



WATER SCIENCE and **POLICY**

Admissions 2018-19

SHIV NADAR UNIVERSITY

Centre for Public Affairs and Critical Theory
School of Humanities and Social Sciences

M.Sc.in Water Science and Policy

The Centre for Public Affairs and Critical Theory (C-PACT) at SNU is committed to research on a set of core themes: water, agriculture, health, land and heritage. A Masters Programme on Water Science and Policy is being launched by C-PACT, anchored in the School of Humanities and Social Sciences (SoHSS), as part its multi-disciplinary research on knowledge, governance and policy reforms on water. This will aim to be a first-of-its-kind programme globally. Few programmes across the world are able to incorporate the essential multi-disciplinary character of water. Fewer still deal with the urgent policy requirements of the sector. Our programme will seek to address both lacunae.

As the water crisis deepens by the day, the old 20th century solutions appear to be distinctly running out of steam. At the same time, there are new demands on water posed by rapid urbanisation and industrialisation. Conflicts over water, across uses, across town and country, and across industry and agriculture, have become more and more common. Addressing these new challenges requires a paradigm shift in water programs and policies. It also requires the creation of a large body of professionals with a 21st century understanding of water, its theoretical underpinnings and cutting edge solutions on the ground.

The main aim of the SNU Water Science and Policy Programme is to create a critical mass of water professionals with a historically and socially contextualised, multi-disciplinary perspective and understanding of water. These water professionals would guide development of sustainable and just 21st century policies, programmes and solutions to the growing water crisis.

FACULTY

The courses will be taught by faculty who have the best expertise and practical experience in the water sector, within India and globally. Ten core faculty members in C-PACT and SHSS, along with School of Engineering Sciences in SNU, as also select national and internationally reputed experts will teach the course, present seminars and engage with the pedagogic innovations that this course includes. The Guest Faculty members will become part of the research programmes within C-PACT, and will also support the supervision of select M.Sc. dissertations. Leading national and global academic organizations and policy-making forums will also teach specific parts of the course. These include:

- **Berkeley Water Centre, University of California, Berkeley**
- **UNESCO-IHE Institute for Water Education, Delft, Netherlands**
- **Centre for Water, Agroecology and Resilience, Coventry, UK**
- **DTU Nutech, Technical University of Denmark, Risø, Denmark**
- **ANU Crawford School of Public Policy, Canberra, Australia**
- **Stockholm Resilience Centre, Sweden**
- **Law, Environment and Development Centre, University of London**
- **ICIMOD, Kathmandu**
- **IIT Kanpur**
- **IIT Mumbai**
- **IIT Gandhinagar**
- **Indian Institute of Science, Bangalore**

- **National Institute of Hydrology, Roorkee**
- **Jawaharlal Nehru University, Delhi**
- **International Water Management Institute, Anand**
- **Water Resources Group 2030**
- **Central Ground Water Board**
- **Institute of Economic Growth, Delhi**
- **Azim Premji University, Bengaluru**
- **Madras Institute of Development Studies, Chennai**
- **Indian Institute of Science Education and Research, Bhopal**
- **Advanced Centre for Water Development and Management, Pune**
- **Development Support Centre, Ahmedabad**
- **Samaj Pragati Sahayog, Bagli**
- **Centre for Sustainable Agriculture, Hyderabad**
- **Shrishti Eco-Research Institute, Pune**
- **SOPPECOM, Pune**
- **Aga Khan Rural Support Program**

Core faculty in SNU:

Dr. Mihir Shah (Distinguished Professor, C-PACT)

Dr. Ajay Dandekar (Professor and Director, SoHSS and Director, C-PACT)

Dr. Rajeswari Raina (Professor, International Relations and Governance Studies, SoHSS)

Dr. Kaveri Gill (Associate Professor, International Relations and Governance Studies, SoHSS)

Dr. Sudeshna Guha (Associate Professor, History, SoHSS)

Dr. Girish Agrawal (Professor, Civil Engineering, School of Engineering Sciences)

Dr. Sailesh Behera (Assistant Professor, Civil Engineering, SoES)

Dr. Gopal Das Singhal (Assistant Professor, Civil Engineering, SoES)

Program Lead:

Deepa Hazrati (C-PACT, SNU)

COURSE WORK

Course work will be common for the M.Sc., the PG Diploma, and the Certificate programmes. They are designed in a modular format, each subject/theme covered in one module of four weeks.

Semester One:- Basic Concepts: Multi-disciplinary introduction to the water cycle, organised around rivers, aquifers, watersheds, lakes & wetlands, ecosystem services and the historical, social, legal and institutional aspects of water.

Semester Two:- Problems and Applications: A critical assessment of programs and policies on water in India since Independence, covering large dams, groundwater extraction, watershed development, flood management, drinking water and sanitation, urban and industrial water, legal & institutional aspects of water in India, water conflicts, climate change and SDGs.

Semester Three:- 21st Century Solutions in Water: Students will move into the field to learn how India's best water practitioners have evolved innovative, sustainable and equitable approaches to managing water across the country. Students will choose courses from a range of options, including traditional water harvesting & watershed management, participatory irrigation management, participatory groundwater management, rural drinking water & sanitation, sustainable non-chemical agriculture and water quality, nutrition & health.

Semester Four:-Dissertation: The dissertation will be a mandatory aspect of the two-year post-graduate programme. The dissertation will generally be field-based. The students can be hosted at one of the field partners who are a part of the faculty, or in other organizations. The thesis topic can be based on any of the concepts or problems covered in Semesters 1 and 2, or the themes studied in Semester 3.

The PG Diploma Program will be a one year program, with students completing 2 semesters of course work (Semesters 1 and 2 or Semesters 2 and 3 or Semester 1 and 3).

The Certificate Programs will include any one of the 8 modules offered in Semester 1 or 2 or any one of the 5 courses offered in Semester 3

COURSE REQUIREMENTS

The course work is intense and multi-disciplinary. Support will be available for students requesting additional reading or analytical skills in the physical, natural or social science components of the course work. All the programs are strictly residential including the One Month Certificate Courses.

In the first year in Semester 1 and 2, the M.Sc. and P G Diploma students will complete 16 core courses - 8 in the first semester and 8 in the second semester of 12 credits each (12 contact hours per week). In the second year, Semester 3 involving field immersion of 12 credits and Semester 4 completing the dissertation of 12 credits, are compulsory for all M.Sc. students.

The PG Diploma students will do Semester 3 if they have chosen the practical learning in the field, with contextualised courses on the evolution and implementation of particular interventions, technological and institutional innovations involved, and practical learning about the solution visible, including lessons on outreach and scalability of the intervention.

ACADEMIC LIFE IN SNU

All the M.Sc. and P G Diploma students will participate in C-PACT activities, supporting research in SoHSS and C-PACT, and any other School or Department that ignites an academic interest in them. The students will participate and help organize a wide range of intellectual activities, like academic seminars, exhibitions, on-going research projects, library, publication and other outreach activities. The students are encouraged to participate in all intellectual and performing arts and sports activities promoted in the University.

M.SC. IN WATER SCIENCE AND POLICY

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TOTAL 48 CREDITS (FOUR SEMESTERS OF 12+12+12+12)

SEMESTER 1: BASIC CONCEPTS [12 CREDITS]

SEMESTER 1: BASIC CONCEPTS [12 CREDITS]

Semester	Module	Course	Course Title	Weeks
1A	I	1	Water Cycle	4
		2	River Systems	
	II	3	Watersheds	4
		4	Aquifers	
1B	III	5	<u>Lakes and Wetlands</u>	4
		6	Water and Ecosystem Services	
	IV	7	Historical, Social, Institutional and Legal Dimensions I	4
		8	Historical, Social, Institutional and Legal Dimensions II	
			TOTAL	16

M.SC. IN WATER SCIENCE AND POLICY

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SEMESTER 2: PROBLEMS AND APPLICATIONS [12 CREDITS]

SEMESTER 2: PROBLEMS AND APPLICATIONS [12 CREDITS]

Semester	Module	Course	Course Title	Weeks
2A	V	1	Experience of Large Dams since independence I	4
		2	Experience of Large Dams since independence II	
	VI	3	India's Groundwater Resources and Problems I	4
		4	India's Groundwater Resources and Problems II	
2B	VII	5	Issues in India's Water Policy	4
		6	Discrimination, Exclusion and Conflict	
	VIII	7	Urban and Industrial Water	4
		8	Climate Change and SDGs	
			TOTAL	16

M.SC. IN WATER SCIENCE AND POLICY

SEMESTER 3: 21ST CENTURY SOLUTIONS IN WATER (FIELD-BASED) [12 CREDITS]

No	Course Title (choose any 4)	Sequential - Weeks
1	Watershed Management	4
2	Sustainable Groundwater Management	4
3	Participatory Irrigation Management	4
4	Sustainable Agriculture	4
5	Rural Drinking Water and Sanitation	4
	TOTAL	16

SEMESTER 4: DISSERTATION [12 CREDITS]

FEE STRUCTURE

Fees for the M.Sc. Program in WATER SCIENCE and POLICY (48 credits)

Fees Structure 2018 – 20 (in ₹)

	Item	Year 1	Year 2	Full Program
(1)	One time charges			
	Admission Fee (Non-refundable)	₹ 25,000		₹ 25,000
	Security Deposit (Refundable)	₹ 75,000		₹ 75,000
(2)	Recurring Charges			
	Tuition Fee	₹ 1,00,000	₹ 1,00,000	₹ 2,00,000
	Hostel Fee (Twin Sharing)	₹ 86,500	₹ 86,500	₹ 1,73,000
(3)	Total Charges (1)+(2)	₹ 2,86,500	₹ 1,86,500	₹ 4,73,000
(4)	Financial Assistance			
	Tuition Fee Waiver 75%	₹ 75,000	₹ 75,000	₹ 1,50,000
(5)	Net Payable (3)-(4)	₹ 2,11,500	₹ 1,11,500	₹ 3,23,000
(5)A	Cost Excl. Security Deposit	₹ 1,36,500	₹ 1,11,500	₹ 2,48,000

FEE STRUCTURE

Fees for the M.Sc. Programme

Note:

1. Tuition Fee Waiver is for 4 semesters only.
2. Failure to maintain a CGPA of 7.00 at the end of second semester will result in loss of tuition fee waiver for the rest of the program (i.e. 3rd and 4th Semesters). Tuition fee waiver once lost, can never be restored.
3. Tuition Fee Waiver not applicable for Sponsored Candidates
4. All charges are payable at the beginning of the Academic Year as per schedule announced separately.
5. The program requires all the students to spend 4 months in the 3rd Semester on fieldwork. The University has tie ups with competent organizations across India. These organizations have requisite technical and practical competencies and they will facilitate the field trip. The living expenses during field trip will be borne by the student. The field expenses are expected to be under Rs 80,000 per person but it may vary as per the actual expenses made by the students..
6. The use of mess and laundry services from the University authorized vendor is mandatory for all students. Advances for Mess and Laundry are Rs 21,500 and Rs 2,250 per semester, respectively. Any change in these charges are communicated by Dean-Student Welfare. Food and Laundry Charges not applicable for 3rd semester.
7. Security deposit is refunded on Graduation after deduction of any recoveries.
8. This program is strictly residential.

Scholarships:

All M.Sc candidates get 75% tuition fee waiver (refer to point 2 mentioned above). In addition to that ten scholarships are likely to be available for deserving candidates.

FEE STRUCTURE

Fees for P.G. Diploma in WATER SCIENCE and POLICY (24 credits)

For all the courses listed in SEMESTERS 1 and 2 or SEMESTERS 2 and 3 or SEMESTERS 1 and 3

(All the charges and fees applicable for the First Year of the MSc program will apply to PG Diploma, whether the candidates apply for Semesters 1 and 2, Semesters 2 and 3 or Semesters 1 and 3)

Fees Structure 2018 – 19 (in ₹)

	Item	Full Program
(1)	One time charges	
	Admission Fee (Non-refundable)	₹ 25,000
	Security Deposit (Refundable)	₹ 75,000
(2)	Recurring Charges	
	Tuition Fee	₹ 1,00,000
	Hostel Fee (Twin Sharing)	₹ 86,500
(3)	Total Charges (1)+(2)	₹ 2,86,500
(4)	Financial Assistance	
	Tuition Fee Waiver 75%	₹ 75,000
(5)	Net Payable (3)-(4)	₹ 2,11,500
(5A)	Cost Excl. Security Deposit	₹ 1,36,500

Note:

1. Tuition Fee Waiver is for 2 semesters only
2. Tuition Fee Waiver not applicable for Sponsored Candidates
3. All charges are payable at the beginning of the program as per schedule announced separately
4. The use of mess and laundry services from the University authorized vendor is mandatory for all students. Advances for Mess and Laundry are Rs 21,500 and Rs 2,250 per semester, respectively. Any change in these charges are communicated by Dean-Student Welfare.
5. Security deposit is refunded on Graduation after deduction of any recoveries.
6. This programs is strictly residential.

FEE STRUCTURE

Fees for One Month Certificate Program in WATER SCIENCE and POLICY

Fees Plan 1: Fees for Certificate program is Rs 61,360 (Rs 52,000 + 18 % GST for a Module.

Under Plan 1: Accommodation will be provided at the Visitors Hostel (Guest House) in single AC room with attached toilet

Fees Plan 2: Fees for the Certificate program is Rs 41,300 (Rs35,000 + 18 % GST) for a Module.

Under Plan 2: Accommodation will be provided at the Students Hostel in twin sharing room with common toilet.

Note:

1. Each Certification program will run for 4 weeks, starting on Monday and ending on Friday.
2. Food and Laundry charges to be paid separately, on actual basis.
3. This program is strictly residential.

APPLICATION GUIDELINES

C-PACT and SoHSS invite applications for the M.Sc and PG Diploma courses starting August 2018. **The application form may be accessed and filled and submitted online (please visit <http://cpact.snu.edu.in>).**

Candidates MUST specify whether their application is for the M.Sc., PG Diploma or Certificate Program.

Applicants for the Diploma course must specify the semester for which they are applying.

ELIGIBILITY

The SNU Water Science and Policy program is open to candidates within India and abroad.

For the M.Sc., PG Diploma and the Certificate Program, the minimum qualification required is a B.Sc/ BA /B.Tech. or equivalent under-graduate degree.

SELECTION PROCESS

After the screening of applications, based on the minimum qualifications, and the application materials (see below), all eligible candidates will be invited to an interview to be held in SNU campus in **July 9-10, 2018**.

International candidates will be interviewed over skype.

Please note that not all candidates meeting the minimum eligibility criteria may be shortlisted. Candidates may also note that the University reserves the right to accept or reject any application based on its departmental screening criteria, hence all application may not be shortlisted for the interview. Therefore, no requests for refund of the application fee shall be entertained whether or not the candidates are called for the interview.

APPLICATION INSTRUCTIONS

All interested applicant shall apply online. Please follow the instructions carefully

M.Sc. and PG Diploma:

- Fill all the mandatory fields
- Choose one option – the M.Sc. Program **OR** the PG Diploma Programm

Online upload of the following documents is required:

- Passport size color photograph
- Current CV
- All Mark sheets/Degree Certificates (10th Standard onwards)
- Standardized Examination certificate- CSIR, UGC, GATE etc. (If applicable)
- A Statement of Purpose (1500 words maximum)– stating why you are interested in this Program, your strengths as a student for this multi-disciplinary program, what you expect to gain from it it and your future career plans.

The application fee should be paid online. Please note that the application is not deemed complete until the all the necessary documents are uploaded and the application fee is paid.

APPLICATION INSTRUCTIONS

The Last date for receiving applications for M.Sc. and PG Diploma is June 30, 2018.

The Last date for depositing fees is July 18, 2018

Selected candidates will be interviewed on July 9-10, 2018

**For further queries please write to the Program Lead - Ms. Deepa Hazrati - waterprog@snu.edu.in
or visit <http://cpact.snu.edu.in>**

PAYMENT OF FEES

M.Sc., PG Diploma applicants will be required to pay a non-refundable application fees of Rs. 1,200 (One Thousand Two Hundred Only) by credit or debit card or through bank transfer or through demand draft to Shiv Nadar University.

Payment of Fees: The following options for payment are available to you. Please login to the Pre-registration application with your Email ID and Password. After acceptance of the offer you can make the payment of fees using the following four modes by:

1. Deposit Via **RTGS/NEFT** (Any Bank).
2. **Demand Draft** in person- full amount through a Single Demand Draft with your, Name, Program written and application ID at the back to be deposited to the University finance officer in person (Library block, basement). Please ensure the Demand Draft is:
a) In favor of Shiv Nadar University; b) Payable at Noida/Delhi at par and of the exact amount.

3. **Online payment:** Using this option, payment can be made directly through net-banking/credit/debit card to:

SHIV NADAR UNIVERSITY

Account Number: 00881450000424

Complete Contact Address: Village Chithera, Tehsil Dadri, District Gautam Budh Nagar, U.P.- 203207, India

Telephone No: 0120-4382113, 9891000723

E.Mail: vagarwal@hcl.com

Bank Name: HDFC Bank Ltd.

SWIFT CODE: HDFCINBB

KEY SPECIFIC OUTCOMES

M.Sc. IN WATER SCIENCE AND POLICY

Water professionals with multidisciplinary knowledge and skills; these professionals will possess perspectives derived from international experiences blended with the unique national water context

P.G. DIPLOMA IN WATER SCIENCE AND POLICY

Human resource (developed or improved) with exposure to concepts, issues and solutions, ready to effectively contribute inputs to the water sector through their work in government, civil society or industry

CERTIFICATE IN WATER SCIENCE AND POLICY

Specialisation in thematic areas, leading to improved capacity and engagement with policy, programs and communities.

WATER SCIENCE and **POLICY**

M.Sc. Program (2 years)

P G Diploma Program (1 year)

Certificate Program (1 Month)



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