

Department of Humanities and Social Science
5 year BSMS (Economics) with exit policy

Component wise distribution

Main Curriculum Components	Sub Components	Approved Credits for 5 year BSMS	Approved Credits Range	Proposed credits for 5 year BSMS by Department	Proposed Credits Range	Approved Credits for 4 year BSMS exit	Approved Credits Range	Proposed credits for 4 year BSMS exit by Department	Proposed Credits Range
Institute Core Course	HSSC	5	52-58	5	53	5	52-58	5	53
	HSSEC	6		6		6			
	MC	3		3		3			
	BSC	12-20		20		12-20		20	
	ESC	8-20		8		8-20		8	
	DSC	4		4		4		4	
	ESSC	3		3		3		3	
	TM	4		4		4		4	
Program Core Course	CCCC	52-62	127-133	56	128	40-48	87-91	44	90
	AI/ML	2		2		2			
	Engg. Analysis and design (design thinking based project)/Industry Oriented Problem Solving/ Lab based Project/ Practical Problem/ Case study	4		4		4			
	Technical Communication	2		2		2			
	BTP/Entrepreneurship/ Project-based internship/PEC	16		16		6-10		6	
	PEC	32-40		40		22-26		24	
	TEB	6-8		8		6-8		8	
	OEC	9-12		9-12		9-12		9-12	
CORE	2	2	2	2	2	2	2	2	
	Total	190-200		192-195		150-160		154-157	
	MSC/DHC	18/20		18/20		18/20		18/20	
	Grand Total			210-215				172-177	

**DEPARTMENT OF HUMANITIES AND SOCIAL SCIENCE
INDIAN INSTITUTE OF TECHNOLOGY ROORKEE
5 year BSMS (Economics) with exit policy**

Program Code : 322 - BS-MS (Economics)
Department : HSS – Humanities and Social Science

Teaching Scheme

Year	Credits in Autumn Semester	Credits in Spring Semester	Credits (Year-wise)
1	23	21	44
2	23/24	21/22	44/46
3	21/22	23	44/45
4	24	20	44
5	6	10	16
Grand Total			192/195
Total with Minor Specialization Courses	with additional 18-20 credits (mentioned in the parentheses)		210/215

	Components	Maximum	Minimum	Comments
	Discipline (DIS)	20	10	To be evaluated by DoSW
Non-Credit Elements (NCE)	NCC/NSS/NSO	8	4	To be evaluated by DoSW
	Internship (INT)	32	10	1 week internship= 1 unit (To be coordinated by departments/centres/school)
	Participation in professional development programs by Industry experts/ field experts (PPD-1, PPD-2 & PPD-3)	12	6	To be coordinated by departments/centres/school (2 nd , 3 rd and 4 th Years)
Minimum non-credit to be earned: 30				

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Teaching Scheme

Year	Credits in Autumn Semester	Credits in Spring Semester	Credits (Year-wise)
1	23	21	44
2	23/24	21/22	44/46
3	21/22	23	44/45
4	16	6	22
Grand Total			154/157
Total with Minor Specialization Courses	with additional 18-20 credits (mentioned in the parentheses)		172/177

Non-Credit Elements (NCE)	Components	Maximum Units	Minimum Units	Comments
	Discipline (DIS)	16	8	To be evaluated by DoSW
	NCC/NSS/NSO	8	4	To be evaluated by DoSW
	Internship (INT)	24	8	1-week internship= 1 unit (to be coordinated by the deptt. /Centres/School)
	Participation in professional development programs by Industry experts/ field experts (PPD-1 & PPD-2)	8	4	To be coordinated by the departments/Centres/school (2 nd & 3 rd Years)
Minimum non-credit units to be earned: 24				

DEPARTMENT OF HUMANITIES AND SOCIAL SCIENCE

Program Code : 322 - BS-MS (Economics)
 Department : HSS – Humanities and Social Science
 Year : I

Teaching Scheme					Contact Hours/Week			Exam Duration		Relative Weight (%)				
S.No.	Subject Code	Course Title	Subject Area	Credits	L	T	P	Theory	Practical	CWS	PRS	MTE	ETE	PRE
(Autumn)														
1.	HSI-101	Soft Skills	HSSC	3	2	0	2	2	0	10-25	25	15-25	30-40	-
2.	MAI-101	Mathematics-I	BSC	4	3	1	0	3	0	20-35	-	20-30	40-50	-
3.	PHI-101	Physics-I	BSC	4	3	1	2/2	3	0	15-30	20	15-25	30-40	-
4.	HSC-101	Computer Programming for Economists	PCC	4	3	0	2	3	2	10-25	25	15-25	30-40	-
5.	TMI-101	Tinkering & Mentoring	TM	4	T-2	-	-	-	-	70	30	-	-	-
					M-2	2	0	0	2	-	50	-	-	50
6.	CSE-101	Data Structures and Algorithms	ESC	4	3	1	0	3	0	20-35	-	20-30	40-50	-
Total				23										
(Spring)														
1.	HSI-102	Indian Knowledge System	HSSC	2	2	0	0	2	0	20-35	-	20-30	40-50	-
2.	MAI-102	Mathematics-II	BSC	4	3	1	0	3	0	20-35	-	20-30	40-50	-
3.	ESS-103	Environmental Science and Sustainability	ESSC	3	3	0	0	3	0	20-35	-	20-30	40-50	-
4.	HSC-102	Introductory Microeconomics	PCC	4	3	1	0	3	0	20-35	-	20-30	40-50	-
5.	HSC-104	Introductory Macroeconomics	PCC	4	3	1	0	3	0	20-35	-	20-30	40-50	-
6.	PHB-103	Modern Physics	BSC	4	3	1	0	3	0	20-35	-	20-30	40-50	-
Total				21										

DEPARTMENT OF HUMANITIES AND SOCIAL SCIENCE

Program Code : 322 - BS-MS (Economics)
 Department : HSS – Humanities and Social Science
 Year : II

Teaching Scheme					Contact Hours/Week			Exam Duration		Relative Weight (%)				
S.No.	Subject Code	Course Title	Subject Area	Credits	L	T	P	Theory	Practical	CWS	PRS	MTE	ETE	PRE
(Autumn)														
1.	DAI-101	Data Science	DSC	4	3	1	0	3	0	20-35	-	20-30	40-50	-
2.	OEC-I	Open Elective Course-I	OEC	3/4										
3.	HSC-201	Advanced Microeconomics	PCC	4	3	1	0	3	0	20-35	-	20-30	40-50	-
4.	HSC-203	Advanced Macroeconomics	PCC	4	3	1	0	3	0	20-35	-	20-30	40-50	-
5.	HSC-205	Introduction to Econometric Theory	PCC	4	3	0	2	3	0	10-25	25	15-25	30-40	-
6.	MAB-104	Mathematical Methods	BSC	4	3	1	0	3	0	20-35	-	20-30	40-50	-
		Total		23/24										
(Spring)														
1.	HSSEC-I	HSS Elective Course-I	HSSEC	3										
2.	OEC-II	Open Elective Course-II	OEC	3/4										
3.	MSI-101	Fundamentals of Management	MC	3	3	0	0	3	0	20-35	-	20-30	40-50	-
4.	HSC-202	Elementary Development Economics	PCC	4	3	1	0	3	0	20-35	-	20-30	40-50	-
5.	HSC-204	Advanced Econometric Theory	PCC	4	3	0	2	3	0	10-25	25	15-25	30-40	-
6.	CEE-106	Geospatial Techniques and Programming	ESC	4	3	0	2	3	0	10-25	25	15-25	30-40	-
		Total		21/22										

DEPARTMENT OF HUMANITIES AND SOCIAL SCIENCE

Program Code : **322 - BS-MS (Economics)**
 Department : **HSS – Humanities and Social Science**
 Year : **III**

Teaching Scheme					Contact Hours/Week			Exam. Duration		Relative Weight (%)				
S.No.	Subject Code	Course Title	Subject Area	Credits	L	T	P	Theory	Practical	CWS	PRS	MTE	ETE	PRE
(Autumn)														
1	OEC-III	Open Elective Course-III	OEC	3/4										
2	HSC-351	Fundamentals of AI/ML	PCC	2	2	0	0	2	0	20-35	-	20-30	40-50	-
3	HSC-301	Environmental Economics: Theory & Policy	PCC	4	3	1	0	3	0	20-35	-	20-30	40-50	-
4	HSC-391	Technical Communication	PCC	2	1	0	2			100				
5	HST-I	Talent Enhancement Course-I	TEB	4	3	0	2	3	0	10-25	25	15-25	30-40	-
6	HSL-I	Program Elective Course-I	PEC	4	3	1	0	3	0	20-35	-	20-30	40-50	-
7	HSC-399	Community Outreach	CORE	2						100				
		Total		21/22										
(Spring)														
1	HSSEC-II	HSS Elective Course-II	HSSEC	3										
2	HSC-302	Monetary Economics	PCC	4	3	1	0	3	0	20-35	-	20-30	40-50	-
3	HST-II	Talent Enhancement Course-II	TEB	4	3	0	2	3	0	10-25	25	15-25	30-40	-
4	HSL-II	Program Elective Course-II	PEC	4	3	1	0	3	0	20-35	-	20-30	40-50	-
5	HSL-III	Program Elective Course-III	PEC	4	3	1	0	3	0	20-35	-	20-30	40-50	-
6	HSL-IV	Program Elective Course-IV	PEC	4	3	1	0	3	0	20-35	-	20-30	40-50	-
7	MSC/DHC-I	Minor Specialization Course-I/ Departmental Honours Course-I	MSC/DHC	3/4										
		Total		23/ 26-27										
Note: Students willing to exit with BS Degree in Economics must inform to Dean (Academic Affairs) after completion of 6 th semester														

DEPARTMENT OF HUMANITIES AND SOCIAL SCIENCE

Program Code : 322 - BS-MS (Economics)
 Department : HSS – Humanities and Social Science
 Year : IV

Teaching Scheme					Contact Hours/Week			Exam Duration		Relative Weight (%)				
S.No.	Subject Code	Course Title	Subject Area	Credits	L	T	P	Theory	Practical	CWS	PRS	MTE	ETE	PRE
(Autumn)														
1.	HSC-400	Eng. Anal & Design*—Industry Oriented Problems/Lab Based Projects/ Practical Problems/Case Study	PCC	4										
2.	HSC-403	Financial Economics: Theory & Applications	PCC	4	3	0	2	3	0	10-25	25	15-25	30-40	-
3.	HSC-405	Principles of International Economics	PCC	4	3	1	0	3	0	20-35	-	20-30	40-50	-
4.	HSL-V	Program Elective Course-V	PEC	4	3	1	0	3	0	20-35	-	20-30	40-50	-
5.	HSL-VI	Program Elective Course-VI	PEC	4	3	1	0	3	0	20-35	-	20-30	40-50	-
6.	HSL-VII	Program Elective Course-VII	PEC	4	3	1	0	3	0	20-35	-	20-30	40-50	-
7.	MSC/DHC-II	Minor Specialization Course-II/ Departmental Honours Course-II	MSC/DHC	3/4										
		Total		24/ 27-28										
(Spring)														
1.	HSC-402	Public Policy	PCC	4	3	1	0	3	0	20-35	-	20-30	40-50	-
2.	HSC-404	Growth Economics	PCC	4	3	1	0	3	0	20-35	-	20-30	40-50	-
3.	HSL-VIII	Program Elective Course-VIII	PEC	4	3	1	0	3	0	20-35	-	20-30	40-50	-
4.	HSL-IX	Program Elective Course-IX	PEC	4	3	1	0	3	0	20-35	-	20-30	40-50	-
5.	HSL-X	Program Elective Course-X	PEC	4	3	1	0	3	0	20-35	-	20-30	40-50	-
6.	MSC/DHC-III	Minor Specialization Course-III/ Departmental Honours Course-III	MSC/DHC	3/4										
		Total		20/ 23-24										

DEPARTMENT OF HUMANITIES AND SOCIAL SCIENCE

Program Code : 322 - BS-MS (Economics)
 Department : HSS – Humanities and Social Science
 Year : V

Teaching Scheme					Contact Hours/Week			Exam Duration		Relative Weight (%)				
S.No.	Subject Code	Course Title	Subject Area	Credits	L	T	P	Theory	Practical	CWS	PRS	MTE	ETE	PRE
(Autumn)														
1.	HSP-501	Thesis (Stage-I)	PCC	6						100				
2.	MSC/DHC-IV	Minor Specialization Course-IV/ Departmental Honours Course-IV	MSC/DHC	3/4										
3.	MSC/DHC-V	Minor Specialization Course-V / Departmental Honours Course-V	MSC/DHC	3/4										
		Total		6/ 12-14										
Semester-II (Spring)														
1.	HSP-502	Thesis (Stage-II)	PCC	10						100				
		Total		10										

DEPARTMENT OF HUMANITIES AND SOCIAL SCIENCE

Program Code : 322 - BS-MS (Economics) Exit policy
 Department : HSS – Humanities and Social Science
 Year : IV

Teaching Scheme					Contact Hours/Week			Exam. Duration		Relative Weight (%)				
S.No.	Subject Code	Course Title	Subject Area	Credits	L	T	P	Theory	Practical	CWS	PRS	MTE	ETE	PRE
(Autumn)														
1.	HSC-400	Eng. Anal & Design*/Industry Oriented Problems/Lab Based Projects/ Practical Problems/Case Study	PCC	4										
2.	HSC-403	Financial Economics: Theory & Applications	PCC	4	3	0	2	3	0	10-25	25	15-25	30-40	-
3.	HSL-V	Program Elective Course-V	PEC	4	3	1	0	3	0	20-35	-	20-30	40-50	-
4.	HSL-VI	Program Elective Course-VI	PEC	4	3	1	0	3	0	20-35	-	20-30	40-50	-
5.	MSC/DHC-II	Minor Specialization Course-II/ Departmental Honours Course-II	MSC/DHC	3/4										
6.	MSC/DHC-III	Minor Specialization Course-III/ Departmental Honours Course-III	MSC/DHC	3/4										
		Total		16/ 22-24										
(Spring)														
1.	HSP-400/ HSL	Project/Entrepreneurship/ Project-based Internship/PEC*	PCC/PEC*	6						100				
2.	MSC/DHC-IV	Minor Specialization Course-IV/ Departmental Honours Course-IV	MSC/DHC	3/4										
3.	MSC/DHC-V	Minor Specialization Course-V/ Departmental Honours Course-V	MSC/DHC	3/4										
		Total		6/ 12-14										

List of Program Elective Courses

Teaching Scheme			Subject Area	Credits	Contact Hours/Week			Exam Duration (Hrs.)		Relative Weight (%)				
S. No.	Subject Code	Course Title			L	T	P	Theory	Practical	CWS	PRS	MTE	ETE	PRE
1	HSL-301	Economics of Risk and Uncertainty	PEC	4	3	1	0	3	0	20-35	-	20-30	40-50	-
2	HSL-302	Agricultural Economics	PEC	4	3	1	0	3	0	20-35	-	20-30	40-50	-
3	HSL-303	Labour Economics	PEC	4	3	1	0	3	0	20-35	-	20-30	40-50	-
4	HSL-501	Game Theory	PEC	4	3	1	0	3	0	20-35	-	20-30	40-50	-
5	HSL-502	Indian Economy	PEC	4	3	1	0	3	0	20-35	-	20-30	40-50	-
6	HSL-503	Advanced Development Economics	PEC	4	3	1	0	3	0	20-35	-	20-30	40-50	-
7	HSL-504	Behavioural Economics	PEC	4	3	1	0	3	0	20-35	-	20-30	40-50	-
8	HSL-505	Industrial Organization	PEC	4	3	1	0	3	0	20-35	-	20-30	40-50	-
9	HSL-506	Energy Economics	PEC	4	3	1	0	3	0	20-35	-	20-30	40-50	-
10	HSL-601	Research Methods	PEC	4	3	0	2	3	0	20-35	-	20-30	40-50	-
11	HSL-602	Economics of Services	PEC	4	3	1	0	3	0	20-35	-	20-30	40-50	-
12	HSL-603	Health Economics	PEC	4	3	1	0	3	0	20-35	-	20-30	40-50	-
13	HSL-604	Public Finance	PEC	4	3	1	0	3	0	20-35	-	20-30	40-50	-
14	HSL-605	Economics of Infrastructure	PEC	4	3	1	0	3	0	20-35	-	20-30	40-50	-
15	HSL-606	Ecological Economics	PEC	4	3	1	0	3	0	20-35	-	20-30	40-50	-
16	HSL-607	Panel Data Analysis	PEC	4	3	0	2	3	0	20-35	-	20-30	40-50	-
17	HSL-651	Advanced International Economics	PEC	4	3	1	0	3	0	20-35	-	20-30	40-50	-
18	HSL-652	Welfare Economics	PEC	4	3	1	0	3	0	20-35	-	20-30	40-50	-
19	HSL-653	History of Economic Thought	PEC	4	3	1	0	3	0	20-35	-	20-30	40-50	-
20	HSL-654	Institutional Economics	PEC	4	3	1	0	3	0	20-35	-	20-30	40-50	-
21	HSL-655	Innovation & Economic Policy	PEC	4	3	1	0	3	0	20-35	-	20-30	40-50	-
22	HSL-656	Resource Economics & Valuation	PEC	4	3	1	0	3	0	20-35	-	20-30	40-50	-
23	HSL-657	Household Economics	PEC	4	3	1	0	3	0	20-35	-	20-30	40-50	-

List of Talent Enhancement Course

Teaching Scheme					Contact Hours/Week			Exam Duration		Relative Weight (%)				
S. No.	Course Code	Course Title	Area	Cr.	L	T	P	Th.	Pr.	C W S	PRS	MTE	E T E	PRE
TEB-A														
1	HST-101	Economic Data Analysis	TEB	4	3	0	2	3	0	10-25	25	15-25	30-40	-
2	HST-102	Cross-sectional Data Analysis	TEB	4	3	0	2	3	0	10-25	25	15-25	30-40	-
3	HST-103	Time Series Data Analysis	TEB	4	3	0	2	3	0	10-25	25	15-25	30-40	-
TEB-B														
1	HST-104	Applied Econometrics	TEB	4	3	0	2	3	0	10-25	25	15-25	30-40	-
2	HST-105	Applied Production Econometrics	TEB	4	3	0	2	3	0	10-25	25	15-25	30-40	-
3	HST-106	Optimization and Nonparametric Efficiency Analysis	TEB	4	3	0	2	3	0	10-25	25	15-25	30-40	-
TEB-C														
1	HST-107	Business Analytics	TEB	4	3	0	2	3	0	10-25	25	15-25	30-40	-
2	HST-108	Analytics for Business and Society	TEB	4	3	0	2	3	0	10-25	25	15-25	30-40	-
3	HST-109	Social and Economic Networks	TEB	4	3	0	2	3	0	10-25	25	15-25	30-40	-

Minor Specialization Courses

SN	Course Code	Course Name	Credits	Semester
1.	HSC-201	Advanced Microeconomics	4	Autumn
2.	HSC-203	Advanced Macroeconomics	4	Autumn
3.	HSC-205	Introduction to Econometric Theory	4	Autumn
4.	HSC-102	Introductory Microeconomics	4	Spring
5.	HSC-104	Introductory Macroeconomics	4	Spring
6.	HSC-202	Elementary Development Economics	4	Spring

Departmental Honours Courses (20 credits)

SN	Course Code	Course Name	Credits
1.	HSL-503	Advance Development Economics	4
2.	HSL-651	Advance International Economics	4
3.	HSL-603	Public Finance	4
4.	HSL-606	Ecological Economics	4
5.	HSL-303	Labour Economics	4
6.	HSL-301	Economics of Risk and Uncertainty	4
7.	HSL-501	Game Theory	4
8.	HSL-653	History of Economic Thought	4
9.	HSL-655	Innovation & Economic Policy	4
10.	HSL-656	Resource Economics & Valuation	4