invites applications for M.S. in Bioinformatics and Cheminformatics

In view of the substantial industry demand-supply gap being observed in Bioinformatics and Cheminformatics in India, SNU is launching an M.Sc. curriculum in Bioinformatics and Cheminformatics with the aim of bridging this gap. With an eclectic mix of faculties from academia and industry this course will provide an appropriate platform for the candidates to launch a career in industry or join an Ivy league Ph.D. program. The program will enhance the competence in bioinformatics and cheminformatics by providing extensive hands on training in the areas of advanced cell and molecular biology, computer science, statistics, bioinformatics, medicinal chemistry and cheminformatics etc. The program will prepare students for bridging the gaps between graduates and industry-ready professionals that will qualify them for academic and industry jobs. This two year course will provide students exposure to research since the course has two six months projects, one internal and another external.

SNU has been running Ph.D. programs in Bioinformatics, Life sciences and Chemistry since 2012. Student will be provided access to a high-end PC and dedicated access to the internet for the entire duration of 2 years. Lectures are delivered by in-house faculty, distinguished academicians and industry specialists from leading institutions or companies from around the globe. A substantial amount of time will be devoted to learning through material available on-line, journals, seminars, tutorials, group discussions etc. The program of study will include Cell Molecular Biology & Genetics, Bioinformatics, Statistical Techniques, Programming, Molecular Modeling & Dynamics, Medicinal Chemistry, Computational Biology, Structure Biology, Java & RDBMS, R, Comparative, Genomics, Proteomics & Metabolomics, Informatics & Drug Discovery, Systems Biology, Molecular Networks & Molecular Phylogenetics, besides a research project and elective topics.

Bioinformatics Infrastructure

**Informatics Lab Infrastructure:** Computer lab equipped with high end computers and softwares like Matlab, Schrodinger, MOE etc. Computational facilities at SNU include a high performance IBM cluster “MAGUS” consisting of 32 compute nodes delivering 332.8 Giga flops with each node and a theoretical peak performance of 10.649 TF over all compute nodes, and also nodes with GPU processors.
**Life Sciences Infrastructure:**

FACS ARIA III, Real Time PCR (ABI), Fluorescent Microscope, Mammalian cell culture (BSL-2) facility, Ammexa nucleofactor, Acta prime, Bioreactors with other high end Molecular Biology instruments like Next Generation sequencer, Proteome Lab, Clone Pix and Confocal Microscope are housed in the Life Sciences lab. The central instrumentation facility will have NMR 400MHz, HPLC, LCMS, MALDI-TOF, XRD, SEM, AFM, Raman spectrometer, Photoluminescence, Surface Profilometer.

**Chemistry Lab Infrastructure:**

All the chemistry labs are equipped with basic research facilities including fume hoods fitted with Schlenk lines, UV-visible spectrophotometers, Infrared spectrophotometers etc. In addition, a state-of-the-art Central Instrumentation Facility furnished with various analytical instruments such as 400MHz NMR, HPLC, LCMS, GPC, MALDI-TOF, CHN analyser, DSC, TGA, DLS, Rheometer, glove boxes, XRD, SEM, AFM, Raman spectrometer, Photoluminescence, Surface Profilometer, MEMS is planned within the current year.

**Library:**

Our library provides online access, from anywhere on campus, to thousands of electronic journals and databases including ACS, APS, AIP, RSC, Springer and Nature journals, in addition to various books and e-books.

**Minimum Eligibility Criteria**

A recognized BS or BSc degree in any branch of science or technology, viz. life sciences (agriculture, biotechnology etc.), bioinformatics, physics, chemistry, mathematics, statistics, engineering (BTech, BE), pharma (B Pharma), veterinary (BVSc), medicine (MBBS, BDS, BHMS, BAMS etc) or equivalent along with minimum first division or an equivalent grade or at least 60% of aggregate scores in all major examinations from Senior Secondary Certificate (10+2) onwards. Please contact SNU in case you have a doubt about your eligibility. Students awaiting their results can also apply, provided their average percentage of previous semesters/years is at least 60. There is no age limit. Candidates with higher qualifications or having good industry or research experience are also eligible and encouraged to apply for this course.

The above mentioned eligibility criteria are the minimum and SNU may use higher cut off levels for short listing.
Candidate Selection Process

All eligible candidates are requested to fill up the admission forms. Application must include the applicant’s completed application form, detailed curriculum vitae (CV) with a small research proposal (2 pages at max), contact details including phone number, email and postal address. Click here for the application form. Short listed candidates will be called for competitive written examination held at SNU, followed by interviews and final selections. The written test will consist of 3 papers: (1) biology, (2) chemistry and (3) maths, statistics and computer science. Candidates will be expected to clear at least two papers in order to be called for interview.

Important Dates:

- Application available from: 15 April 2013
- Last date for online application: 15 June 2013
- Entrance test: 10 July 2013
- Date of Interview: 10/11 July 2013
- Declaration of Result: 15 July 2013
- Joining date: 31 July 2013

Scholarships and Fees:

See our website for information on Scholarships at the Shiv Nadar University - Graduate Programs.