PHY565A (9)	PHY565 (9)
30.	PHY566A (11)	PHY566 (9)
31.	PHY568A (11)	PHY568 (11)
32.	ECO413A (9)	ECO413 (9)
33.	ME351A (8)	ME351 (8)
34.	ME623A (9)	ME623 (9)
35.	ME630A (9)	ME630 (9)
36.	CS772A (9)	CS772 (9)
37.	CS637A (9)	CS637 (9)
38.	CS779A (9)	CS779 (9)
39.	CS661A (9)	CS661 (9)
40.	CS681A (9)	CS681 (9)
41.	CS335A (13)	CS335 (13)
42.	EE650A (9)	EE650 (9)
43.	CS786A (9)	CS786 (9)
44.	CS685A (9)	CS685 (9)
45.	CS360A (9)	CS360 (9)
46.	CS690A (9)	CS690 (9)
47.	CS648A (9)	CS648 (9)
48.	CS455A (9)	CS455 (9)
49.	CS677A (9)	CS677 (9)
50.	CS646A (9)	CS646 (9)
51.	CS350A (9)	CS350 (9)
52.	CS687A (9)	CS687 (9)
53.	CS747A (9)	CS747 (9)
54.	CS666A (9)	CS666 (9)
55.	CS616A (9)	CS616 (9)
56.	CS667A (9)	CS667 (9)
57.	CS744A (9)	CS744 (9)
58.	CS641A (9)	CS641 (9)
59.	SPA611A (9)	SPA611 (9)
60.	SPA610A (9)	SPA610 (9)
61.	SPA601A (9)	SPA601 (9)

Further, the SUGC discussed the above-mentioned course mapping in its 2024-25/9th meeting held on June 5, 2025 , and after due deliberations, the committee positively recommended it to the Senate for further consideration with the condition that the rules related to the excess and/or less credits after doing New UGARC courses should be applicable as per the previously approved guidelines.

Therefore, it is requested to give your admittance for inclusion of 'additional course equivalent/mapping details as mentioned above (as per Old UGARC and New UGARC)' as an agenda in the forthcoming meeting of the Senate for further consideration.

With kind regards,

Yours Sincerely,

(Shashank Shekhar)

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INDIAN INSTITUTE OF TECHNOLOGY KANPUR
UNDERGRADUATE OFFICE

Chairperson, SUGC

No.A(U)/2024-25/New&Old_UGARC/4
July 30, 2025

To,
The Chairman, Senate
IIT Kanpur

Approved.

Subject: ***To consider the additional course equivalent/mapping details submitted by the Economics Science (ESCOs) department as per Old UGARC and New UGARC.***

Dear Sir,

This is apprised that the course mapping data received from the departments has already been discussed in the SUGC last year and subsequently, approved by the Senate in its meeting 2023-24/5th (564th) held on June 06-07, 2024. Recently, the Economics Science (ECOs) department has noticed that some courses which are mandatory for Double Major students (Old UGARC) are now not offered by the departments. Thus, based on the request of some Y21 batch students, the department has proposed mapping of the following specific courses:

1) ECO411A(9) Old UGARC with ECO734(9) New UGARC
2) ECO412A(9) Old UGARC with ECO526(9) New UGARC
3) ECO413A(9) Old UGARC with ECO726(9) New UGARC
4) ECO311A(9) Old UGARC with ECO735(9) New UGARC

Further, in view of the registration of the 2025-26-I semester, the SUGC circulated the above-mentioned course mapping over mail for the feedback of the members on July 24, 2025, since no adverse comments was received from the members, the SUGC positively recommended the proposed course mapping to the Senate for further consideration with the condition that the rules related to the excess and/or less credits after doing New UGARC courses should be applicable as per the previously approved guidelines.

Therefore, it is requested to kindly accord your approval so that the Y21 Double Major students can register for the courses in the upcoming add-drop period of the 2025-26-I semester. The decision will be reported to the Senate for post-facto ratification in its next meeting.

With kind regards,

Yours Sincerely,

(Shashank Shekhar)