Information Brochure

teri school of advanced studies

2020/21

TERI School of Advanced Studies, 10, Institutional Area
Vasant Kunj, New Delhi – 110 070

Disclaimer:

The information in this booklet is for general information purpose only. Whilst we have made every attempt to ensure that the information contained in this booklet is up to date and correct, TERI SAS has the rights to update/modify the information at any stage as per requirement.

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About TERI School of Advanced Studies

The genesis of TERI SAS is rooted in the comprehensive research, consultancy, and outreach activities of The Energy and Resources Institute. The relationship with TERI has propelled and influenced the evolution of the University's academic units. In 1999, the University was granted "Deemed to be University" status by the University Grants Commission and notified by the Ministry of Human Resources Development, Department of Education, Government of India. Earlier known as 'TERI University' the institution changed its name to 'TERI School of Advanced Studies'(TERI SAS) with effect from 29 November 2017.

With a mission to create knowledge and capacity in various areas of sustainable development, the TERI SAS exposes its students to a variety of subjects, tools and methodologies in an interdisciplinary mode.

Accredited with the National Assessment and Accreditation Council of India (NAAC), the University has received accolades for incorporating new and innovative elements in education. All technical programmes of the University are approved by the AICTE.

In keeping with its global outlook, the TERI SAS has academic collaborations with select foreign universities, which provide for joint research and curriculum development as well as faculty and student exchanges. The University attracts students from all over the country and a fair number of international students.

Admission Calendar (Important dates)

		Dates
1	Issue of application form starts on	18 November 2019
2	Last date of issue of application form	
3	**(a)** Last date of issue of application form (MBA programme only)	15 May 2020
	(b) Last date of receipt of application forms	15 May 2020
4	Shortlisting of candidates for MBA programmes	22 May 2020
5	Date of online test for eligible (MBA candidates only)	30-31 May 2020
6	Date of online test for eligible M Sc, MA, M.Tech LLM candidates	30-31 May 2020
7	Group discussions/interviews for MBA programmes	8-9 June 2020
8	**(a)** Declaration of shortlists (other than MBA)	5 June 2020
	(b) Declaration of results of GD/interviews of MBA programmes	12 June 2020
9	Scrutiny and shortlisting of Ph. D applications by Department	1 June 2020
10	Interviews for all programmes (other than MBA)	8-11 June 2020
11	Interviews for sponsored candidates	8-11 June 2020
12	Ph.D common admission test (RAT+ Dept. Specific test)	15 June 2020
13	Ph. D Interviews	15-16 June 2020
14	Last date for payment of fees (for MBA)	18 June 2020
15	Declaration of final list and wait list (other than MBA and LLM)	16 June 2020
16	Declaration of final list and wait list (LLM)	25 June 2020
17	Last date for payment of fees (other than MBA and LLM)	26 June 2020
18	Activation of wait-list(s)	29 June 2020
19	Last date for payment of fees (LLM)	5 July 2020
20	Orientation and registration	13 July 2020
21	Commencement of classes	14 July 2020
22	Scrutiny and shortlisting of Ph. D applications by Department	23 November 2020
23	Ph.D common admission test (RAT+ Dept. Specific test)	14 December 2020
24	Ph. D Interviews	14-15 December 2020

Master Programme details

I. MA (Sustainable Development Practice)

The Master 's Programme in Sustainable Development Practice, i.e., MA (SDP) seeks to address the critical gap in sustainable development education in the developing regions where such capacity creation is required the most. The programme is designed based upon the recommendation of the global situation analysis of development training, capacity building programmes, under taken during 2007–08 by the International Commission on Education for Sustainable Development Practice. The Commission identified the need for development professionals who could navigate across the intellectual and institutional silos of specialized disciplines to develop integrated solutions that are scientifically, politically, and contextually grounded.

Programme Highlights

Students are taught the latest practices in sustainable development by sector specialists and academicians.

• Pedagogy strongly focusses on problem-based learning, case studies, seminars, and field visits.

• The group practicum summer internship and final project integrate knowledge and skills, taught in various courses, with real-life challenges and enable students to analyse developmental problems holistically.

• Flexibility to opt for electives across departments and programmes depending on the area of interest

• Students also participate in the 'Global Classroom:

Integrated Approaches to Sustainable Development Practice', an interactive course blending online and offline learning led by some of the top experts in the field, globally.

Programme outline

Year	Courses	Credits	Duration*
First year			
1st semester	7 core courses	20	15 weeks
2nd semester	7 core courses	20	15 weeks
Summer internship			8 weeks
Second year			
3rd semester	3 core courses + 3 electives	19	15 weeks
4th semester	Final Project	16	15 weeks

* Does not include mid and end-semester breaks and evaluation schedules (based on major and minor tests and assignmen

Course details

Semester 1
Core – 7
Minimum Credit Requirement-20

Course no	Course Title	Type	No of Credits
MPD 127	Perspectives on Development	Core	1
MPD 143	Principles of Economics	Core	3
MPD 173	Social Research Methods	Core	4
MPD 111	Quantitative Analysis for Development Practice	Core	3
MPD 101	Integrated Approaches to Sustainable Development Practice	Core	3
MPD 135	Application of Environmental Science	Core	3
MPD 152	Law, Society and Sustainable Development	Core	3

Semester 2
Core – 7
Minimum Credit Requirement- 20

Course no	Course Title	Type	No of Credits
MPD 153	Management of Development Organizations	Core	3
MPD 124	Population and Health: Techniques of analysis Policy Perspectives	Core	3
MPD 126	Key concepts of Cultural and Political ecology	Core	2
MPD 102	Group Practicum	Core	4
MPD 185	Organizational Behaviour and Human Resource Management for non-profit Organizations	Core	3
MPD 145	Integrated Impact Assessment	Core	2
MPD 147	Development Economics	Core	3
NRE 172	Principles of Geoinformatics	Elective	3

Summer Internship – (6- 8 weeks) – Non Credit

Semester 3
Core-3
Electives-3
Minimum Credit Requirement- 19

Course no	Course Title	Type	No of Credits
MPD 129	Project Design and Management for Sustainable Development Practice	Core	4
MPD 161	Public Policy Processes and Institutions	Core	3

MPD 122	Public health and development: Issues and methods	Core	3
MPD 183	ICT for sustainable development	Elective	3
PPS 132	Development Theories and Processes	Elective	3
MPD 113	Application of Quantitative Data analysis in Development Practice	Elective	2
NRE 175	Geoinformatics for Resource Management	Elective	4
MPE 125	Ecological Economics	Elective	3
PPM 168	Sustainability Reporting	Elective	2
NRE 168	Food Security and Agriculture	Elective	3
MEU 167	Urban Development Policies and Programmes	Elective	3
NRE 167	Integrated Watershed Management	Elective	3
NRE 149	Governance and Management of Natural Resources	Elective	3
NRE 155	Environmental Law and Policy	Elective	3
MPL 153	Law and Justice in Globalizing World	Elective	3

Semester 4
Core -1
Minimum Credit Requirement- 16

Course no	Course Title	Type	No of Credits
MPD 104	Final Project	Core	16

Eligibility Criteria

An undergraduate degree in any discipline, from a recognized institution / university.

Candidates with prior experience in development sector would be preferred, although it is not mandatory.

Selection process

Admissions will be based on the basis of marks scored in the qualifying degree, online test and interview conducted by the University.
The online test will be one-hour long and will consist of one paper with 100 multiple-choice questions. The questions will be divided into three sections:

- * Proficiency in English
- * Analytical Reasoning
- * Mathematics

Wrong answers will invite negative marking. This would be followed by an interview.

Admission will be made on the basis of a statement of purpose, past academic performance, a common entrance test, and personal interview.

• For international candidates, TOEFL/IELTS score is mandatory.

• Application forms can be downloaded from the TERI SAS website.

Sponsored Candidates

Candidates working in the Industry / Government / Development Organizations are encouraged to apply for the full-time Masters programme. All those who satisfy the minimum qualifications as mentioned above for each programme may be admitted to the programme after an interview.

These candidates are required to submit, at the time of interview, a sponsorship certificate from their employer on a proper letterhead, NOC stating that for the period of his/her study at the University, the candidate will be treated as on duty with usual salary and allowances and that he/she will be fully relieved for the period of study for pursuing his/her studies. Sponsored candidate's application will be accepted only from those on the pay rolls of & sponsored by a registered company. Such applications would need to be accompanied by the audited balance sheet of the company and last year's income tax return of the applicant indicating the salary received from the company.

Placements and Internships: In past students have got opportunities in the following places after getting selected through the selection process of the concerned company/organization.

- The Energy and Resources Institute (TERI)
- International Food Policy Research Institute (IFPRI)
- WWF-India
- Population Services International (PSI)
- Pan Himalayan Grassroots Development Foundation
- Centre for Science and Environment
- UNESCO
- Planning Commission of India
- Public Health Foundation of India (PHFI)
- The Environmental Policy Research Centre, Freie University Berlin
- KPMG
- CII-ITC Centre of Excellence for Sustainable Development
- ITC Limited Rajasthan Rural Livelihood Project
- American India Foundation (AIF)
- Tata Trust
- Save the Children India
- HCL Foundation
- World Health Organization (WHO)
- Concern India Foundation
- Ernst & Young
- S M Sehgal Foundation
- International Centre for Integrated Mountain Development (ICIMOD)
- MSME Clusters

• Centre for Ecology Development and Research (CEDAR)

• Ministry of Women Affairs (MoWA), Afghanistan

• Centre for Health and Social Justice, Afghanistan

This is only an indicative list; the actual list is more comprehensive with credible organizations that have engaged our students in research, development, and implementation profiles

Career Prospects

The course aims to prepare students for employment in varied development organizations, such as national and international NGOs, bilateral and multinational financial

institutions, funding foundations and corporations, and social sector initiatives of companies. In addition, some of our alumni also have set start ups and have become

'Entrepreneurs'

II. MA (Public Policy & Sustainable Development)

The MA in Public Policy and Sustainable Development is a two-year Master's programme being offered by TERI University, New Delhi since 2006. It is a uniquely designed programme aimed at participants entering the phase of policy-making in their careers. The MA (PPSD) builds a robust theoretical knowledge base in public policy supported by case studies from the Indian context. It is distinct in structure, objectives and pedagogy from other programmes in Public Administration. It is sponsored by the Department of Personnel and Training (DoPT), Government of India.

Programme overview

The MA (Public Policy and Sustainable Development)- MA(PP&SD) - programme, offered by the TERI SAS encompasses a comprehensive and well-structured two year curriculum on public policy formulation, analysis, evaluation, management, and links with development concerns. Policy decisions by government officials at all levels are required to be increasingly multifaceted especially in the light of economic reforms and the need to ensure that decision-making contributes to sustainability in the development process. Private not-for-profit and for-profit business entities also have a bearing on development related policy decisions. To respond effectively to these issues, civil servants and those engaged in the non-governmental sectors, need to (1) be trained in the politics and economics of public policy and in sophisticated methods and tools of analysis, and (2) refresh their knowledge of the substantive development issues at hand.

Programme outline

Year	Courses	Credits	Duration
First semester	9 Core courses	17	18 weeks
International visit	Comparative study	2	
NGO attachment	Social impact assessment	2	
Second semester	9 courses	18	18 weeks
Third & Fourth semesters**	Project Works	27	At the participants' workplace

** The participants also have the option of exiting from the programme after one year, after completing the domestic and foreign components, in which case they would be awarded with a Post Graduate Diploma in Public Policy and Sustainability Development.

Course Details

Semester 1
Minimum credit requirements – 17
Core courses – 17 (all 9 courses)

Course No.	Course title	Type	Number of credits
PPS 133	Society and development policy	Core	2
NRE 165	Introduction to sustainable development	Core	1
PPS 183	India and the world	Core	2
PPS 134	Industrial development and sustainability	Core	2
PPS 135	Energy policy and sustainable development	Core	2
PPS 153	Governance and law	Core	2
PPS 136	Challenges of a digital economy	Core	2
PPS 137	Policy Lab-I	Core	2

PPS 127	Sustainable consumption and production	Core	2

Semester 2
Minimum credit requirements – 18
Core courses – 18 (all 9 courses)

Course No.	Course title	Type	Number of credits
PPS 138	Policy lab II	Core	2
PPS 198	Public management : Issues and challenges with special reference to India	Core	2
PPS 191	Assessing public policy : methods and Measurements	Core	2
PPS 192	Major policy issues : Education, health and infrastructure in India	Core	2
PPS 193	Policy perspectives on water	Core	2
PPS 194	Public policy processes and institutions	Core	2
PPS 195	Communities and conservation	Core	2
PPS 196	Sustainable Urbanization	Core	2
PPS 197	Agriculture and rural development	Core	2

Semester 3
Minimum credit requirements – 4

Course No.	Course title	Type	Number of credits
PPS 107A	Summer project	Core	2
PPS 107	International exposure	Core	2

Semester 4
Minimum credit requirements – 27

Course No.	Course title	Type	Number of credits
PPS 100	Major project	Core	27

For students who opt for Post graduate Diploma in Public Policy and Sustainable Development

Students who enroll for the PG diploma in Public Policy & Sustainable Development will need to complete the following requirements:-

(These requirements will also hold for students who have enrolled for the MA (Public Policy & Sustainable Development) and who exercise an option of exiting the programme after completing the course work and the summer project/minor project. Such students will be awarded PG Diploma in Public Policy and Sustainable Development).

(i) Completion of a minimum of 40 earned credits, which must contain

a. 35 credits in core courses,

b. a 4 credit summer semester at Universities abroad/Minor project in lieu of the foreign visit,

c. at least 4 elective course credits.

(ii) A student must obtain a minimum CGPA of 6 to be eligible for the award of the PG Diploma (PP&SD).

This is only an indicative list; the actual list is more comprehensive with credible organizations that have engaged our students in research, development and implementation profiles.

Eligibility Criteria

DoPT sponsored Government candidates

The programme is open to officers of All India Services, Central Services (organized & non-organized, technical & non-technical), faculty members of State Administrative Training Institutes and also officers of the State Civil Services (SCS) & Non-State Civil Services (Non-SCS) subject to the following eligibility conditions:

Length of service :

Officers should have completed 5 years of Group 'A' service as on commencement of the programme

Age:

The officers should have at least three years remaining service after completion of the programme

Earlier Training:

The officers should not have undergone a training Programme of 12 weeks or more duration in India during a period of 5 years preceding the date of commencement of this programme. Further the officer should not have undergone a Programme of training abroad of more than 2-weeks in preceding 2-years, more than one month in preceding 3-years or more than six months in the preceding 5-years.

Other Candidates:

Graduates with a minimum experience of five years in any of the following sectors: government, regulatory bodies, industry, research/academic institutions, NGOs and donor/consultant organizations.

Selection Process

DoPT sponsored Government Candidates: Selection of potential participants from the civil services consists of two stages. In the first, applications will be screened by the Department of Personnel and Training based on appropriate eligibility criteria as defined by the department. In the second stage, a selection committee constituted according to the rules of the TERI University (including a nominee of the Department of Personnel and Training), will interview the short-listed candidates. The committee will select up to 30 candidates. The list of the selected candidates will then be forwarded to the Department for processing as necessary.

Other Candidates: Applications will be screened, and the shortlisted candidates will be interviewed by the TERI University. The total number of candidates for the programme would not exceed 40 in any batch.

Pedagogical tools

Class lectures are combined with discussions, workshops and seminars, field-projects and presentations. The primacy is emphasized on the importance of analytical skills across both oral and written communication. The PPSD Programme follows a system of continuous assessment in terms of the curricular content assessed through the autonomous course-structures. In addition, the other learning factors like the classroom participation etc. will be assessed.

Duration

One year of coursework on campus (for the PG Diploma Programme)

- Two weeks at a foreign university
- Two weeks at a National/regional level NGOs
- One-year major project at a place of work (for obtaining Master degree)
- Those who opt to be on campus in the second year can attend additional courses

III. M Sc Climate Science & Policy)

Science has established the existence of climate change as well as related anthropogenic activity as the leading cause. In this context, the need is to understand the science, the implications on various regions, resources, societies, and to study ways of mitigating the impacts as well as further emissions of GHGs. Role of policies and measures are equally important. Therefore, TERI School of Advanced Studies offers a programme leading to the award of M Sc in Climate Science and Policy. This is an intensive four-semester programme intended to imbue scientific and policy issues relevant to climate change. With this MSc Climate Science and Policy students will be equipped to take up job functions associated with local, national and international efforts to deal with climate change, one of the biggest environmental problems of this era. The subject is so topical and need of the time– national action plan and Paris agreement on climate change driving action and policy formulation, businesses framing agendas keeping Climate change in focus; energy policies geared towards sustainable Energy use, state action plans being formulated, co-benefits and emissions reductions being internalized in energy planning decisions.

Programme Overview

Climate change is likely to be one of the most challenging issues mankind will face in the 21st century. To involve and educate larger number of people in this area, and to provide professionals with an improved understanding of the subject, the MSc (Climate Science and Policy) programme aims to impart knowledge on mitigation and adaptation strategies. The Programme, offered by the Department of Energy and Environment, intends to create professional capability in assessing and managing the risks posed by climate change, and provide a sound base in the scientific arena as well as in the economic dimensions of climate change policy, mitigation, and adaptation strategies. Delivered through a diverse range of courses in the two years of study, the Master's degree will also provide a structured route to research and development in the area.

Programme outline

Year	Courses	Credits	Duration*
First year			
1st semester	8 core courses of 1-3 credits each	21	15 weeks
2nd semester	4 core courses and minimum 2 electives of 3 credits each	17	15 weeks
Summer	Minor project	2	8 weeks
Second year			
3rd semester	Minimum 4 electives of 3-4 credits each	15	15 weeks
4th semester	Major project	15	At the location of the project

* Does not include mid and end-semester breaks and evaluation schedules (based on major and minor tests and assignments)

Course details – M Sc (Climate Science and Policy)

Semester 1

Core = 21 (minimum credits required = 22)

Course No.	Course title	Type	No of Credits
NRE 155	Environmental law and policy	Core	3
NRC 113	Applied mathematics	Core	0 (Audit)
NRC 131	Basics of climate science	Core	3
NRC 143	Basics of economics	Core	0 (Audit)
NRC 103	Basic computer programming	Core	0 (Audit)
NRC 185	Impacts of climate change	Core	2
NRC 105	Concepts and theories of development	Core	3
NRC 107	Climate lab	Core	2
NRC 183	Energy: science, technology and policy	Core	2
NRC 136	Earth system sciences	Core	3
NRE 111	Environmental statistics	Core	3
NRE 101	Technical Writing (Communication skills and technical writing)	Core	0 (Audit)

Semester 2

Core = 4 / Elective = 6 (minimum credits required = 17)

Course No.	Course title	Type	No of Credits
NRC 132	Mitigation of climate change	Core	3
NRC 135	Climate change vulnerability and adaptation	Core	3
NRE 172	Principles of geoinformatics	Core	3
NRE 173	Research methodology and thesis writing	Core	2
NRC 139	Climate change and public health	Elective	3
MPL 134	Climate change and law	Elective	2
NRC 122	Introduction to climate modelling	Elective	3
NRC 142	Spatio temporal data analysis	Elective	3
NRC 138	Climate change and water	Elective	3

Semester 3

Core – 1/ Elective 4 = (minimum credits required = 15)

Course No.	Course title	Type	No of Credits
NRE 102	Seminar course in global change	Core	3
NRC 162	Climate change and disaster risk reduction	Elective	3
NRC 184	Renewable energy technologies	Elective	3
NRC 172	Advance climate modelling	Elective	3
MPD 122	Public health and development issues and methods	Elective	3
BSI 125	Accounting and finance for sustainability	Elective	3
NRE 168	Food security and agriculture	Elective	3
NRE 148	Governance and climate change	Elective	3
NRE 105	Independent study	Elective	3

NRC 145	Economics of climate change	Elective	3
NRE 103	Minor project	Elective	2
NRC 133	Aerosol Science	Elective	3
NRE 136	Glacier Hydrology	Elective	3
NRE 178	Satellite Meteorology	Elective	3
NRC 173	Geoinformatics for natural resources management	Elective	3
NRC 186	Energy system modelling	Elective	3

Semester 4

Course No.	Course title	Type	No of Credits
NRE 104	Major project	Core	15

Eligibility criteria

A Bachelor's degree in Science/Engineering/Economics/Mathematics/Statistics/ Geology/ Geography with a minimum cumulative grade point average of 6.2 on a 10 point scale or equivalent, as determined by TERI SAS, wherever letter grades are awarded, or 55% marks in aggregate, wherever marks are awarded. For candidates with bachelor's degree in Humanities (e.g. Economics/Geography), a relaxation of 5%/0.75 Cumulative Grade Point Average could be allowed.

Selection process

Admissions will be based on the basis of marks scored in the qualifying degree, online test and interview conducted by the University.
The online test will be one-hour long and will consist of one paper with 100 multiple-choice questions. The questions will be divided into three sections:

- * Proficiency in English
- * Analytical Reasoning
- * Mathematics

Wrong answers will invite negative marking. This would be followed by an interview.

Pedagogical Tools

Apart from usual lectures and practical, the program prepares students to connect and apply their classroom learning to society. Field visits, role playing and experiential learning is part of the curriculum. Discussion on the recent development in the arena of climate change between the teacher and a small group of students occurs on a regular and frequent basis.

Sponsored Candidates

Candidates working in the Industry / Government / Development Organizations are encouraged to apply for the full-time Masters programme. All those who satisfy the minimum qualifications as mentioned above for each programme may be admitted to the programme after an interview.

These candidates are required to submit, at the time of interview, a sponsorship certificate from their employer on a proper letterhead, NOC stating that for the period of his/her study at the University, the candidate will be treated as on duty with usual salary and allowances and that he/she will be fully relieved for the period of study for pursuing his/her studies. Sponsored candidate's application will be accepted only from those on the pay rolls of & sponsored by a registered company. Such applications would need to be accompanied by the audited balance sheet of the company and last year's income tax return of the applicant indicating the salary received from the company.

Placements: In past students have got opportunities in the following places after getting selected through the selection process of the concerned company/organization.

The students who complete MSc Climate Science and Policy programme possess the requisite confidence and skills to work as research officers, climate consultant and policy analysts in both public and private organizations. Besides this, opportunities in Research organizations and doctoral research can also be explored. The University has a Placement Cell that helps students find suitable organizations to do their minor and major projects as well as get final placement.

Some of the organizations where the students have been placed in the past are given below:

* Shakti Sustainable Energy Foundation

• Institute of Rural Management Anand (IRMA)

• International Council for Local Environmental Initiatives (ICLEI)

• Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH (GIZ)

• Federation of Indian Chambers of Commerce and Industry (FICCI)

• Vasudha Foundation

* KBS Certification Services Pvt. Ltd

• Indian Institute of Science (IISC)

• National Institute of Oceanography (NIO)

• Development Alternatives

• Department of Climate Change, Government of Gujarat

• Think Through Consulting

• CTran Consulting

• Ernst & young

IV. M Sc (Environmental Studies and Resource Management)

There is an urgent need for efficient utilization and management of resources to ensure sustainable development. Such efforts require a deeper understanding of the

development process, the driving factors and the interlinkages within the system. The M.Sc. ESRM lays foundation for the students from diverse backgrounds to understand the interdisciplinarity of environmental and resources management and learn various tools and techniques. The programme is designed to build a cadre of professionals who are equipped with the knowledge and skillsets to deal with scientific and policy aspects related to environment and resource management. The theoretical concepts acquired through classroom session and seminars are complemented by the exposure to the real-world scenarios through various field visits during the two years programme. Students also get opportunities to be part of ongoing research projects in the university and enhance their knowledge. This unique degree programme fosters young professionals towards innovative and independent career goals.

Programme Outline

Year	Courses	Credits	Duration*
First year 1st semester	8 core courses of 1-3 credits each	21	15 weeks
2nd semester	4 core courses and minimum 2 electives of 3 credits each	17	15 weeks
Summer	Minor project	2	8 weeks
Second year			
3rd semester	Minimum 4 electives of 3-4 credits each	15	15 weeks
4th semester	Major project	15	At the location of the project

*Does not include mid and end-semester breaks and evaluation schedules (based on major and minor tests and assignments)

Course

Semester 1

Core = 21 (minimum credits required = 21)

Course No.	Course title	Type	No of Credits
NRE 121	Ecology	Core	3
NRE 131	Environmental Chemistry and microbiology	Core	3
NRE 113	Applied mathematics	Core	3 (Audit)
NRE 165	Introduction to sustainable development	Core	1
NRE 138	Environmental monitoring laboratory	Core	3
NRE 139	Environmental geosciences	Core	3
NRE 111	Environmental statistics	Core	3
NRE 155	Environmental law and policy	Core	3
NRE 101	Technical Writing (Communication skills and technical writing)	Core	2

Semester 2

Core = 11 / Elective = 6 (minimum credits required = 17)

Course No.	Course title	Type	No of Credits
NRE 142	Water quality management	Core	3
NRE 173	Research methodology and thesis writing	Core	2
NRE 189	Solid and hazardous waste management	Core	3
NRE 134	Air quality management	Core	3
NRE 123	Biodiversity assessment and conservation	Elective	3
NRE 162	Hydrology	Elective	3
NRE 172	Principles of geoinformatics	Elective	3
NRE 141	Basic course in environmental and resource economics	Elective	3
NRE 144	Environment health and risk assessment	Elective	3

Semester 3

Elective 15 = (minimum credits required = 15)

Course No.	Course title	Type	No of Credits
NRE 103	Minor project	Core	2
NRE 163	Groundwater hydrology and management	Elective	3
NRE 168	Food security and agriculture	Elective	3
NRE 145	Integrated impact assessment	Elective	4
NRE 147	Environmental economics	Elective	3
NRE 171	Environmental modelling	Elective	4
NRE 149	Governance and management of natural resources	Elective	3
NRE 105	Independent study	Elective	3
NRE 112	Multivariate data analysis	Elective	3
NRE 175	Geoinformatics for resource management	Elective	4
NRE 151	Wildlife conservation and management	Elective	3
NRE 129	Industrial ecology	Elective	3
NRC 133	Aerosol Science	Elective	3
NRE 167	Integrated Watershed Management	Elective	3
NRE 136	Glacier Hydrology	Elective	3
NRE 174	Water and Wastewater Treatment Processes and Design	Elective	4
NRE 102	Seminar Course in Global Change	Elective	3
NRC 162	Climate change & disaster risk reduction	Elective	3

Semester 4

Course No.	Course title	Type	No of Credits
NRE 104	Major project	Core	15

Eligibility Criteria

A Bachelor's degree in Science/Engineering/Economics/Mathematics/Statistics/Geology/ Geography with a minimum cumulative grade point average of 6.75 on a 10 point scale or equivalent, as determined by TERI SAS, wherever letter grades are awarded, or 60% marks in aggregate, wherever marks are awarded. For candidates with bachelor's degree in Humanities (e.g. Economics/Geography), a relaxation of 5%/0.75 Cumulative Grade Point Average could be allowed.

Selection process

Admissions will be based on the basis of marks scored in the qualifying degree, online test and interview conducted by the University.
The online test will be one-hour long and will consist of one paper with 100 multiple-choice questions. The questions will be divided into three sections:

- * Proficiency in English
- * Analytical Reasoning
- * Mathematics

Wrong answers will invite negative marking. This would be followed by an interview.

Pedagogical Tools

The learner centric pedagogy comprises of classroom lectures enriched by case studies, field visits, term papers, assignment and tutorials, guest lectures by practitioners and experts, seminars and discussion forums.

Sponsored Candidates

Candidates working in the Industry / Government / Development Organizations are encouraged to apply for the full-time Masters programme. All those who satisfy the minimum qualifications as mentioned above for each programme may be admitted to the programme after an interview.

These candidates are required to submit, at the time of interview, a sponsorship certificate from their employer on a proper letterhead, NOC stating that for the period of his/her study at the University, the candidate will be treated as on duty with usual salary and allowances and that he/she will be fully relieved for the period of study for pursuing his/her studies. Sponsored candidate's application will be accepted only from those on the pay rolls of & sponsored by a registered company. Such applications would need to be accompanied by the audited balance sheet of the company and last year's income tax return of the applicant indicating the salary received from the company.

Placement: In past students have got opportunities in the following places after getting selected through the selection process of the concerned company/organization.

The students who complete MSc ESRM programme possess the requisite confidence and skills to work as efficient environmental researchers, project managers and policy planners in both public and private organizations. It will also be a structured route to doctoral research work. The University has a Placement Cell that helps students find suitable organizations to do their minor and major projects as well as final placement.

Some of the organizations where the students have been placed in the past are given below:

United Nations Development Programme (UNDP)

• World Wide Fund (WWF)

• Shakti Sustainable Energy Foundation

• Emergent Ventures

• Deutsche Gesellschaft für Internationalev Zusammenarbeit GmbH (GIZ)

• Ashoka Trust for Research in Ecology and the Environment (ATREE)

* Ernst &Young

• HCL Foundation

• HCL Technologies

• IL&FS

• IORA Ecology

• International Water Management Institute (IWMI)

• National Institute of Hydrology (NIH)

• Tata Trust

V. M Sc (Economics)

The pressure on the non-human component of the ecosystem that we witness today can largely be attributed to the intensified pursuit of material consumption by a growing mass of population in the post-war period. Environment and Resource Economics attempts to recognize, understand, analyse, and evaluate the nature-society exchanges towards their implication on human well-being. Towards addressing this, it aims to design and implement effective policy instruments that assist in sustaining a given quality of life on earth and its enhancement over a longer time horizon. The MSc (Economics) at the TERI SAS is a two year programme targeted at students who are interested to specialize in this field. It involves rigorous grounding in standard economic theory and techniques and a simultaneous exposure to a wide variety of economic challenges due to the ecological / environmental / natural resource constraints. All students are expected to demonstrate their understanding and aptitude in this field through a scrupulously supervised Master's thesis.

Why M Sc Economics

* Balanced exposure - to theoretical and empirical methods

* Unique specialization - economics of environment

* emphasis on developing analytical and writing skills

* Masters thesis: closely supervised hands-on opportunity to apply concepts, and theories to heal world

* Basket of assessment - Book review, critical review, literature review, open book examinations, presentations, research papers, research proposal, written examination

Programme outline

Year	Courses	Credits	Duration*
First year			
1st semester	4 core courses of 4 credits	16	15 weeks
2nd semester	4 core courses of 4 credits each	16	15 weeks
Second year			
3rd semester	3 core course of 4 credits each + electives courses of 8 credit	20	15 weeks
4th semester	Master's Thesis	20	15 weeks

Course details

Semester 1
Core – 5
Minimum Credit Requirement- 16

Course no	Course Title	Type	No of Credits
MPE 115	Probability and Statistics	Core	4
MPE 113	Mathematical Methods for Economics	Core	4
MPE 121	Macroeconomics	Core	4
MPE 131	Microeconomics	Core	4

Semester 2
Core – 4
Minimum Credit Requirement- 16

Course no	Course Title	Type	No of Credits
MPE 185	Environment and Economic Development	Core	4
MPE 182	Growth Economics	Core	4
MPE 184	Development Economics	Core	4
MPE 172	Econometrics	Core	4

Semester 3
Core-3
Electives-8 Credits
Minimum Credit Requirement- 20

Course no	Course Title	Type	No of Credits
MPE 176	Methods of research in Economics	Core	4
MPE 152	Environmental Economics	Core	4
MPE 153	Natural resource Economics	Core	4
MPE 124	Advanced Econometrics	Elective	4
MPE 154	Economics of health and environment	Elective	4
MPE 122	Indian agricultural development: Contemporary issues	Elective	4
MPE 178	Time series and regression analysis	Elective	4
MPE 193	Trade, development and environment	Elective	4

Semester 4
Core - 20.
Minimum Credit Requirement- 20

Course no	Course Title	Type	No of Credits
MPE 108	Masters thesis	Core	20

Eligibility Criteria

B.A. (Hons.) / B.Sc. (Hons.) in Economics with 50 % or more marks in aggregate. (CGPA of 5.65)

OR

Bachelor degree in any other discipline with at least 60% marks in aggregate (CGPA of 6.75). The applicant must have studied mathematics either at 10+2 level or at Bachelor's level, either as subsidiary or as honours.

Selection process

Admission to the M Sc Economics programmes is made on the basis of an online test, subject specific written test and interview conducted by the University. Applications are invited from the candidates by advertising the programmes in some leading newspapers every year.

The questions will be divided into three sections:

- * Proficiency in English
- * Analytical reasoning
- * Quantitative ability

Wrong answers would invite negative marking. This would be followed by subject specific written test and interview for short-listed candidates.

Pedagogical tools

The choice of pedagogical tools will be based on the principles of 'active learning based on robust conceptual understanding'. These will comprise classroom lectures, case studies, field visits, term papers, assignments and tutorials, guest lectures by policy makers and experts, seminars and discussion forums, and role play

Sponsored candidates

Candidates working in the Industry / Government / Development Organizations are encouraged to apply for the full-time Masters programme. All those who satisfy the minimum qualifications as mentioned above for each programme may be admitted to the programme after an interview.

These candidates are required to submit, at the time of interview, a sponsorship certificate from their employer on a proper letterhead, NOC stating that for the period of his/her study at the University, the candidate will be treated as on duty with usual salary and allowances and that he/she will be fully relieved for the period of study for pursuing his/her studies. Sponsored candidate's application will be accepted only from those on the pay rolls of & sponsored by a registered company. Such applications would need to be accompanied by the audited balance sheet of the company and last year's income tax return of the applicant indicating the salary received from the company.

Placements: In past students have got opportunities in the following places after getting selected through the selection process of the concerned company/organization.

Desirous students are provided with placement assistance. Students have obtained placements Indian Statistical Institute, Reserve Bank Of India, Ministry of Finance, KPMG, Boston International, Development Alternatives, NCAER, International Labour Organisation, Greenpeace India, NIPFP, India Infrastructure among others. Some students have also opted for higher studies in academic institutions like Centre for Development Studies, Delhi School of Economics, Jawaharlal Nehru University, Vanderbilt University, University of California Riverside, Yale University, John Hopkins University, and University of Warwick among others.

VI. M Sc (Plant Biotechnology)

Programme Overview

The MSc programme in Plant Biotechnology was initiated in 2008. It was formulated with the objective of advancing education and research in the area of plant biotechnology with adequate attention to regulatory frameworks. The programme offers conceptual understanding by imparting cutting-edge disciplines of science along with a preliminary exposure to regulatory issues and ethical concerns related to plant biotechnology. Emphasis is laid on training in applied mathematics, statistics, and computational skills in view of the projected demand for a trained cadre adept at approaching biological problems in truly interdisciplinary and integrative manner. Courses have been specifically structured to impart concepts pertaining to advanced areas of research in plant genomics and contemporary approaches employed by molecular biologists. Therefore, a graduate of this programme can be expected to have both specialized knowledge and practical experience required to address contemporary problems in both academic and industrial settings.

Background

Biotechnology is arguably the most revolutionary and promising field of modern science. The term 'Biotechnology' encompasses practices ranging from selective breeding to advanced techniques, such as recombinant DNA technology. Our society is immensely impacted by various applications of biotechnology in contexts as varied as health care, crop improvement, conservation of biological diversity, and abatement of environmental problems. Moreover, the socio-economic implication of this science needs to be analysed in a spirit of objectivity informed by a sound knowledge base, and relevant information should be disseminated in a free and transparent manner.

The MSc. programme in Plant Biotechnology seeks to provide education and training, empower students with technical skill-set, create capacities and build career opportunities in three key domains of biotechnology namely: research and development, science education policy, regulations and management. With its rigorous hands-on training in both laboratory-based methods, bioinformatics tools for biological research and constantly updated interdisciplinary curricula; the programme is expected to build rewarding careers in both public and private organizations for the graduate students.

Highlights

* Students have qualified NET and won highly competitive national-level fellowships from DBT, CSIR, ICAR, UGC for pursuing research.

• Former MSc students are pursuing doctoral programmes in acclaimed international universities and research organizations (ICRISAT, Mexico; The John Innes Centre, Norwich, UK).
• Students have won awards for summer research fellowships by the Indian National Science Academies (INSA).

• Some of the former MSc students are placed as research scholars in prestigious institutions, such as Indian Institutes of Technology (IITs); International Centre for Genetic Engineering and Biotechnology (ICGEB), New Delhi; Institute of Genomics and Integrative Biology (IGIB), New Delhi; Translational Health Science and Technology Institute (THSTI), Gurgaon; National Centre for Biological Sciences (NCBS), Bangalore; Jawaharlal Nehru Centre for Advanced Scientific Research (JNCSAR), Bangalore; and University of Tennessee, Knoxville, USA.

Programme outline.

Year	Courses	Credits	Duration *
First year 1st semester	6 core courses of 2-7 credits and 2 core Audit courses	21	15 weeks
2nd semester	7 core courses of 2-7 credits each	25	15 weeks
Second year			
3rd semester	6 core courses of 1-7 credits	22	15 weeks
4th semester	Major project	24	At the location of the project

* Does not include mid and end-semester breaks and evaluation schedules (based on major and minor tests and assignments)

Course details

Semester 1
Core Courses - 9
Minimum Credit Requirement : 22

Course No.	Course title	Type	Number of credits
BBP 121	Plant biotechnology and crop improvement	Core	3
BBP 155	Principles of genetic engineering and re-comibnant DNA technology	Core	3
BBP 101	Plant biotechnology laboratory - Part 1	Core	7
BBP 158	Conceptual foundations of molecular biology	Core	2
BBP 154	Concepts in biochemistry	Core	3
BBP 111	Bioanalytical techniques	Core	3
NRE 101	Technical Writing (Communication skills and technical writing)	Core	2 (Compulsory Audit)
NRE 113	Applied mathematics	Core	3 (Compulsory Audit)

Semester 2
Core Courses - 7
Minimum Credit Requirement : 25

Course No.	Course title	Type	Number of credits
BBP 102	Plant Biotechnology Laboratory – Part 2	Core	7
BBP 130	Immunochemistry	Core	3
BBP 150	Molecular markers and breeding	Core	4
BBP 112	Statistics for the life sciences	Core	3

BBP 156	Molecular plant physiology and metabolism	Core	3
BBP 114	Molecular cell biology - from genes to communities	Core	3
BBP 174	Bioinformatics and computational biology - Part I	Core	2

Semester 3
Core Courses - 6
Minimum -Credit Requirement : 22

Course No.	Course title	Type	Number of credits
BBP 173	Bioinformatics and computational biology	Core	3
BBP 171	Bioethics and Public Awareness	Core	1
BBP 103	Plant biotechnology laboratory - Part 3	Core	7
BBP 141	Plant biotechnology management and regulatory issues	Core	4
BBP 143	Genomics and molecular genetics	Core	4
NRE 112	Multivariate data analysis	Core	3

Semester 4
Minimum Credit Requirement : 24

Course No.	Course title	Type	Number of credits
BBP 104	Major project	Core	24

Eligibility Criteria

A Bachelor’s degree in Sciences/Engineering/Technology.

Selection process

Admissions will be based on the basis of marks scored in the qualifying degree, online test and interview conducted by the University.
The online test will be one-hour long and will consist of one paper with 100 multiple-choice questions. The questions will be divided into three sections:

- * Proficiency in English
- * Analytical Reasoning
- * Mathematics

Wrong answers will invite negative marking. This would be followed by an interview.

Pedagogical Tools

The classroom lectures are complemented with extensive laboratory practicals, case studies, classroom discussions, and guest lectures by experts. During the fourth semester, students are involved in full-time research for their major project.

Sponsored candidates

Candidates working in the Industry / Government / Development Organizations are encouraged to apply for the full-time Masters programme. All those who satisfy the minimum qualifications as mentioned above for each programme may be admitted to the programme after an interview.

These candidates are required to submit, at the time of interview, a sponsorship certificate from their employer on a proper letterhead, NOC stating that for the period of his/her study at the University, the candidate will be treated as on duty with usual salary and allowances and that he/she will be fully relieved for the period of study for pursuing his/her studies. Sponsored candidate's application will be accepted only from those on the pay rolls of & sponsored by a registered company. Such applications would need to be accompanied by the audited balance sheet of the company and last year's income tax return of the applicant indicating the salary received from the company.

Placements: In past students have got opportunities in the following places after getting selected through the selection process of the concerned company/organization.

A placement cell has been formed for exploring placement opportunities for students. The University facilitates placement of students in industry and suitable organizations, both for major project and final placements.

Previous Employers, Biotech Companies, and Organizations for Internship

CIMMYT, Mexico; John Innes Centre, Norwich, UK; University of Tennessee, USA; CIMAP, Lucknow; NBRI, Lucknow; IITs (Delhi, Mumbai, Kharagpur, Kanpur, and Roorkee); Central Bureau of Investigation, Government of India, Delhi; National Institute of Plant and Genetic Resources, Government of India, Delhi; International Centre for Genetic Engineering and Biotechnology, Delhi; International Rice Research Institute, Manila, Philippines; ICRISAT, Patancheru; National Institute for Research in Reproductive Health, Mumbai; National Institute for Immunology, Delhi; Centre for Cellular and Molecular Biology, Hyderabad; Institute of Genomics and Integrative Biology, Delhi; Defense Research & Development Organization, Delhi; Jawaharlal Nehru University, Delhi; University of Delhi, Delhi; Delhi Technological University, Delhi; Lakshmikumaran and Sridharan Attorneys, Delhi; Lal, Lahiri and Malhotra, Delhi; Uttam Group of Institutions, Uttar Pradesh; Ingenious E-Brain Solutions, Gurgaon; TERI, Delhi; Department of Forest and Wildlife, Government of NCT of Delhi, Delhi; All India Institute of Medical Sciences, Delhi; Innodata India Pvt. Ltd.; Translation Health Science & Technical Institute, Faridabad; YJ Trivedi & Co, Ahmedabad; Department of Biotechnology Effectual Services; University of Hawaii; Texas Tech University, USA.

VII. M Sc (Geoinformatics)

Programme overview

Spatial and non-spatial datasets are crucial for studies on environmental and sustainable development planning. Also, the emerging need of geo-spatial technology has created an unprecedented demand of trained manpower, who can contribute to production and analysis of these datasets. In order to fulfil the need of such trained professionals, the MSc in Geoinformatics offers training in cutting-edge technology, which has the potential of providing consistent and timely information required for natural resource management. The Programme, offered by the Department of Natural Resources, is intended to educate students and professionals about Remote sensing/Geographical information system/Global Navigation Satellite System and spatial modelling techniques. It also offers elective courses that help students in understanding the interdisciplinary applications of this leading technology. Students who complete this programme will possess the confidence and skills to attract a wide range of potential employers in both public and private organizations. This Master's degree provides a structured route to research and development in the area.

About Geoinformatics

The new millennium has brought access to vast, continuous, and well-calibrated stream of spatial data on natural and socio-economic systems dynamics. The availability of data is increasing at exponential rate through technological advances in space-based and field based earth observations. It allows monitoring and management of environmental processes across a wide range of spatial and temporal scales. Full exploitation of the potentialities requires integration of such datasets in the geo-enabled data processing, mining, analysis, assimilation, interpretation, and visualization environment. It has great social and national relevance and can support preparing sustainable development strategies, enabling enterprises to manage business processes efficiently and bring geographical knowledge to citizens. With time, we need a sound knowledge base in the state of art of Remote Sensing and GIS technology and their applications not just for bringing benefits of information system to country but also help in formulating efficient national development efforts in cross-cutting issues of environment, climate change, infrastructure development, and even in homeland security cooperation. Thus TERI SAS has been offering an MSc Geoinformatics since 2008 to enable budding professionals and researchers to address these pressing issues.

Programme outline

Year	Courses	Credits	Duration*
First year			
1st semester	6 core courses of 2-4 credits each	15	15 weeks
2nd semester	6 core courses of 2-4 credits each	19	15 weeks
Summer	Minor project	2	
Second year			
3rd semester	5 core and 1 elective courses of 3-4 credit each	19	15 weeks
4th semester	Major project	15	At the location of the project

* Does not include mid and end-semester breaks and evaluation schedules (based on major and minor tests and assignments)

Courses

Semester 1 Core Courses – 6 and 1 core audit course Minimum Credit requirement - 15			
Course Name	**Course Title**	**Type**	**Credits**
NRG 171	Principles of Cartography	Core	3
NRG 178	Principles of Remote sensing	Core	3
NRG 176	Principles of GIS and GNSS	Core	4
NRE 111	Environmental Statistics	Core	3
NRG 106	Fundamentals of Computers and Programming	Core	2
NRE 113	Applied Mathematics*	Core	3 (Audit)
NRE 101	Technical Writing (Communication skills and technical writing)	Core	2 (Compulsory Audit)
NRG 102	Fundamentals of Physics**	Core	2 (Audit)

*Required for only those students who do not have Maths at 10+2 level

** Required for only those students who do not have Physics at 10+2 level

Semester 2 Core Courses – 6 and 2 core Audit Courses Minimum Credit requirement - 19			
Course Name	**Course Title**	**Type**	**Credits**
NRG 170	Photogrammetry	Core	3
NRE 112	Multivariate Data Analysis	Core	3
NRG 174	Spatial Data Modelling and its applications	Core	4
NRG 172	Digital Image Processing and information extraction	Core	4
NRG 108	Programming in Geoinformatics	Core	3
NRG 162	Law and Policy for Maps and Remote sensing	Core	2
NRG 103	Project Management	Core	3 (Compulsory Audit)
NRE 173	Research methodology and thesis writing	Core	2 (Compulsory Audit)

Semester 3
Core Courses - 5 + Summer Internship 2 Credits
Elective – 1*

Minimum Credit requirement - 21

Course Name	Course Title	Type	Credits
NRG 181	Advances in Remote Sensing: Thermal, Hyperspectral, Microwave, LIDAR and UAV	Core	4
NRG 179	Advances in GIS and current trend	Core	4
NRG 164	Application of Geoinformatics for Land Resources	Core	3
NRG 165	Application of Geoinformatics for Water Resources	Core	3
NRG 166	Application of Geoinformatics for Atmosphere	Core	3
NRG 167	Geocomputation	Elective	3
NRG 107	Minor Project	Core	2

* Students can take the relevant electives from other departments in 3rd semester as well to satisfy the minimum credit requirement

Semester 4
Minimum Credit requirement - 15

Course Name	Course Title	Type	Credits
NRG 104	Major Project	Core	15

Eligibility Criteria

A Bachelor's degree in Science/Engineering/B. Arch/Economics/Mathematics/Statistics/ Geology/ Geography.

Selection process

Admissions will be based on the basis of marks scored in the qualifying degree, online test and interview conducted by the University.
The online test will be one-hour long and will consist of one paper with 100 multiple-choice questions. The questions will be divided into three sections:

- Proficiency in English
- Analytical Reasoning
- Mathematics

Wrong answers will invite negative marking. This would be followed by an interview.

Pedagogical Tools

The pedagogical tools comprise not just classroom lectures but also case studies, field visits, term papers, assignments and tutorials, guest lectures by practitioners and experts, seminars, and discussion forums. Group and individual projects involves analysis of diverse spatio-temporal datasets to demonstrate solution to specific issues of environment and social sciences.

Sponsored candidates

Candidates working in the Industry / Government / Development Organizations are encouraged to apply for the full-time Masters programme. All those who satisfy the minimum qualifications as mentioned above for each programme may be admitted to the programme after an interview.

These candidates are required to submit, at the time of interview, a sponsorship certificate from their employer on a proper letterhead, NOC stating that for the period of his/her study at the University, the candidate will be treated as on duty with usual salary and allowances and that he/she will be fully relieved for the period of study for pursuing his/her studies. Sponsored candidate's application will be accepted only from
those on the pay rolls of & sponsored by a registered company. Such applications would need to be accompanied by the audited balance sheet of the company and last year's income tax return of the applicant indicating the salary received from the company.

Placements: In past students have got opportunities in the following places after getting selected through the selection process of the concerned company/organization.

The students who complete MSc Geoinformatics possess the requisite confidence and skills to work as GIS engineers, geo-database managers, and remote sensing specialists in both public and private organizations. It will also be a structured route to doctoral research work. The Placement Cell of TERI SAS is committed to aid placement of its students. Some of the organizations where our past students are currently working are given below:

- Indian Space Research Organisation (ISRO)/ Regional Remote Sensing Centre (RRSC)
- ESRI India (NIIT GIS Ltd)
- RMSI
- WWF–India
- Development Alternatives
- Yale School of Environment and Forestry
- Indian Agricultural Statistics Research Institute (IASRI)
- Tata Consultancy Services
- Pitney Bowes India
- Digital Globe

VIII. M Sc (Water Science & Governance)

Programme overview

The complex and inter-disciplinary nature of water resources problems coupled with the multi-level governance frameworks adopted for managing water resources require that they are dealt in an integrated manner by trained professionals who can analyze the problem using a holistic and system-based approach. There are various national and international institutions that offer discipline-specific and interdisciplinary programmes at postgraduate level in water resources engineering. However all these programmes have a major focus either on the science and engineering or on socio-economic aspects of water resources. The science, engineering, technology, legal, governance, socio-economic and other cross-cutting issues are not addressed in a holistic manner. Thus, there is a scarcity of formally trained manpower that has a broader and inclusive perspective towards water related problems. This inadequacy presents a strong case to understand the intersection between science and engineering, societal needs, and legal and governance framework. The framework of the programme is in consonance with the spirit of UN international year of water cooperation promulgated by United Nations General Assembly in the year 2013 and priorities defined in India's National Water Mission that advocates for water cooperation in an interdisciplinary framework by bringing in cultural, educational and scientific factors, as well as religious, ethical, social, political, legal, institutional and economic dimensions.

The format of the entire programme has been kept flexible that provides a fresh graduate as well as the working professionals to upscale their qualifications. Thus, a graduate depending on their qualifying degree have an option to directly go for any Master's degree programme (M.Tech. or M.Sc.); or can opt for a Certificate course, which can be obtained by successfully completing all core courses offered in the first semester; or can obtain a postgraduate diploma by completing the first two semesters (one year). Finally, a student opting for Master's degrees have to complete the field work and research component which is spread over in the next two semesters (second year).

Programme outline

Year	Courses	Credits	Duration*
First year			
1st semester	10 courses Field Trip	30 1	15 weeks
2nd semester	8 courses Field Trip	22 1	15 weeks
Second year	(For M.Sc)		
3rd semester	1 core course+2 electives+Project 1	15	15 weeks
4th semester	Project 2	16	15 weeks

Courses

Semester 1 (minimum req. – 26)
Core – 9

Course No.	Course title	Type	Number of credits
WSW 103	Field trip 1	Core	1
NRE 111	Environmental statistics	Core	3
WSW 131	Hydraulics	Core	3
WSW 181	Water planning and management	Core	3
WSW 163	Gender, rights and equity perspective for sustainable water management	Core	3
WSW 143	Water resources - Institutions and governance	Core	3
WSW 172	Geoinformatics for water resources	Core	4
WSW 167	Applied hydrology and meteorology	Core	3
WSW 145	Water Quality monitoring methods and analysis	Core	3

Semester 2 (minimum req. – 23)
Core – 9

Course No.	Course title	Type	Number of credits
WSW 105	Field trip 2	Core	1
WSW 184	Water supply and sanitation	Core	3
WSW 164	Integrated watershed and river basin management	Core	3
WSW 124	Water audit and demand management	Core	3
WSW 136	Irrigation water and drainage management	Core	4
WSW 154	Aquatic eco-system management	Core	3
WSW 179	Qualitative research methods and technical writing	Core	3
WSW 147	Economic and financial evaluation of water infrastructure	Core	4

Semester 3 (minimum req. – 15)
1 core course, + 2 electives and Major project
Core – 2 (9 credit),
Elective – 3 (6 credit)

Course No.	Course title	Type	Number of credits
WSW 106	Project work report	Core	6
WSW 153	Water law	Core	3
WSW 182	Water security and conflict management	Core	2
NRE 163	Groundwater hydrology and management	Elective	3
WSW 132	Industrial pollution control	Elective	3
WSW 177	Social, economic and health dimensions of water, sanitation and hygiene	Elective	Audit

Semester 4 (minimum req. 16) (core – 16)

Course No.	Course title	Type	Number of credits
WSW 104	Project 2	Core	16

Eligibility Criteria

Graduate (B.Sc/B.A) or equivalent from any branch of Engineering, Environmental Science, Physics, Mathematics, Statistics, Chemistry, Geology, Atmospheric Science, Economics, Geography, Zoology, Botany, Anthropology, Agricultural Science.

Selection process

Admissions will be based on the basis of marks scored in the qualifying degree, online test and interview conducted by the University.
The online test will be one-hour long and will consist of one paper with 100 multiple-choice questions. The questions will be divided into three sections:

- Proficiency in English
- Analytical Reasoning
- Mathematics

Wrong answers will invite negative marking. This would be followed by an interview.

Pedagogical tools

The pedagogical tools consist of lectures, tutorials, practicals and industry/field visits. A number of experts from industry are invited to deliver lectures on special topics.

Sponsored candidates

Candidates working in the Industry / Government / Development Organizations are encouraged to apply for the full-time Masters programme. All those who satisfy the minimum qualifications as mentioned above for each programme may be admitted to the programme after an interview.

These candidates are required to submit, at the time of interview, a sponsorship certificate from their employer on a proper letterhead, NOC stating that for the period of his/her study at the University, the candidate will be treated as on duty with usual salary and allowances and that he/she will be fully relieved for the period of study for pursuing his/her studies. Sponsored candidate's application will be accepted only from those on the pay rolls of & sponsored by a registered company. Such applications would need to be accompanied by the audited balance sheet of the company and last year's income tax return of the applicant indicating the salary received from the company.

Placements

The water market is on the brink of change, and the push for greater water security and sustainability has increased over the past decade. Emerging markets are investing heavily in water sector and companies are realizing that sustainable water use is not only good for the environment - it's also good for their bottom line. The students of this programme are moulded and equipped to take up jobs in corporate houses, water industry, government departments, donor agencies, NGOs and research institutions, or join the band of entrepreneurs passionately working for the cause of water availability, affordability and accessibility. Thus, a student undergoing these programmes is sure to have a first mover advantage just as people who opted for learning computers in the early 90s had.

Career opportunities In Water Sector

The United Nations World Water Development Report, 2016, estimates that over one billion jobs - representing more than 40% of the world's total active workforce - are heavily water-dependent. Such jobs are found in agriculture, forestry, inland fisheries, mining and resource extraction, power generation, water supply, sanitation, manufacturing, and construction and transportation industries. The water management linked skills in India have traditionally been taught in institutions offering Civil Engineering and allied post-graduate programs where students are trained to view water predominantly from a technical lens. However, in the present scenario when water issues are multi-dimensional, employers need water professionals that have collective skill sets- technical, institutional, economic and social, to tackle the challenges in a holistic manner. The Department of Regional Water Studies at TERI SAS offers a multi-track program on Water Science and Governance which has a sound blend of theory and practical sessions. The format of the entire program is flexible and caters to fresh graduates as well as working professionals who desire to upgrade their skills/ qualifications. The taught courses focus on cross cutting issues of water resources and encompass science, engineering, legal, socio-economic and institutional dimensions. The programme is aimed for students from SAARC nations and Africa.

IX. M.Tech (Water Resources Engineering & Management)

Programme overview

The complex and inter-disciplinary nature of water resources problems coupled with the multi-level governance frameworks adopted for managing water resources require that they are dealt in an integrated manner by trained professionals who can analyze the problem using a holistic and system-based approach. There are various national and international institutions that offer discipline-specific and interdisciplinary programmes at postgraduate level in water resources engineering. However all these programmes have a major focus either on the science and engineering or on socio-economic aspects of water resources. The science, engineering, technology, legal, governance, socio-economic and other cross-cutting issues are not addressed in a holistic manner. Thus, there is a scarcity of formally trained manpower that has a broader and inclusive perspective towards water related problems. This inadequacy presents a strong case to understand the intersection between science and engineering, societal needs, and legal and governance framework. The framework of the programme is in consonance with the spirit of UN international year of water cooperation promulgated by United Nations General Assembly in the year 2013 and priorities defined in India's National Water Mission that advocates for water cooperation in an interdisciplinary framework by bringing in cultural, educational and scientific factors, as well as religious, ethical, social, political, legal, institutional and economic dimensions.

The format of the entire programme has been kept flexible that provides a fresh graduate as well as the working professionals to upscale their qualifications. Thus, a graduate depending on their qualifying degree have an option to directly go for any Master's degree programme (M.Tech. or M.Sc.); or can opt for a Certificate course, which can be obtained by successfully completing all core courses offered in the first semester; or can obtain a postgraduate diploma by completing the first two semesters (one year). Finally, a student opting for Master's degrees have to complete the field work and research component which is spread over in the next two semesters (second year).

Programme outline

Year	Courses	Credits	Duration*
First year			
1st semester	10 courses Field Trip	30 1	15 weeks
2nd semester	Field Trip 8 courses	1 26	15 weeks
Second year	(For M.Tech)		
3rd semester	1 core course+2 electives+Project 1	15	15 weeks
4th semester	Project 2	16	15 weeks

Courses

Semester 1 (minimum req. 27credits)
Core – 9

Course No.	Course Title	Type	Number of Credits
MEU 173	Stochastic modelling	Core	4
WSW 103	Field trip 1	Core	1
WSW 133	Advanced Hydraulics	Core	3
WSW 181	Water planning and management	Core	3

WSW 163	Gender, rights and equity perspective for sustainable water management	Core	3
WSW 143	Water resources - Institutions and governance	Core	3
WSW 172	Geo-informatics for water resources	Core	4
WSW 167	Applied hydrology and meteorology	Core	3
WSW 145	Water Quality monitoring methods and analysis	Core	3

Semester 2 (Minimum req. – 26 credits)
Core – 9

Course No.	Course title	Type	Number of credits
WSW 105	Field trip 2	Core	1
WSW 176	Water quality modelling and application	Core	4
WSW 136	Irrigation water and drainage management	Core	4
WSW 173	Optimization techniques for water management	Core	4
WSW 175	Geo-informatics for water resources	Core	3
WSW 186	Design of water supply and sanitation system	Core	4
WSW 179	Qualitative research methods and technical writing	Core	3
WSW 147	Economic and financial evaluation of water infrastructure	Core	4

Semester 3 (Minimum req. 15 credits)
1 core courses + 2 electives and Major project
Core – 2(9 credit),
Elective – 2(6 credit)

Course No.	Course title	Type	Number of credits
WSW 106	Project work report	Core	6
WSW 153	Water law	Core	3
NRE 163	Groundwater hydrology and management	Elective	3
WSW 132	Industrial pollution control	Elective	3
WSW 177	Social, economic and health dimensions of water, sanitation and hygiene	Elective	Audit

Semester 4 (minimum req. 16)
Core – 1

Course No.	Course title	Type	Number of credits
WSW 104	Project 2	Core	16

Eligibility Criteria

Graduate or equivalent from any branch of Engineering or Postgraduate or equivalent in Environmental Science, Physics, Mathematics, Statistics, Chemistry, Geology, Atmospheric Science, Economics, Geography, Agricultural Science with mathematics at 10+2 level.

Selection process

Admissions will be based on the basis of marks scored in the qualifying degree, online test and interview conducted by the University.

The online test will be one-hour long and will consist of one paper with 100 multiple-choice questions. The questions will be divided into three sections:

- * Proficiency in English
- * Analytical Reasoning
- * Mathematics

Wrong answers will invite negative marking. This would be followed by an interview.

Pedagogical tools

The pedagogical tools consist of lectures, tutorials, practicals and industry/field visits. A number of experts from industry are invited to deliver lectures on special topics.

Sponsored candidates

Candidates working in the Industry / Government / Development Organizations are encouraged to apply for the full-time Masters programme. All those who satisfy the minimum qualifications as mentioned above for each programme may be admitted to the programme after an interview.

These candidates are required to submit, at the time of interview, a sponsorship certificate from their employer on a proper letterhead, NOC stating that for the period of his/her study at the University, the candidate will be treated as on duty with usual salary and allowances and that he/she will be fully relieved for the period of study for pursuing his/her studies. Sponsored candidate's application will be accepted only from those on the pay rolls of & sponsored by a registered company. Such applications would need to be accompanied by the audited balance sheet of the company and last year's income tax return of the applicant indicating the salary received from the company.

Placements

The water market is on the brink of change, and the push for greater water security and sustainability has increased over the past decade. Emerging markets are investing heavily in water sector and companies are realizing that sustainable water use is not only good for the environment - it's also good for their bottom line. The students of this programme are moulded and equipped to take up jobs in corporate houses, water industry, government departments, donor agencies, NGOs and research institutions, or join the band of entrepreneurs passionately working for the cause of water availability, affordability and accessibility. Thus, a student undergoing these programmes is sure to have a first mover advantage just as people who opted for learning computers in the early 90s had.

Career opportunities In Water Sector

The United Nations World Water Development Report, 2016, estimates that over one billion jobs - representing more than 40% of the world's total active workforce - are heavily water-dependent. Such jobs are found in agriculture, forestry, inland fisheries, mining and resource extraction, power generation, water supply, sanitation, manufacturing, and construction and transportation industries. The water management linked skills in India have traditionally been taught in institutions offering Civil Engineering and allied post-graduate programs where students are trained to view water predominantly from a technical lens. However, in the present scenario when water issues are multi-dimensional, employers need water professionals that have collective skill sets- technical, institutional, economic and social, to tackle the challenges in a holistic manner. The Department of Regional Water Studies at TERI SAS offers a multi-track programon Water Science and Governance which has a sound blend of theory and practical sessions. The format of the entire program is flexible and caters to fresh graduates as well as working professionals who desire to upgrade their skills/ qualifications. The taught courses focus on cross cutting issues of water resources and encompass science, engineering, legal, socio-economic and institutional dimensions. The programme is aimed for students from SAARC nations and Africa.

X. M.Tech (Renewable Energy Engineering & Management)

Programme overview

With increasing energy crisis and global climate change issues, renewable energy has occupied a prominent position in industry and international relations in recent years. This has resulted in an increased demand for specialists and engineers in renewable energy with adequate knowledge of managing the renewable energy. There are very few institutions in India that offer structured programme to cover the diverse range of issues to meet this demand. The MTech (Renewable Energy Engineering and Management) programme at TERI SAS are intended to fill this gap and provide the much needed human resource capacity in renewable energy technology and management. The programme, offered by the Department of Energy and Environment, is designed to train students not only in renewable energy technology and implementation but also in equally important synergetic areas of energy infrastructure, energy economics, and energy conservation. The programme will lead to a specialization in Renewable Energy Engineering and Management.

Programme outline

Year	Courses	Credits	Duration*
First year			
1st semester	9 core courses	22	15 weeks
2nd semester	8 core courses + 2 electives	22	15 weeks
Summer	Minor Project	2	6 weeks
Second year			
3rd semester	2 core courses and 3 elective courses	15	15 weeks
4th semester	Major Project	16	15 weeks

Courses

Semester 1
10 core courses
Minimum credit requirements 22

Course No.	Course title	Type	Number of credits
ENR 122	Renewable energy resource characteristics	Core	4
NRE 101	Technical Writing (Communication skills and technical writing)	Core	2
ENR 135	Power system engineering	Core	3
ENR 185	Introduction to management techniques - I	Core	1
ENR 119	Fundamentals of thermal and electrical engineering	Core	2
ENR 189	Heat transfer	Core	4
ENR 112	Conventional energy and environmental implications	Core	2
ENR 111	Energy conservation and management	Core	2
ENR 101	Energy lab - I (Power system lab and heat transfer lab)	Core	2

Semester 2
8 core courses and 2 electives
Minimum credit requirements 22

Course No.	Course title	Type	Number of credits
ENR 157	Energy lab - II	Core	3
ENR 156	Renewable energy project management	Core	3
ENR 155	Optimization techniques for energy management and planning	Core	3
ENR 154	Renewable energy policy and regulations	Core	3
ENR 153	Biomass and other renewable technologies	Core	3
ENR 152	Wind, small hydro and RE hybrid systems	Core	2
ENR 151	Solar technologies	Core	4
ENR 103	Field visits / exposure to RE plants	Core	1
ENR 159	Applied numerical methods	Elective	3
ENR 158	Fluid mechanics and wind turbine models	Elective	3

Semester 3
2 core courses + Summer internship (core) and 3 electives
Minimum credit requirements 15

Course No.	Course title	Type	Number of credits
ENR 108	Summer internship	Core	2
ENR 107	Energy simulation laboratory	Core	3
ENR 165	Energy economics	Core	3
ENR 191	Smart grid	Elective	2
ENR 115	Building energy and green building	Elective	3
ENR 183	Introduction to management techniques - II	Elective	2
ENR 105	Independent study	Elective	3
ENR 187	Waste to energy	Elective	2
ENR 113	Wind power generation	Elective	3
ENR 116	Energy audit and management	Elective	3
ENR 147	Solar thermal power generation	Elective	3
ENR 145	Solar photovotaic power generation	Elective	3
ENR 143	Grid integration of renewable energy	Elective	3
ENR 163	Biofuels and decentralized energy systems	Elective	3

Semester 4

Course No.	Course title	Type	Number of credits
ENR 104	Major project	Core	16

Eligibility Criteria

A Bachelor's degree in any branch of engineering or MSc with a minimum cumulative grade point average of 6.2 on a 10 point scale or equivalent or 55% marks in aggregate

Selection Process

Admissions will be based on the basis of marks scored in the qualifying degree, online test and interview conducted by the University.
The online test will be one-hour long and will consist of one paper with 100 multiple-choice questions. The questions will be divided into three sections:

- Proficiency in English
- Analytical Reasoning
- Mathematics

Wrong answers will invite negative marking. This would be followed by an interview.

Pedagogical Tools

Pedagogical tools consist of lectures, tutorials, and practical. We also take students to industry/field visits along with demonstration/experiments on in-house solar roof top power plant. Trainings on relevant state-of-the-art software's are also part of the curriculum. A number of experts from industry are invited to deliver lectures on special topics.

Sponsored candidates

Candidates working in the Industry / Government / Development Organizations are encouraged to apply for the full-time Masters programme. All those who satisfy the minimum qualifications as mentioned above for each programme may be admitted to the programme after an interview.

These candidates are required to submit, at the time of interview, a sponsorship certificate from their employer on a proper letterhead, NOC stating that for the period of his/her study at the University, the candidate will be treated as on duty with usual salary and allowances and that he/she will be fully relieved for the period of study for pursuing his/her studies. Sponsored candidate's application will be accepted only from those on the pay rolls of & sponsored by a registered company. Such applications would need to be accompanied by the audited balance sheet of the company and last year's income tax return of the applicant indicating the salary received from the company.

Placements: In past students have got opportunities in the following places after getting selected through the selection process of the concerned company/organization.

After the completion of MTech (Renewable Energy Engineering and Management) programme, students gain enough confidence to work as a research professional, policy analyst, or technical solution provider in the field of renewable energy in both public and private sector organizations. The university has a fully functional placement cell that helps students find suitable organization as per their interest and specialization for their summer internship, major project, and final placement. Our potential recruiters have shown keen interest in hiring our students at different levels. Some of the organizations where the students have been successfully placed in the past are listed below:

- Suzlon Energy Limited
- Larsen & Toubro Power
- Idam Infrastructure
- GE (General Electric) Energy
- The Climate Group
- Shakti Sustainable Energy Foundation
- Emergent Ventures
- Faber Capital
- Infosys
- Tata Power
- Azure Power
- Inox Wind
- Enzen Global
- IT Power Consulting Private Limited

XI. M.Tech (Urban Development & Management)

Programme overview

India is projected to add 300 million new urban residents by the year 2050 to the already existing large base of 377 million urban residents. The management of such a great magnitude of population growth in urban areas is a challenge which comprises of a constant struggle of coping up with the crumbling urban infrastructure, deficiencies in urban services, financial woes at municipal level, governance issues and an unprecedented impact on environment. These complexities of urban growth and its management from the perspective of sustainable development requires a multidisciplinary approach and expertise. There is a severe shortage of professionals having the required technical and managerial skills for such tasks and their demand is increasing rapidly. In addition, the existing urban institutions and governance of cities require extensive capacity building to provide for urban development which is sustainable, equitable and enhances the live ability of urban residents. India has moved to the paradigm of smart cities where the government is investing vast amount of financial resources into the urban infrastructure which makes the need for skilled manpower much more pertinent. The MTech programme in Urban Development and Management (UDM) at the TERI SAS was launched in July 2013 with all the above-mentioned requirements in perspective. Therefore, the programme focuses on sustainable urban development with a distinctive multidisciplinary approach. It equips the students with cutting-edge technical skills like data modelling, managerial capabilities, and understanding of socio-economic, environmental, and legal issues associated with urban development and its three major components namely housing, infrastructure and environment. The uniqueness of the programme is in promoting learning through research-based teaching, engagement of practitioners, and a diverse pedagogy ranging from classroom teaching, tutorials, discussions about various case studies, and most importantly field work. Apart from classroom teaching the programme also exposes students to urban local bodies, parastatals and urban development consultants through two intensive internships. Overall the programme helps in building capacities for understanding the real-world urban development and management problems and identifying solutions for sustainable urban development.

Programme outline

Year	Courses	Credits	Duration*
First year 1st semester	8 core courses+ 1 audit	21	15 weeks
2nd semester	7 core courses	19	15 weeks
Second year			
3rd semester	12 credits from Major Project part 1 + 2 credits from 1 core course and 4 credits from 2 electives	18	15 weeks
4th semester	Major Project part 2	15	15 weeks

Courses

Semester 1 Core = 23 (minimum credits required = 23)

Course No.	Course title	Type	No of Credits
NRG 103	Project management	Core	3
MEU 143	Urban Governance	Core	3
MEU 171	Stochastic modelling	Core	4
MEU 161	Theories of Urbanisation	Core	3
MEU 163	Sustainable Provision and Management of Urban Services	Core	3
MEU 123	Urban Finance	Core	3
MEU 167	Urban Development Policies and Programmes	Core	3
NRE 101	Technical Writing (Communication skills and technical writing)	Core	2 (Audit)
MEU 175	Introduction to Geographic Information System	Core	1

Semester 2 Core = 16 (minimum credits required = 16)

Course No.	Course title	Type	No of Credits
MEU 121	Urban Ecology and Environment	Core	3
MEU 152	City and Regional Planning and Management	Core	3
MEU 172	Geoinformatics for Urban Development	Core	3
MEU 184	Real Estate Development	Core	3
MEU 154	Regeneration and City Competitiveness	Core	2
MEU 176	Research Methodology	Core	2

Semester 3 Core = 14 / Elective = 4 (minimum credits required = 18)

Course No.	Course title	Type	No of Credits
MEU 183	Urban systems modelling	Core	2
MEU 102	Major Project Part 1	Core	12
MEU 162	Urban Disaster Management and Climate Resilient Cities	Elective	2
MEU 112	Energy efficient buildings	Elective	2
MEU 144	Sustainable Urban Transport	Elective	2
MEU 168	Urban housing policy and practice	Elective	2

Semester 4

Course No.	Course title	Type	No of Credits
MEU 104	Major Project Part 2	Core	15

Eligibility Criteria

A Bachelor's degree B.E./B. Tech in any branch/discipline, B. Arch., B. Planning, OR Masters or equivalent degree in Science

Selection process

Admissions will be based on the basis of marks scored in the qualifying degree, online test and interview conducted by the University.
The online test will be one-hour long and will consist of one paper with 100 multiple-choice questions. The questions will be divided into three sections:

- Proficiency in English
- Analytical Reasoning
- Mathematics

Wrong answers will invite negative marking. This would be followed by an interview.

Pedagogical Tools

The choice of pedagogical tools is based on the principle of 'active learning based on strong conceptual understanding'. These tools comprise classroom lectures, case studies, field visits, term papers, assignments, tutorials, lectures by practitioners and experts, seminars and discussion forums, and engagement with institutions/agencies working in urban development and related areas. In particular, case studies drawn from real-world urban development and management challenges are designed and integrated into the curriculum.

Sponsored candidates

Candidates working in the Industry / Government / Development Organizations are encouraged to apply for the full-time Masters programme. All those who satisfy the minimum qualifications as mentioned above for each programme may be admitted to the programme after an interview.

These candidates are required to submit, at the time of interview, a sponsorship certificate from their employer on a proper letterhead, NOC stating that for the period of his/her study at the University, the candidate will be treated as on duty with usual salary and allowances and that he/she will be fully relieved for the period of study for pursuing his/her studies. Sponsored candidate's application will be accepted only from those on the pay rolls of & sponsored by a registered company. Such applications would need to be accompanied by the audited balance sheet of the company and last year's income tax return of the applicant indicating the salary received from the company.

Placements: In past students have got opportunities in the following places after getting selected through the selection process of the concerned company/organization.

A Placement Cell exists for exploring placement opportunities for students. The University facilitates placement of students in industry and suitable organizations, both for major projects and final placements.

Students undertake intensive internship with municipal corporations and parastatals and urban development consulting organizations. Some of the key recruiters are Housing and Urban Development Corporation Ltd (HUDCO), National Institute of Urban Affairs (NIUA), WRI, IIT Delhi, NIUA, IPE Global, Tata Trusts, Centre for Economic and Social Studies, Centre for Environment Education, Consortium for DEWATS Dissemination (CDD) Society, Five M Energy Private Limited, GEM Enviro Management Pvt. Ltd, ICLEI South Asia, Indo-German Energy Forum (IGEF)–Deutsche, Gesellschaft für Internationale Zusammenarbeit (GIZ), GmbH, Intercontinental Consultants and Technocrats Pvt. Ltd, IPE Global, KPMG, Mehta & Associates, Nagrika Policy Research Foundation, NK Buildcon, SaciWATERs, Simplex Infrastructures Ltd, TERI, and Urban Management Center.

XII. MBA (Business Sustainability)

Programme overview

Businesses across the globe are realizing the importance of integrating sustainability into business practices. It is evident that the future lies with those companies that integrate sustainability into their business practices. The MBA (Business Sustainability) intended for both, fresh graduates and mid-career professionals, is an effort to align leadership in both industry and the government to current contexts. In doing so, this programme seeks to enhance the scope and knowledge body of management education in India by imparting conventional management skills to students as also by helping them develop new perspectives related to the integration of sustainable and ethical practices into management education. This is not just an MBA programme; it's an MBA plus programme that combines conventional MBA curriculum with new sustainability challenges that have direct impact on a firm's future performance, financial and otherwise. The programme also leverages The Energy and Resources Institute's (TERI) knowledge capital in sustainable development to deepen the social and ethical consciousness of management education in India. The graduates of this programme will become competent business leaders with a holistic and long-term perspective for a world that demands new skills and attitude.

During the course, students get an experience of an industry competent curriculum which aims at helping businesses to bridge the gap. The courses, such as Principles and Concepts of Sustainability, Climate Change and Development, Sustainability Reporting and CSR, Sustainable Business Strategy, Business, and Society and Environmental Economics help students recognize the need, challenges, and ways to approach long-term viability of businesses through management and optimization of resources without compromising on profitability and competitiveness. The programme extends to two years (spread over four semesters) including a minor and major research project. The first year of the programme builds a foundation in traditional areas like general management, marketing, finance, and organizational behavior. The second year allows students to choose from a variety of electives to specialize in different management areas like finance, marketing and sustainability.

Programme outline

Year	Courses	Credits	Duration*
First year			
1st semester	9 core courses	23	15 weeks
2nd semester	9 core courses	21	15 weeks
2nd semester	Minor Project	6	
Second year			
3rd semester	5 core courses + 3 electives	15	15 weeks
4th semester	Major project	14	Around 15 weeks at location of the project

* Does not include mid and end-semester breaks and evaluation schedules (based on major and minor tests and assignments)

Courses

Semester 1
Core=10 (Credit Required=24)

Course Code	Course Title	Type	No. of Credits
MPP 163	Principles and concepts of sustainability	Core	2
PPM 157	Business ethics	Core	2
PPM 163	Sustainability Reporting	Core	2
PPM 145	Managerial economics	Core	3
PPM 159	Marketing management	Core	3
PPM 175	Fundamentals of Management	Core	2
BSI 101	Business communication	Core	3
BSI 175	Statistical methods for management	Core	3
PPM 128	Corporate accounting and reporting	Core	3

Semester 2
Core=9 (Credit Required=21)

Course Code	Course Title	Type	No. of Credits
PPM 146	Legal aspects of business	Core	2
MPP 173	Qualitative research methods in management	Core	2
PPM 139	Strategies for Sustainable Business	Core	3
BSI 122	Macroeconomic Environment	Core	3
PPM 122	Corporate Finance	Core	3
PPM 171	Management information system	Core	2
PPM 149	Advanced statistical methods for management	Core	2
PPM 114	Corporate Social Responsibility	Core	2
PPS 108	Organisational behavior and leadership	Core	2

Semester 3
Core=15 (Credit Required=21)
Elective=6

Course Code	Course Title	Type	No. of Credits
BSI 125	Accounting and finance for sustainability	Core	3
PPM 100	Minor Project	Core	6
PPM 199	Entrepreneurship	Core	2
PPM 138	Supply chain management	Core	2
PPM 112	Business, Natural Ecosystems and Community	Core	2
PPM 176	Health Finance	Elective	3
PPM 169	Corporate governance	Elective	2
PPS 127	Sustainable consumption and production	Elective	2
MPE 175	Techniques of environmental valuation	Elective	4
PPM 125	Financial intermediaries, institutions and regulations	Elective	2
NRE 145	Integrated impact assessment	Elective	4
PPM 123	Derivatives and risk management	Elective	2

PPM 191	International financial management	Elective	2
PPM 109	Business to business marketing	Elective	2
MEU 169	Urban Governance	Elective	4
NRE 133	Environmental management system	Elective	4
PPM 195	Brand management	Elective	2
PPM 126	Security analysis and portfolio management	Elective	2
PPM 187	Production and Operations Management	Elective	3
PPM 104	Consumer Behaviour	Elective	2
MPD 129	Project design and management for sustainable development practice	Elective	4
PPM 178	Social Entrepreneurship	Elective	2
PPM 179	Design Thinking	Elective	2
Semester 4 Core=1 (Credit Required=14)			
PPM 102	Major project	Core	14

Eligibility Criteria

- Bachelor's degree in any discipline with English at 10+2 level
- The candidate will be shortlisted based on CAT/MAT/GMAT/CMAT/XAT scores. Candidates who have not appeared for the above exams can take the TERI SAS common entrance test.
- Students can also apply based on CAT application.
- Candidates with more than 2 years of relevant work experience may be exempted from above requirement depending on the discretion of the selection committee.

Selection process

The candidates will be shortlisted based on CAT/GMAT/MAT/CMAT/XAT or TERI SAS entrance exam scores (Candidates with more than 2 years of relevant work experience may be exempted from this requirement), depending on the discretion of the selection committee. Selection from shorlisted candidates will be on the basis of group discussions and interviews conducted by the University at New Delhi.

Pedagogical tools

The pedagogy followed here consists of classroom lectures, field visits, term papers, assignments, tutorials, role plays, a large number of guest lectures, seminars, and discussion forums. In particular, case studies on sustainability issues are used.

Sponsored candidates

Candidates working in the Industry / Government / Development Organizations are encouraged to apply for the full-time Masters programme. All those who satisfy the minimum qualifications as mentioned above for each programme may be admitted to the programme after an interview.

These candidates are required to submit, at the time of interview, a sponsorship certificate from their employer on a proper letterhead, NOC stating that for the period of his/her study at the University, the candidate will be treated as on duty with usual salary and allowances and that he/she will be fully relieved for the period of study for pursuing his/her studies. Sponsored candidate's application will be accepted only from those on the pay rolls of & sponsored by a registered company. Such applications would need to be accompanied by the audited balance sheet of the company and last year's income tax return of the applicant indicating the salary received from the company.

Placements: In past students have got opportunities in the following places after getting selected through the selection process of the concerned company/organization.

The university has a dedicated placement cell, which is in constant touch with the industry and keeps students informed about the requirements and developments in different sectors regarding the available career opportunities. It facilitates that students are able to get appropriate career opportunities. Our students are already working in leading public sector and private sector organizations like:

- HPCL
- BPCL
- IOCL
- ONGC
- Oil India
- L&T
- India Energy Exchange
- Infosys
- Wipro
- TCS
- IPSOS
- CLAWS

XIII. MBA (Infrastructure)

Programme overview

The programme is based on a modular structure including a summer internship and a major project. In the first year, core courses on various aspects like strategy and risk, law and policy, finance and economics, and operations are taught. While the first two semesters comprise basic courses common for all the students, third semester is devoted to the specialized courses. In addition to these courses, students are required to complete a summer project of 6-8 weeks and a major project. These projects provide students an opportunity to put classroom learning into perspective by working in various companies in the Infrastructure sector.

Programme outline

Year	Courses	Credits	Duration*
First year			
1st semester	Module I - Basics of Infrastructure Business Module II - Law & Policy aspects of Infrastructure	20	8 weeks 8 weeks
2nd semester	Module I - Strategy and Risk Module II - Operational aspects of Infrastructure	20	8 weeks 8 weeks
Summer semester	Minor Project	6	
Second year			
3rd semester	5 core courses +3 electives	15	15 weeks
4th semester	Project	14	15 Weeks

* Does not include mid and end-semester breaks and evaluation schedules (based on major and minor tests and assignments)

Courses

Semester 1
Core=10 (Credit Required=20)

Course Code	Course Title	Type	No. of Credits
	Module 1 Basics of Infrastructure Business		
BSI 187	Introduction to Infrastructure Business	Core	2
BSI 124	Economics of Infrastructure and Pricing Strategies	Core	2
BSI 127	Infrastructure project finance	Core	2
BSI 128	Corporate Accounting and Reporting	Core	2
BSI 126	Corporate Finance	Core	2

BSI 175	Statistical methods for management	Core	3
Module 2 Law & Policy Framework for Infrastructure Business			
BSI 167	Legal & Regulatory aspects of infrastructure	Core	2
BSI 151	Business Laws and Infrastructure projects	Core	2
BSI 143	Contract Laws	Core	2
BSI 153	Environmental and Social Laws	Core	1

Semester 2

Core=10 (Credit Required=21)

Course Code	Course Title	Type	No. of Credits
	Module 1 Strategy and Risk		
BSI 157	Business Ethics	Core	1
BSI 183	Strategic planning	Core	2
BSI 185	Risk analysis and Implementation Management	Core	3
BSI 156	Project Planning and management	Core	2
BSI 181	Bidding System Management	Core	1
Module 2 Operational aspects of Infrastructure			
BSI 184	Quality Management	Core	2
BSI 171	Management information systems	Core	2
BSI 182	Infrastructure organization and HR	Core	3
BSI 138	Logistics and supply chain management	Core	2
BSI 122	Macroeconomic Environment	Core	3

Semester 3

Core=6(Credit Required=22)

Elective=7

Course Code	Course Title	Type	No. of Credits
BSI 102	Minor Project	Core	6
BSI 145	Integrated impact assessment	Core	3
BSI 189	Public Private Partnership	Core	2
PPM 177	Corporate governance	Core	2
BSI 132	Innovation and change management for infrastructure projects	Core	2
BSI 103	Strategic communication and stakeholder engagement	Core	2
BSI 155	Advanced Logistics and Supply Chain Management	Elective	2
BSI 125	Accounting and finance for sustainability	Elective	3
BSI 123	Financial intermediaries, institutions and markets	Elective	2
MEU 144	Sustainable Urban Transport	Elective	2
PPM 198	Entrepreneurship	Elective	2
BSI 173	Urban water supply and waste management	Elective	2
PPM 109	Business to business marketing	Elective	2

Semester 4
Core=1 (Credit Required=14)

Course Code	Course Title	Type	No. of Credits
PPM 102	Major project	Core	14

Eligibility Criteria

- Bachelor's degree in any discipline with English at 10+2 level
- The candidate will be shortlisted based on CAT/MAT/GMAT/CMAT/XAT scores. Candidates who have not appeared for the above exams can take the TERI University common entrance test.
- Candidates with more than 2 years of relevant work experience may be exempted from requirement (2) above depending on the discretion of the selection committee.

Selection process

The candidates will be shortlisted based on CAT/GMAT/MAT/CMAT/XAT or TERI SAS entrance exam scores (Candidates with more than 2 years of relevant work experience may be exempted from this requirement), depending on the discretion of the selection committee. Selection from shorlisted candidates will be on the basis of group discussions and interviews conducted by the University at New Delhi.

Pedagogical Tools

The choice of pedagogical tools is based on the principle of active learning contingent on strong conceptual understanding. These would comprise classroom lectures, case studies, field visits, term papers, assignments and tutorials, a large number of guest lectures by practitioners and experts, seminars and discussion forums, and role play. In particular, case studies, drawing from real-world management challenges, are designed and integrated into the curriculum. The faculty, along with professionals and development organizations are encouraged to collaborate in the preparation of case studies. These case studies, along with the field exposure planned and the Major Research Project, would provide relevant context to the curriculum in this programme.

Sponsored candidates

Candidates working in the Industry / Government / Development Organizations are encouraged to apply for the full-time Masters programme. All those who satisfy the minimum qualifications as mentioned above for each programme may be admitted to the programme after an interview.

These candidates are required to submit, at the time of interview, a sponsorship certificate from their employer on a proper letterhead, NOC stating that for the period of his/her study at the University, the candidate will be treated as on duty with usual salary and allowances and that he/she will be fully relieved for the period of study for pursuing his/her studies. Sponsored candidate's application will be accepted only from those on the pay rolls of & sponsored by a registered company. Such applications would need to be accompanied by the audited balance sheet of the company and last year's income tax return of the applicant indicating the salary received from the company

Placements: In past students have got opportunities in the following places after getting selected through the selection process of the concerned company/organization.

The TERI SAS has a dedicated placement cell, which keeps the students informed about different career opportunities. Our students are already working in leading public and private sector organizations, such as

- Hinudstan Petrolium
- ONGC
- India Energy Exchange
- TCS
- Bharat Petrolium
- Oil India Ltd.
- Infosys
- IPSOS
- Indian Oil
- L&T
- Wipro
- CLAWS

Prospects

- Focus on Developing Specific Skills in Strategy and Risk Management, Operational Aspects, Finance and Economics, Law and Policy etc.
- Training in understanding and managing multi-disciplinary challenges and sustainability impacts (social, economic, sector)
- Placement opportunities in niche areas like transport and logistics, operations management, project planning and implementation, supply chain management, IT infrastructure management etc.

There will be an option for the candidates to apply for specific modules of the programme also.

XIV. LLM Programme

Programme overview

Infrastructure laws and Environmental laws are two emerging fields in legal practice. There is a dearth of qualified legal professionals in both these fields. It is in this context that the TERI SAS offers a one-year LL.M. programme with specialization in Environment and Natural Resources Law and Infrastructure and Business Law.

Environment and Natural Resources Law

A developing country like India with a large population needs to protect the environment in its process of development. While development will remain a priority in India, the country cannot afford to ignore environmental concerns in the process of development. The environmental concerns need to be integrated into all economic policies and projects. A specialization in Environment and Natural Resources Law, therefore, assumes great significance. The primary focus of LL.M. specializing in Environment and Natural Resources Law stream is to understand how the legal framework can reorient economic activity towards sustainability. This reorientation can happen in different ways like prohibiting or regulating environmentally damaging activities, assigning liability for environmental harms, clearly defining property rights and providing adequate incentives for benign environmental activities. The course will also address the principles of allocation of natural resources according to the concepts of due process of law and equity. This specialization offers a broad range of introductory and specialized courses.

Infrastructure and Business Law

An adequate and robust infrastructure is necessary to promote and sustain economic development. India's infrastructure development is inadequate and there is a need for massive investment in different infrastructure sectors to meet the demands of economic growth. Infrastructure development will thus remain a priority of any

government of the day. However, given the fiscal constraints, the investment needs of infrastructure cannot be met by the public sector alone and would require private investment, both foreign and domestic. Attracting private investment will be feasible only if there is a conducive and predictable legal regime. LL.M. with specialization in Infrastructure and Business Law will address the policies and laws relating to major sectors, viz., transport (including railways and civil aviation), energy, telecommunications, urban infrastructure, and water. The purpose of this specialization stream is to provide an insight into the fundamental legal concepts relating to business in general and various infrastructure sectors in particular including the issues involved in the development, financing and management of projects. The programme will address issues relating to public–private partnerships in detail.

Why Study LL.M. at TERI SAS

An LL.M. degree prepares a candidate to become a teacher, researcher, litigating lawyer, or a corporate lawyer. An inter-disciplinary perspective is required at this level and the course curriculum and pedagogy offered by TERI SAS correspond to the needs of such an interdisciplinary learning. The programme draws strength from the Departments of Business Sustainability, Policy Studies, Regional Water Studies and Natural Resource. TERI SAS has been offering courses in law in various programmes over time. In addition, a number of short-term programmes in law have been successfully organized in the recent past. The research projects at TERI and TERI SAS have focused on legal issues in an interdisciplinary setting.

Programme outline

Year	Courses	Credits	Duration
First Year			
1st Semester	7 common courses	16	18 weeks
2nd Semester	2 common courses and 4 specialization based core courses and 2 electives	16	18 weeks

Courses

Semester 1 (minimum req. 16)
Core – 8

Course No.	Course title	Type	Number of credits
MPL 103	Dissertation	Core	2
MPL 101	Seminar/clinic on contemporary issues in infrastructure and environment - I	Core	Audit
MPL 173	Research methods and legal writing	Core	3
MPL 151	Comparative public law/systems of governance	Core	3
MPL 153	Law and justice in globalizing world	Core	3
MPL 141	Economic foundations of environmental and infrastructure law	Core	1
MPL 155	Environmental law and policy	Core	2
MPL 157	Infrastructure law and policy	Core	2

Semester 2 (minimum req. 16) 2 common courses and 4 specialization based core courses and 2 electives

Course No.	Course title	Type	Number of credits
MPL 104	Dissertation 2	Core	3
MPL 102	Seminar/clinic on contemporary issues in infrastructure and environment - II	Core	0
MPL 132	Water resources law	Elective	2
MPL 159	Energy law	Elective	2
MPL 165	Competition law and policy	Elective	2
Infrastructure Law			
MPL 148	Legal aspects of bidding and public private partnership	Core	2
MPL 146	Infrastructure project finance law	Core	2
MPL 144	Contracts Law and Management	Core	2
MPL 142	Business and taxation laws in infrastructure projects	Core	3
MPL 161	Telecommunication law	Elective	2
MPL 166	Urban Infrastructure Law and Management	Elective	2
MPL 163	Electricity law, reforms and practice	Elective	2
Environmental Law			

MPL 158	Forest law and policy	Core	2
MPL 156	Environmental Aspects of Business Activities	Core	2
MPL 154	Mining and mineral laws	Core	2
MPL 152	International environmental law	Core	3
MPL 182	Hazardous waste law	Elective	2
MPL 134	Climate change and law	Elective	2

Courses of special nature

Dissertation

Separate detailed guidelines are issued for Dissertation.

Eligibility Criteria

A candidate having an LL.B. / B.L. Degree from a recognized University / Institution.

TERI SAS also accepts CLAT 2020 PG scores for admitting students to its LL.M programme.

Selection process

Admission to the LLM programmes is made on the basis of an online test, subject specific written test and interview conducted by the University. Applications are invited from the candidates by advertising the programmes in some leading newspapers every year.

The questions will be divided into three sections:

- Proficiency in English
- Analytical reasoning
- Quantitative ability

Wrong answers would invite negative marking. This would be followed by subject specific written test and interview for short-listed candidates.

Pedagogical Tools

Pedagogical tools comprise not just classroom lectures but also case studies, role play, seminars, term papers, etc. Considerable emphasis will be placed on writing skills and team work. Guest lectures by eminent practitioners and industry experts would also be a part of the programme.

Sponsored candidates

Candidates working in the Industry / Government / Development Organizations are encouraged to apply for the full-time Masters programme. All those who satisfy the minimum qualifications as mentioned above for each programme may be admitted to the programme after an interview.

These candidates are required to submit, at the time of interview, a sponsorship certificate from their employer on a proper letterhead, NOC stating that for the period of his/her study at the University, the candidate will be treated as on duty with usual salary and allowances and that he/she will be fully relieved for the period of study for pursuing his/her studies. Sponsored candidate's application will be accepted only from those on the pay rolls of & sponsored by a registered company. Such applications would need to be accompanied by the audited balance sheet of the company and last year's income tax return of the applicant indicating the salary received from the company.

Placements

A placement cell has been formed that will be managed by students for placing the students in suitable positions.

Career Prospects

Infrastructure laws and environmental laws are two emerging and important fields in legal practice. An LL.M. with specialization in either of these fields would open up opportunities in litigation, corporate practice, teaching, and research.

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XV. Fees and payment details for Indian Candidates

MA (Sustainable Development Practice)

A. One-time payment (in rupees)

(includes admission fee, grade card, provisional certificate, student welfare fund, alumni fee, identity card, modernization fees, dissertation/thesis fee, Project fee, student activity fund)

Total – A	**10000**

B. Semester-wise fee (in rupees)

Other charges (includes registration/ enrolment, examination fee, internet and computer, accident insurance, social charges, development charges)

Tuition fees	50600
Other charges	12400
Field visit**	10000
Total – B	**73000**

C. Deposits (refundable) (in rupees)

Institute deposit	5000
Library deposit	5000
Total – C	**10000**

Total fee payable at the time of admission Rs **93,000/-**

Total fee payable in the second semesters Rs**. 78,000/-**

Total fees payable in third semester Rs. **78,000/-**

Total fees payable in fourth semester Rs. **63,000/-**

* Each student will be coved under an accident insurance policy for Rs. 2 lakh

** Field visit charges will be Rs 10,000/- in Semester I, and Rs. 15,000 in each of Semester II and Semester III.

Note: Tuition fee for sponsored candidates will be 1.5 times that for non-sponsored candidates.

MA (Public Policy and Sustainable Development)

A. One-time payment (in rupees)

(includes admission fee, grade card, provisional certificate, student welfare fund, alumni fee, identity card, modernization fees, dissertation/thesis fee, Project fee, student activity fund)

Total – A	**10000**

B. Semester-wise fee (in rupees)

Other charges (includes registration/ enrolment, examination fee, internet and computer, accident insurance, social charges, development charges)

Tuition fees	50600
Other charges	12400
Field Visit**	10000
Total – B	**73000**

C. Deposits (refundable) (in rupees)

Institute deposit	5000
Library deposit	5000
Total – C	**10000**

Total fee payable at the time of admission Rs **93,000/-**

Total fee payable in the second semesters Rs**. 83,000/-**

Total fees payable in third & fourth semesters Rs. **63,000/-**

* Each student will be coved under an accident insurance policy for Rs. 2 lakh

** Field visit charges of Rs 10,000/- is twice in second semester and not applicable in 3 & 4 semester

Note: Tuition fee for sponsored candidates will be 1.5 times that for non-sponsored candidates.

M Sc (Climate Science and Policy) (Environmental Studies and Resource Management) (Geoinformatics), M Sc (Plant Biotechnology), (Water Science & Governance), M Tech (Renewable Energy Engineering and Management), (Urban Development Management) and (Water Resources Engineering & Management) programmes

A. One-time payment (in rupees)

(includes admission fee, grade card, provisional certificate, student welfare fund, alumni fee, identity card, modernization fees, dissertation/thesis fee)

Total – A	**10000**

B. Semester-wise fee (in rupees)

Other charges (includes registration/ enrolment, examination fee, internet and computer, Lab fees, accident insurance, social charges, development charges)

Tuition fees	69575
Other charges	25425
Field visit**	10000
Total – B	**1,05,000**

C. Deposits (refundable) (in rupees)

Institute deposit	5000
Library deposit	5000
Total – C	**10000**

Total fee payable at the time of admission – Rs. **125,000/-**

Total fee payable in the second semester – Rs. **105,000/-**

Total fees payable in subsequent semesters - Rs. **95,000/-**

* Each student will be covered under an accident insurance policy for Rs 2 lakh

** Field visit charges of Rs. 10,000/- not applicable in 3 & 4 semesters

Note: Tuition fee for sponsored candidates will be 1.5 times that of non-sponsored candidates.

M Sc (Economics)

A. One-time payment (in Rupees)

(includes admission fee, grade card, provisional certificate, student welfare fund, alumni fee, identity card, modernization fees, dissertation/thesis fee)

Total – A	**10000**

B. Semester-wise fees (in rupees)

Other charges (includes registration/ enrolment, examination fee, internet and computer, accident insurance, social charges, development charges)

Tuition fees	65780
Other charges	13220
Field visit**	10000
Total – B	**89000**

C. Deposits (refundable) (in rupees)

Institute deposit	5000
Library deposit	5000
Total – C	**10000**

Total fee payable at the time of admission – Rs. **1,09,000/-**

Total fee payable in the second semester – Rs. **89,000/-**

Total fees payable in subsequent semesters - Rs. **79,000/-**

* Each student will be covered under an accident insurance policy for Rs 2 lakh

** Field visit charges of Rs. 10,000/- not applicable in 3 & 4 semesters

Note: Tuition fee for sponsored candidates will be 1.5 times that of non-sponsored candidates.

M B A (Infrastructure)

A. One-time payment (in rupees)

(includes admission fee, grade card, provisional certificate, student welfare fund, alumni fee, identity card, modernization fees, dissertation/thesis fee, Project fee, student activity fund)

Total – A	**25000**

B. Semester-wise fee (in rupees)

Other charges (includes registration/ enrolment, examination fee, internet and computer, accident insurance, social charges, development charges)

Tuition fees	231438
Other charges	13562
Field visit**	10000
Total – B	**255000**

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C. Deposits (refundable) (in rupees)

Institute deposit	5000
Library deposit	5000
Total – C	**10000**

Total fee payable at the time of admission – Rs. **2,90,000/-**

Total fee payable in the second semester – Rs. **2,55,000/-**

Total fees payable in subsequent semesters - Rs. **2,45,000/-**

* Each student will be coved under an accident insurance policy for Rs. 2 lakh

** Field visit charges of Rs. 10,000/- not applicable in 3 & 4 semesters

Note: Tuition fee for sponsored candidates will be 1.5 times that of non-sponsored candidates.

M B A (Business Sustainability)

A. One-time payment (in rupees)

(includes admission fee, grade card, provisional certificate, student welfare fund, alumni fee, identity card, modernization fees, dissertation/thesis fee, Project fee, student activity fund)

Total – A	**25000**

B. Semester-wise fee (in rupees)

Other charges (includes registration/ enrolment, examination fee, internet and computer, accident insurance, social charges, development charges)

Tuition fees	231438
Other charges	13562
Field visit**	10000
Total – B	**255000**

C. Deposits (refundable) (in rupees)

Institute deposit	5000
Library deposit	5000
Total – C	**10000**

Total fee payable at the time of admission – Rs. **2,90,000/-**

Total fee payable in the second semester – Rs. **2,55,000/-**

Total fees payable in subsequent semesters - Rs. **2,45,000/-**

* Each student will be coved under an accident insurance policy for Rs. 2 lakh

** Field visit charges of Rs. 10,000/- not applicable in 3 & 4 semesters

Note: Tuition fee for sponsored candidates will be 1.5 times that of non-sponsored candidates.

LLM Programme

A. One-time payment (in rupees)

(includes admission fee, grade card, provisional certificate, student welfare fund, alumni fee, identity card, modernization fees, dissertation/thesis fee, Project fee, student activity fund)

Total – A	**10000**

B. Semester-wise fee (in rupees)

Other charges (includes registration/ enrolment, examination fee, internet and computer, accident insurance, social charges, development charges)

Tuition fees	50600
Other charges	12400
Field visit**	10000
Total – B	**73000**

C. Deposits (refundable) (in rupees)

Institute deposit	5000
Library deposit	5000
Total – C	**10000**

Total fee payable at the time of admission Rs. **93,000/-**

Total fee payable in the second semester – Rs**. 63,000/-**

* Each student will be coved under an accident insurance policy for Rs. 2 lakh

** Not applicable in 2 semester

Note: Tuition fee for sponsored candidates will be 1.5 times that for non-sponsored candidates.

XVI. Fee and payment for Inetrnational candidates

Foreign students will be required to pay a fee as per the table below per semester.

Course	Tuition fees		Other charges	Total	Total
	US$	US$	INR	US$	US$
	Developing countries	Developed countries	Flat Rate	Developing Countries	Developed Countries
Ph D	500	1000	6210	615	1115
M Sc (CSP, ESRM, Eco)	2000	4000	8010	2148	4148
M Sc (Geo, PBT, WSG)	2000	4000	18010	2334	4334
MA (SDP)	1600	3200	17800	1930	3530
MA (PP&SD)	1600	3200	7800	1744	3344
M Tech (REEM, UDM), (WSG)	2000	4000	18010	2334	4334
MBA (Infra and BS)	5000	10000	7800	5144	10144
PG Diploma (WSG)	1000	2000	6210	2200	4200
LLM programme	1600	3200	7800	1750	3350
Advanced PG Diploma Renewable energy	1400	2800	--	2800	5600
Diploma in Renewable Energy	700	1400	--	700	1400
Certificate courses	400	800	--	400	800

In addition, a fee of INR 10,000 per semester cost for Field Training will be required to be paid in rupees.

Ph.D Programme details

TERI SAS offers Ph.D. on the following thematic areas

- Bioresources & Biotechnology
- Business Sustainability
- Energy & Environment
- Natural Resource Management
- Policy Studies
- Water Science & Governance
- Legal Studies

Eligibility Criteria

- M.Sc/M.A/M.Phil in a relevant field or equivalent.
- LL.M OR equivalent postgraduate degree in law for admission to Ph.D in Law.
- In extremely exceptional cases the admission committee may consider an application from a candidate who possess a B.Tech in a relevant field or equivalent. Only those who have a minimum CGPA of 8.0 on a 10 point scale or 75% marks should consider applying in this category. It may be noted that consideration under this category would be evaluated extremely strictly by an evaluation and admissions committee and admissions would only be in extremely exceptional cases, and would entail extended pre-Ph.D course work requirement.

Candidates (sponsored/non-sponsored) applying on part-time basis need to have a minimum work experience of 3 years in organizations approved by the department research committee.

Selection process

Admission will be made based on written tests and interview. A weightage of 70% to the written test and 30% to the performance in interview shall be given. Written test will have two papers of equal weightages (35% each). Paper I will be on 'Research Methodology' which will be a common paper for admission in all departments of the University. Paper II will be department/subject specific.

Requirements for Sponsored candidates

Additional requirements for full-time sponsored candidates
These requirements are additional to the regulations governing Ph.D. students

- Sponsored candidates are required to submit a sponsoring certificate from their employers on proper letterhead stating that for the period of his/her studies in the programme, the candidate would be treated as on duty with usual salary and allowances and that he/she will be fully relieved for the period of study for pursuing his/her study and the fee of the candidate will be paid by the sponsoring organization. Sponsored candidate?s application will be accepted only from those on the pay rolls of & sponsored by a registered company. Such applications would need to be accompanied by the audited balance sheet of the company and last year?s income tax return of the applicant indicating the salary received from the company.
- Candidates seeking admissions to Ph.D. programmes on the basis of study leave must show proof at the time of interview of the fact that they will be/have been granted study leave for a minimum period of three years.

Additional requirements for part-time (sponsored and non-sponsored) candidates
These requirements are additional to the regulations governing Ph.D students.

- Employed candidates working in organizations approved by the Department/Centre Research Committee with a minimum experience of three years are eligible to be considered for part-time (sponsored, non-sponsored) admissions.

- Sponsored candidates are required to submit a sponsoring certificate from their employers on proper letterhead stating that for the period of his/her studies and research work, the candidate would be treated as on duty with usual salary and allowances and that the fee of the candidate will be paid by the sponsoring organization. Sponsored candidate's application will be accepted only from those on the pay rolls of & sponsored by a registered company. Such applications would need to be accompanied by the audited balance sheet of the company and last year's income tax return of the applicant indicating the salary received from the company.
- Non-sponsored candidates are required to submit a "No Objection Certificate" at the time of interview from their employer stating that the candidate is permitted to pursue studies on a part-time basis and that:
    - (i) His/her official duties permit him/her to devote sufficient time for research;
    - (ii) The candidate shall be provided access to the facilities in the field of research; and
    - (iii) He/she shall be permitted to attend classes at the University as required by the University.
    - (d) Candidates seeking admission to a Ph.D. programme on the basis of study leave must show proof at the time of interview to the effect that they will be/have been granted study leave for a minimum period of two years.

Note: Part-time candidates will be required to attend all classes of the pre-Ph.D. programme.

These are scheduled between 8:30 am and 5:30 p.m. Attendance requirements are strictly followed.

I. Fee and Payment details for Ph.D Programme

Fee chargeable from the students (non-sponsored)

A. One-time payment (in Rupees)

(includes admission fee, grade card, provisional certificate, student welfare fund, alumni fee, identity card, modernization fees, dissertation/thesis fee)

Total – A	**10000**

B. Semester-wise fees (in rupees)

Other charges (includes registration/ enrolment, examination fee, internet and computer, accident insurance, social charges, development charges)

Tuition fees	15000
Other charges	8000
Total – B	**23000**

C. Deposits (refundable) (in rupees)

Institute deposit	5000
Library deposit	5000
Total – C	**10000**

Total fee payable at the time of admission – Rs. **43000/-**

* Each student will be covered under an accident insurance policy for Rs 2 lakh

Note: Tuition fee for sponsored candidates will be 1.5 times that of non-sponsored candidates.

Centre (s) for online test/interviews

Common online test is likely to be conducted at the following centres*.

Location of the centre	Centre code	Location of the centre	Centre code
New Delhi	001	**Jaipur**	011
Hyderabad	002	**Ranchi**	012
Vishakhapatnam	003	**Bangalore**	013
Guwahati	004	**Cochin**	014
Patna	005	**Bhopal**	015
Ahmedabad	006	**Chennai**	016
Mumbai	007	**Agra**	017
Pune	008	**Lucknow**	018
Bhubaneshwar	009	**Kolkata**	019
Chandigarh	010		

* Choice of centre is to be indicated in the application form. Centre's are likely to change depending on the number of students.

Centre (s) for interview

(a) Doctoral Programmes (Ph.D) - New Delhi

(b) M Sc. MA, --LLM interviews - New Delhi

(c) M.Tech interviews - New Delhi, Bangalore

(d) MBA Group discussions/interviews - New Delhi

Contact persons for Admission information

Programme	Name of the contact person	Emil ID	Contact no
MA (Sustainable Development & Practice)	Ms. Rebecca Anthony	rebecca.anthony@terisas.ac.in	8447473524
MA (Public Policy & Sustainable Development)	Mr. Vishal Kumar	vishal.kumar@terisas.ac.in	9650348393
M Sc (Climate Science & Policy)	Mr. Raj	raj@terisas.ac.in	9818056884
M Sc (Environmental Studies and Resource Management)	Mr. Raj	raj@terisas.ac.in	9818056884
M Sc (Economics)	Ms. Rebecca Anthony	rebecca.anthony@terisas.ac.in	8447473524
M Sc (Plant Biotechnology)	Ms. Vidhya Sharma	vidhya.sharma@terisas.ac.in	9899560312
M Sc Geoinformatics)	Ms. Vidhya Sharma	vidhya.sharma@terisas.ac.in	9899560312
M Sc (Water Science & Governance)	Mr. Piyush Jadhav	piyush.jadhav@terisas.ac.in	9999895377
M Tech (Water Resource Engineering & Management)	Mr. Piyush Jadhav	piyush.jadhav@terisas.ac.in	9999895377
M Tech (Renewable Energy Engineering & Management)	Mr. Sushil Kumar	sushil.kumar@terisas.ac.in	8826183736
M Tech (Urban Development & Management)	Mr. Raj	raj@terisas.ac.in	9818056884
MBA (Business Sustainability)	Ms. Jyoti Mehlawat	Jyoti.mehlawat@terisas.ac.in	9582244661
MBA (Infrastructure)	Ms. Jyoti Mehlawat	Jyoti.mehlawat@terisas.ac.in	9582244661
LLM	Mr. Piyush Jadhav	piyush.jadhav@terisas.ac.in	9999895377
Ph. D programmes	Mr. Devender Goswami	devinder.kumar@terisas.ac.in	9953053535
General Queries	Mr. V Ganesh	v.ganesh@terisas.ac.in	9999166196

Facilities at the Campus

Mentors

All master's students are assigned a faculty member to serve as an academic mentor during the students' stay at the TERI SAS. The mentor provides academic guidance and offers assistance on selection/scheduling of courses based on experience and career aspirations of the students. Personal problems may also be discussed with the mentor.

Library

The TERI School of Advanced Studies Library and its collections and services continue to grow and evolve. It delivers a number of electronic services and an ever-wider range of resources in order to support teaching, learning, and research. The Library continually seeks to identify key areas to add value and develop services that facilitate seamless access to e-resources. It exemplifies modern methods for creating, applying, and utilizing digital resources and services. The services are offered electronically through a web-enabled integrated digital information system. Electronic resources and services are centrally organized and available via a single-window access and also remote access on Knimbus platform . The collection of TERI SAS library includes books, e-books, CD-ROMs, DELNET, periodicals, online journals and databases like sciencedirect, Jstor, Capitaline Plus and Manupatra etc.

Besides its own library at the campus, the TERI School of Advanced Studies has access to the TERI library, which has emerged as a pioneering research library and information centre in South Asia on energy, environment, and sustainable development. The library is one of the largest repositories of information in South Asia and most modern in terms of service, infrastructure, and information technology applications.

Several information centres are also housed in the library. The collection includes over 21 000 books, 931 e-books, 5,000 bound volumes of periodicals, more than 1600 print and online journals and databases, 1556 CD-ROMs, and also miscellaneous items such as government documents, standards, and pamphlets. The entire library collection is indexed, searchable on the OPAC (Online Public Access Catalogue), and is bar coded.

The facilities offered by the library include, reprography, study carrels (clusters), and access to computers, Internet systems, multimedia system, and common user terminals for accessing the catalogue and databases.

Digital library initiatives have been launched for developing an electronic library that provides rich and structured content through online, remote, and continuous access to resources. It is a common gateway that provides free facility to browse and search various forms of digital publications.

TERI has also developed a comprehensive KM (knowledge management) system to organize all its knowledge sources centrally and provide a single-window access to researchers at their desktops for searching as well as updating.

Internet/email access

All students are allocated e-mail IDs within a few days of registration. Internet access is available in all Deemed University's computers located in the library. Students are discouraged from doing any personal work on the computers.

Clubs

The Deemed University has three active clubs (a) Eco-Club, (b) Media and Arts Club ,(c) Sports Club.

Photocopy and printing

Photocopy and printing facilities are available for students to use on a payment basis.

Medical room

Doctor is available in the campus on every Wednesdays from 1.15h to 2.15h in the Medical Inspection (MI) Room (hostel block). In case of medical emergency, vehicle is provided to ferry students to nearest hospital.

Councellor

A councellor is available for social/emotional councelling of students.

Cafeteria

The University has a well-stocked cafeteria, in the ground floor for the use by the students. A rate list (finalized in consultation with the canteen committee) is available for ready reference of the students.