

Programme Outcomes, Programme Specific Outcomes and Course Outcomes For PG Programmes

Programme Name: *Ph. D. Preparatory Coursework*

Number of Semesters: 1



Name of the Department
University of North Bengal
West Bengal, INDIA

Programme Outcomes

- Provide students with knowledge, general competence, and analytical skills in Research Methodology and Research & Publication Ethics.
- Build their foundation for research in Computer Science.
- Provide hands-on experience to carry out research work in Computer Science as well as interdisciplinary areas like Mathematics, Geography, Bio Sciences, Physics, Chemistry, Linguistics, Music, Medical Sciences etc.

Programme Specific Outcomes

Students will:

- Equip themselves with ethical issues related to Research and Publication.
- Build a strong foundation for future research work in a systematic manner by applying notions of Research Methodology.
- Gain ability to apply knowledge of Computer Science to research in real-world issues.
- Get familiar with current research trends in various core areas of Computer Science like ANN, NLP, Cloud Computing, Digital Image Processing, Big Data, AI, Cryptography, Software Engineering etc.

Course Outcomes

SEMESTER—I		
Course Code	Course Name	Course Outcomes
CPE-REP	Research and Publication Ethics	<p>Knowledge gained:</p> <ul style="list-style-type: none"> • Understanding of ethical issues related to Research and Publication. • Patents and rights. • IPR – Intellectual Property Rights <p>Skills gained:</p> <ul style="list-style-type: none"> • Write research papers/thesis following publication ethics. • Related issues. <p>Competency developed:</p> <ul style="list-style-type: none"> • Publish ethically. • Ways for avoiding plagiarism.
CPE-RM 1	Research Methodology 1: Research Foundation	<p>Knowledge gained:</p> <ul style="list-style-type: none"> • Fundamentals of Research Methodology. • Quantitative methods. <p>Skills gained:</p> <ul style="list-style-type: none"> • Decision making on research topics. • Identifying sources of research problems. • Collecting and analyzing data. <p>Competency developed:</p> <ul style="list-style-type: none"> • Literature Review

		<ul style="list-style-type: none"> • Applying various methods for collecting primary and secondary data. • Analyzing collected data. • Modeling, developing hypothesis and devising new algorithms. • Drawing inferences from data analysis. • Report writing.
CPE- RM 2	Research Methodology 2: Computer Applications in Research	<p>Knowledge gained:</p> <ul style="list-style-type: none"> • Application of computing skills in research. • Open courseware. <p>Skills gained:</p> <ul style="list-style-type: none"> • Use of open courseware like INFLIBNET, ShodhGanga etc. • Spreadsheets and statistical tools. • Use of presentation tools. • Thesis writing. <p>Competency developed:</p> <ul style="list-style-type: none"> • Application of computing skills and computer applications in research. • Expertise in tools/software like LaTeX, MS-Office, Active Scholar and alike.
CPE-IT 11E	Elective	<p>Knowledge gained:</p> <ul style="list-style-type: none"> • In-depth knowledge of the subject chosen for research. <p>Skills gained:</p> <ul style="list-style-type: none"> • Review of existing work in the field of choice. • Thesis writing. <p>Competency developed:</p> <ul style="list-style-type: none"> • Research trends in the field of choice. • Expertise in one of the elective papers provided, viz. ANN, NLP, Cloud Computing, Digital Image Processing, Big Data, AI, Cryptography, Software Engineering etc. • Research trends in interdisciplinary areas.