OUR MISSION

Shiv Nadar University is a leading global university engaged in inter- and multi-disciplinary research. Our mission is to

1. Empower individuals and communities to realize and exercise universal freedoms through the acquisition and application of knowledge;

2. Dedicate ourselves to the discovery, development, organization, preservation, dissemination and application of knowledge in a wide range of fields of study;

3. Achieve excellence in teaching, research and service to expand the scope of human understanding and contribute to the betterment of the world;

and

4. Serve the higher education needs of India and the global community.

In fulfilling our mission we will:

1. Develop and educate the leaders of tomorrow dedicated to service who can shoulder the globally responsible and ethical leadership burdens of the 21st Century;

2. Support research, scholarly and creative endeavours that contribute to the creation of new knowledge at the leading frontiers of a specialized area and at the overlapping intersection of diverse disciplines;

and

3. Create research and teaching programs that tackle the most pressing problems of the state, the country and the global community.
OBJECTIVES OF UNDERGRADUATE EDUCATION AT SNU

SNU offers an undergraduate curriculum that is unique and unprecedented in India. The curriculum requires all students to take courses in a range of subjects, while also specializing in a subject of their choosing: a combination of disciplinary depth and multidisciplinary breadth. Undergraduates at the University will gain an understanding of a range of topics in diverse disciplines in the humanities and social sciences, natural sciences, technology and engineering studies, communication and business, while gaining mastery of a subject or area of interest. This seamless integration of humanities and social sciences with natural sciences, engineering and technology studies in a core common curriculum is the foundation of the undergraduate educational experience at SNU and is not offered by any other university in the country.

In addition to imparting a broad-based and well-rounded educational experience, the curriculum provides students the freedom to explore a variety of subjects and areas of interest. Such room for exploration and discovery is aimed at providing students the opportunity to pursue a range of intellectual interests resulting in greater academic success, better career choices and deeper personal satisfaction. The undergraduate curriculum at SNU also places heavy emphasis on experiential learning and co-curricular activities and all students are required to participate in some form of internship, practicum or service learning program, in addition to training in the conduct of research both within and outside the classroom or laboratory setting. This provides students a real-world context for their learning and direct hands-on experience that seamlessly integrates theoretical knowledge and its practical application.

Undergraduate studies at SNU are designed to ensure that students leave the University with the knowledge, skills and intellectual abilities to launch successful careers in their chosen professions. We are not simply interested in placing students in jobs. Our objective is to ensure that students are prepared for life-long careers and have the abilities required for managing and leading public institutions, commercial enterprises and organizations in civil society. The University’s mission is to develop students with the breadth of vision, knowledge, skills and attitudes needed to shoulder the globally responsible and ethical leadership burdens of the 21st Century and beyond.

The undergraduate programme at SNU is the foundation that will prepare students to achieve these goals. The 4-year inter-disciplinary program enables students to specialize in their chosen fields while developing a deep understanding of the political, economic, social and historical context in which they will use their expertise. For
instance, the engineering graduate from SNU will not only be a sought-after engineer, but will also have sufficient knowledge about her legacy, the history, the politics, and the language that make up her neighbourhood. The economics graduate will know about the challenges faced by scientists, the ethics of professional activity and the art of policymaking.

The SNU undergraduate programme imparts to students superior analytical training and an appreciation of the society they will live in and where they will practise their disciplinary skills at the highest levels. Thus, while they specialize in their fields to the same extent as any other 3-year honours undergraduate programme, the additional year helps them develop a perspective well beyond their specialization preparing them to be leaders in society at large.

Education is more than mastering a skill; it is the development of the mind to appreciate the complex demands made by society, to precisely formulate problems, to come up with solutions and, ultimately, to deliver and implement these solutions. This is the hallmark of a great education and it requires developing in students analytical abilities and social perspectives, theoretical expertise and real work applications as well as the power to communicate, persuade and inspire. SNU’s undergraduate curriculum is designed to develop and inculcate in students leadership capabilities and a sense of responsibility and service to society along with academic excellence and a concrete understanding of the world they inhabit. Its objective is to foster students’ ability to integrate critical thinking, interpretive skills, scientific exploration, hand-on experience and normative principles into their worldview and to prepare them as future leaders in a complex, changing, and unpredictable world.
BASIC STRUCTURE OF THE UNDERGRADUATE CURRICULUM

All undergraduate students must successfully complete a minimum of 120 credit hours of formal course-work to fulfill the credit requirements of a Baccalaureate degree at SNU. However, the actual number of credits required to earn a specific degree may vary depending on disciplinary requirements and the individual degree program pursued by a student. These credits will consist of credits earned through the successful completion courses in three distributional categories: Major Area of Study, University Wide Electives and Core Common Curriculum.

**Major Area of Study (Major)**

All undergraduate students at SNU must specialize in a subject area, ensuring that upon the completion of their degree they will be prepared to step into the working world or continue on to post-graduate studies with a high level of expertise in their subject and with the competence to meet the highest standards of employers or post-graduate faculties. These Major Areas of Study (or Majors) consist of groupings of courses that students are required to take in order to graduate with a specialization in a disciplinary or inter-disciplinary field of study. They can consist of required or core courses that all students pursuing a Major must take, as well as electives, which allow students to individualize their area of interest within the Major. Each department will decide which courses are core and which are elective courses and the combination in which they must be chosen to meet the requirements of their Major.

Students must take a minimum of 60 credits within the Major to graduate, but the academic requirements for any particular Major, and the number of credits required to successfully complete it, are determined by each Department and may exceed 60 credits.

**Minor**

Every undergraduate student of SNU shall have the option of choosing to do a Minor. This means that the student earns certain (as decided by the department offering the Minor) credits in that subject. The Minor has to be a subject offered by a department other than the department that offers the Major of the student or it can be a different Major offered by the same department. For example, a student with the declared Major in Computer Science and Engineering may opt to do a Minor in Physics. In this case, the student shall receive the degree BTech Computer Science and Engineering with Physics.
University Wide Electives (UWEs)

All undergraduate students at SNU have the flexibility to choose multiple university wide electives, providing them the opportunity to discover their academic passion and enhancing their engagement in the learning process through the individualization of their programs of study. University Wide Electives (or UWEs) consist of those regular undergraduate courses offered by all academic departments that are open to all students at the University, regardless of their Major. All Departments in the University designate a select number of courses as University Wide Electives and students from across the campus may register for such a designated course. To qualify as a UWE the course must be offered by a department other than the department offering the student’s Major. Students must take a minimum of 18 UWE credits to fulfil their degree requirements.

Core Common Curriculum (CCC)

All undergraduate students at SNU must take a core group of common subjects designed to ensure that they have the breadth of learning, historical context, and understanding of contemporary developments that are necessary not only to succeed, but to lead in the 21st century. SNU’s Core Common Curriculum (or CCC) is a unique feature of the University’s undergraduate education and is based on the guiding principle that all students graduating from SNU must have a firm and common foundation of essential knowledge and awareness. The CCC is designed to provide students a broad-based understanding of the world, its physical, biological and social systems, the development of human civilization and culture, and the historical development and modern formation of global society with a special emphasis on the history and development of India.

Rapid and continuous change is a major feature of our globalized world. Consequences in one country or region of the world have significant effects in other countries and societies. The CCC is designed to provide students an understanding of the forces that are driving local, national and global change and to give them an awareness of the problems facing an increasingly integrated world. In addition, the CCC is designed to arm students with the intellectual tools needed to understand the world they live in, including the ability to employ empirical and interpretive methods that will allow them to evaluate and critique a range of human activities from science and technology, to political, economic and social systems, to literature, art, culture and human communication.
The CCC consists of courses in 8 Topic Areas that all students must take in order to secure an undergraduate degree from the University, regardless of their Major or area of specialization. All students at the University must take between 24 and 30 CCC credits with a minimum of 1.5 credits from each of the 8 Topic Areas. These courses are usually shorter in duration than regular undergraduate courses and may carry fewer credits than regular courses. Typically, CCC courses will carry 1.5 credits and will have half-semester durations, though some could vary.

For the Academic Year 2012-13, the 8 Topic Areas in the CCC are:

1. Indian History and Society
2. World History and Society
3. Culture and Communication
4. Physical and Living Systems
5. Cognition and Intelligence
6. Technology and Society
7. Environment and Ecology
8. Reasoning and Analysis

**India History and Society (IHS)**

Courses in IHS provide an understanding of Indian history and contemporary society through an examination of the country’s social, political, economic, legal, religious and cultural institutions, the events that have shaped their formation and the national and international issues confronting the country today.

**World History & Society (WHS)**

Courses in world history and society examine the development of modern societies through historical and contemporary analyses of their economic, political, social and legal systems. Students learn about the diversity of ways in which modern societies have organized their social systems, analyzing the flow and transformation of money, goods, people, resources, information and ideas within and among different societies. Courses in this Topic focus on historical connections between societies as well as the contemporary structure of the international political and economic system with the aim or preparing students for social, political, legal or economic issues they might encounter in a global context.
Culture and Communication (CAS)

Courses in CAS are designed to provide students an understanding of the role of culture and communication in shaping identities and the ways in which literary, media and artistic works mediate peoples’ understanding of themselves and the world. Some course may provide a broad introduction to cultural products, genres, traditions and related interpretive and aesthetic approaches while others may focus on how social, political, religious, and economic conditions shape the production and reception of communication processes and cultural ideas and works. Several courses in this area focus on the rise of digital media and the ways in which the Internet and social media are impacting our daily lives.

Physical and Living Systems (PLS)

Courses in PLS provide a broad overview of the physical and living universe and develop in students an awareness of the context and interdependencies of human life and the world in which it’s embedded. Courses in this Topic provide a firm grounding in the nature of the physical world and its living systems and introduce key concepts, ideas and problems to equip students to better understand our world and the universe. Students learn central facts and concepts about physical and living systems and learn to relate scientific concepts, facts, theories, and methods to the issues they will encounter in their everyday lives.

Cognition and Intelligence (CAI)

Courses in Cognition and Intelligence introduce students to the structure of the human mind and the processes by which people acquire, process, store, assimilate, integrate, apply and act upon information across the range of human activities. Students are exposed to contemporary understandings of the development of cognition and intelligence through courses that integrate knowledge across a range of disciplines including neurophysiology, psychology, linguistics, computer science, evolutionary biology and philosophy. Courses in this Topic are wide ranging and cover subjects dealing with human information processing, perception, learning, memory, decision making, as well as recent developments in the convergence of human and machine intelligence that are driving advances in artificial intelligence and robotics.
Technology and Society (TAS)

Courses in TAS provide students an understanding of the nature of technology, the process of innovation and the relationship between technology and society. They explore the mutual and dialectical influences between technology and social structures and forces and the ways in which technologies reflect, reinforce and transform the structures of social, economic, and political power in society. They explore, within historical and contemporary contexts, the societal implications of technology, identify the social forces that affect the adoption of technology and consider the public policy implications of innovation, recognizing the changing nature of technology and its impact on society.

Environment and Ecology (EAE)

Courses in EAE provide students an understanding of the major environmental and ecological issues confronting India and the world and cover a range of issues related to sustainability, the conservation of natural resources, biodiversity, climate change, soil and water conservation, and air quality. Students will learn to analyze environmental problems and design solutions by exploring the physical and biological processes that maintain life and how human activities affect natural resources. Courses in this Topic recognize that addressing the world’s environmental problems requires an understanding not only of ecological systems but also of the cultural, social, economic, and political forces that act on those systems and therefore analyze the interplay between human and ecological forces and their consequences for local, national and global environments.

Reasoning & Analysis (RAA)

Courses in reasoning and analysis introduce students to the scientific method and teach students how to gather and assess information, analyze data and solve problems based on demonstrable evidence. Courses in this Topic focus on teaching students how to take decisions and draw inferences in matters that involve the evaluation of empirical data. Students learn methods of gathering data, such as surveys, interviews and experiments and how to apply concepts and techniques of data analysis, probability theory, statistics, decision theory, logic, and mathematics to analyze and reach conclusions from the data. Courses teach the conceptual and theoretical tools used in reasoning and problem solving with a concentration on projects in which students apply these tools to concrete real-world problems.
Research Experiential and Applied Learning (REAL)

The University integrates research, and training in the conduct of research, into the undergraduate curriculum across all disciplines. To fulfill their degree requirements undergraduates are required not only to take courses that train them to conduct research but are also required to undertake or participate in active research projects. All students at the University are also required to participate in experiential learning activities such as, internships, volunteerships or service learning projects within and outside of the University setting. REAL requirements can be fulfilled through several different types of courses, projects, work and service opportunities, including: research projects; design projects; practicums; cooperative education; service learning program; internships & volunteerships; cultural immersion programs.

International Context (IC)

Students must incorporate classes with an international focus in their programs of study and endeavor to take advantage of study abroad opportunities. Students must take at least 18 credits in IC courses to fulfill their degree requirements. International courses and study abroad opportunities can be taken as part of University Electives, as part of the courses taken to fulfill the requirements of a Major or CCC courses. These courses can also combined with courses that fulfill REAL and/or VELS requirements programs. The SNU Course Catalog shall identify those courses that fulfill IC requirements.

Values, Ethics, Leadership and Service (VELS)

To further the objective of preparing students for leadership positions in society, students must take courses that contain material intended to prepare them for a life-long commitment to leadership grounded in values, ethics and service to society. Students must take at least 18 credits in VELS courses to fulfill their degree requirements. These VELS designated courses can be taken as part of University Electives, as part of the courses taken to fulfill the requirements of a Major or CCC courses. These courses can also combined with courses that fulfill REAL and/or IC requirements programs. The SNU Course Catalog shall identify those courses that fulfill VELS requirements.

The details of the credit requirements, evaluation, grading scheme and other relevant information are laid out in the Undergraduate Handbook.