

CRITERION 1

1.1.1 THE INSTITUTION ENSURES EFFECTIVE CURRICULUM PLANNING AND DELIVERY THROUGH A WELL-PLANNED AND DOCUMENTED PROCESS INCLUDING ACADEMIC CALENDAR AND CONDUCT OF CONTINUOUS INTERNAL ASSESSMENT





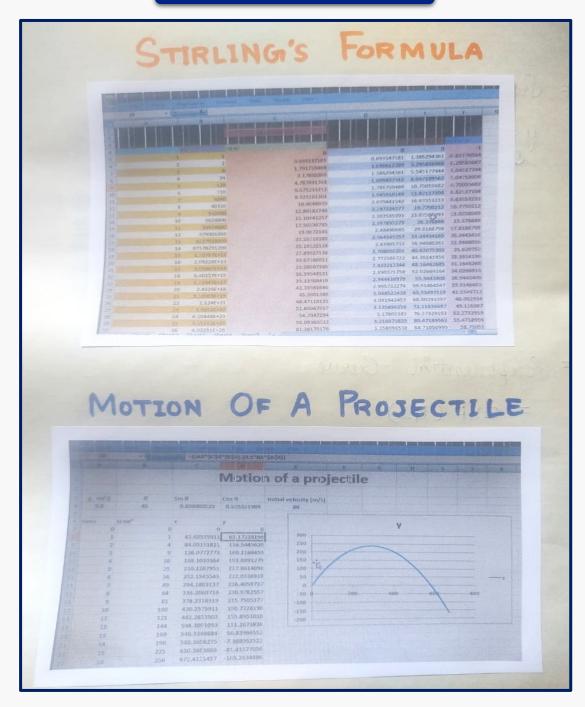
Delivery of Curriculum

Orientation
FDPs
Seminars
Blended Teaching Methods
Value Education and Mentorship
Simulation Classes
Bridge courses
LMS
Remedial Classes



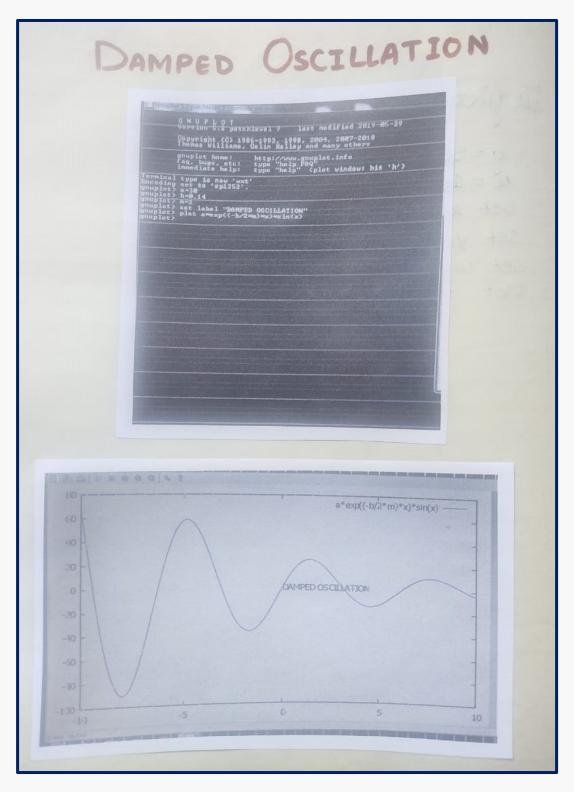
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Simulation Classes



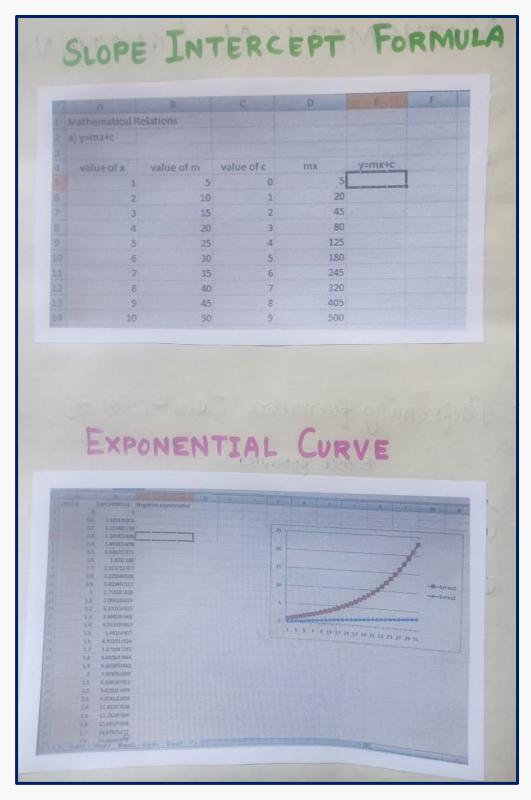
Simulation of motion of a projectile



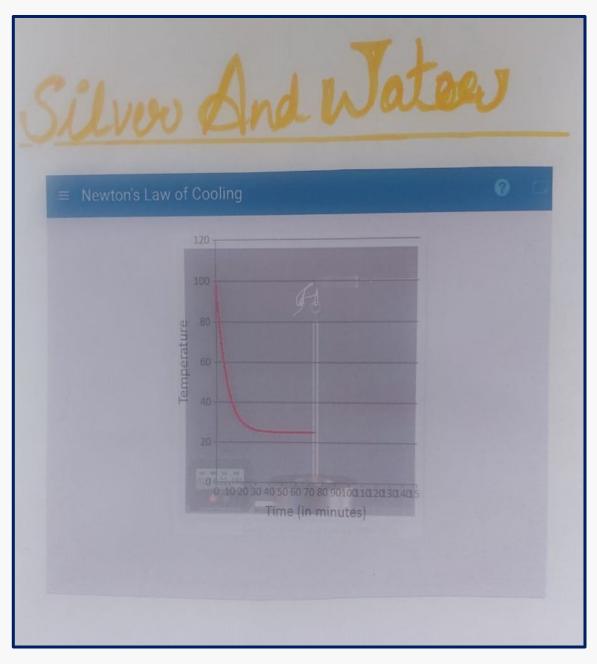


Simulation of Damped Oscillation

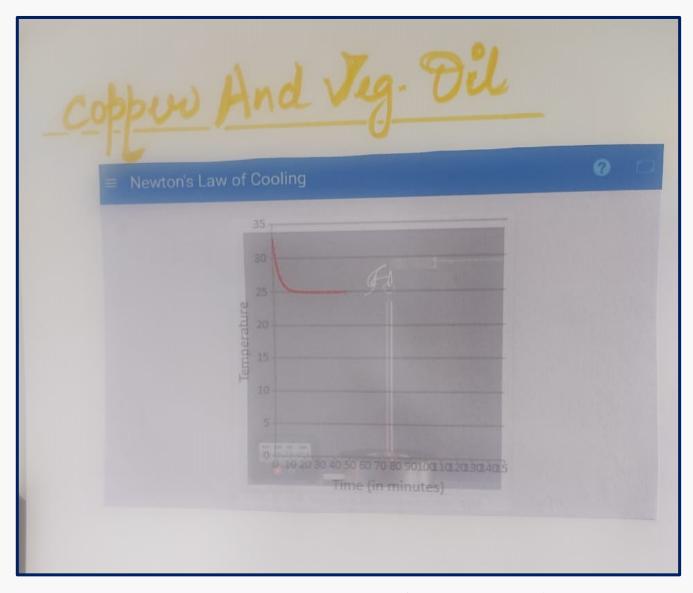




Simulation of Exponential curve



Simulation of Newton's Law of Cooling (Silver and Water)



Simulation of Newton's Law of Cooling (Copper and Veg. Oil)



Bridge Courses

Department of Biotechnology

Department of Biotechnology

The Department of Biotechnology organizes two-day bridge classes for first-year B.Sc. (Hons.) Biotechnology students annually. In these annual bridge classes, first-year B.Sc. (Hons.) Biotechnology students receive comprehensive education. The curriculum includes:

- Overview of Biotechnology: Students learn the fundamentals of the biotechnology field, understanding its impact on human life and the environment. They explore various branches of biotechnology and discover potential future career opportunities.
- 2. **Instrumentation Techniques in Biotechnology:** The course provides insights into laboratory instrumentation used in biotechnology. Students gain hands-on experience with the principles and operation of these essential tools.
- 3. **Biochemistry's Role in Biotechnology:** Students are told about the crucial role of biomolecules in biotechnology, and how these molecules are key players in various biotechnological applications.
- Fundamental Microbial Techniques: Students gain an understanding of the significance of
 microbial communities in daily life and receive information on microbial pathogens and their
 mechanisms of causing diseases.

These bridge classes equip students with a solid foundation in biotechnology, enabling them to pursue their academic journey with a strong base of knowledge and skills.

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Department of Botany

Department of Botany

The Department of Botany regularly organizes bridge classes tailored for first-year B.Sc. students. This course serves as a crucial introduction to the field of botany, shedding light on its potential career opportunities while also examining the laboratory instruments and techniques. The emphasis on laboratory equipment is especially significant since many students may not have had prior exposure to these tools during their earlier education.

To facilitate effective learning, students are strongly encouraged to engage with a variety of instructional materials thoughtfully curated by their instructors. These materials include pictures, presentations, and instructional videos, all aimed at acquainting students with the diverse array of laboratory instruments and their appropriate usage.

The classes cover a wide spectrum of laboratory instruments, and visual aids such as pictures are shared with students to enhance their understanding. This proactive approach ensures that when students eventually engage in practical laboratory work, they are well-prepared and capable of utilizing these instruments proficiently.

Some of the instruments and equipment covered in the course include Dissecting Microscopes, Compound Microscopes, Binocular Microscopes, Hot Air Ovens, Hot Plates, Ecological Instruments, Glass Apparatus, and more. By familiarizing students with these modern tools and instructing them on the precautions necessary for their proper handling, this course equips students with essential knowledge and skills for their botanical studies and future careers.

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Department of Chemistry

Department of Chemistry

The inclusion of bridge classes in our chemistry program is a proactive and effective way to support students in their academic journey. By easing their entry into the world of chemistry and instilling confidence in their abilities, these introductory sessions are instrumental in setting students up for success in their formal education and fostering a genuine passion for the subject.

The primary objectives of these bridge classes are as follows:

Familiarization with Chemistry Concepts: The bridge classes introduce students to basic chemistry concepts, providing them with a solid foundation for their formal coursework. By acquainting students with essential ideas and principles, these sessions help demystify the subject and make it more approachable.

Thorough Understanding: The exposure to fundamental chemistry principles during these introductory sessions contributes to a deeper and more thorough understanding of the subject. Students gain confidence in their grasp of chemical topics as they progress through the bridge seminars, setting the stage for success in their future studies.

Transition Support: The transition from high school chemistry to college-level coursework can be challenging. Bridge sessions play a crucial role in bridging this gap, ensuring that students are well-prepared for the academic rigors of higher education.

Cultivation of Curiosity: These bridge classes have the added benefit of piquing students' curiosity. By making chemistry more engaging and accessible, students are more likely to develop a genuine interest in the subject, which can enhance their overall learning experience.

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Department of Commerce

Department of Commerce

Every year, the Commerce faculty conducts bridge classes to provide students with a foundational understanding of commerce. These bridge courses are designed to bridge the gap between the knowledge acquired in high school and the requirements of higher education in commerce. They serve as preparatory courses for college-level studies, offering an academic curriculum aimed at enhancing students' knowledge and preparing them for the intellectual demands of commerce subjects.

The objectives of these bridge classes are as follows:

Knowledge Enhancement: The bridge classes aim to enhance students' knowledge by equipping them with essential information about core commerce subjects. This foundation is crucial for their success in degree-level courses.

Transition Support: It serves as a buffer for new students, allowing them adequate time to transition smoothly into the rigors of degree-level courses. This transition period provides students with the opportunity to adapt to the academic challenges that lie ahead.

Confidence Building: Through interactions with faculty and peers, students gain not only knowledge but also the confidence needed to tackle more substantial academic challenges in the future.

In essence, these bridge classes play a vital role in preparing students for their journey into higher education within the field of commerce. They ensure that students are well-prepared and confident as they embark on their first-year degree programs.

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Department of Computer Science

Department of Computer Science

At the start of every academic year, bridge classes are initiated to provide students with a concise introduction to the concepts covered in the new syllabus. These bridge classes are conducted for all students pursuing BCA, BA, and BSc programs, with the primary goal of helping them adapt to the new curriculum effectively.

The key objectives of these bridge classes include:

Facilitating Transition: These classes assist students in transitioning smoothly into the new syllabus. They serve as a preparatory phase, ensuring students are well-prepared to handle the academic challenges of the upcoming year.

Reviewing Previous Lessons: Students are given an opportunity to revisit and understand the connections between the previous year's lessons and the new syllabus. This review helps build a solid foundation for building upon existing knowledge.

Emphasizing Subject Importance: Bridge classes highlight the significance of the subject matter, motivating students to develop a deeper understanding of it. This instills a sense of purpose and relevance in their studies.

The topics covered in these classes span a range of subjects, including computer basics, computer generation, the importance of programming, traditional methods for data processing, and computerized data processing. These topics are typically presented through engaging methods such as presentations and group discussions, ensuring that students not only gain theoretical knowledge but also can engage in active learning and discussion. Ultimately, these bridge classes help students prepare for their academic journey and promote a clearer understanding of the subject matter.

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Department of Economics

Department of Economics

In the economics program, the faculty incorporates a valuable component known as "bridge classes" to support first-year students in their transition to the subject. These bridge classes aim at familiarizing students, especially those with limited prior exposure to economics, with essential concepts and principles that form the foundation of the discipline.

During these introductory bridge classes, faculty members take the lead in introducing students to crucial economic terminologies, theories, and models. The objective is to establish a strong foundational understanding, ensuring that every student begins their economics education with a solid grasp of the basics. By the conclusion of these bridge classes, students should feel confident in navigating economic concepts, setting them up for success as they progress through the formal curriculum.

These introductory classes play a pivotal role in easing students into the realm of economics and preparing them for the academic challenges that await them. They serve as a bridge between prior knowledge and the more advanced topics they will encounter in their economics studies, ensuring that all students start their educational journey on equal footing.

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Department of English

Department of English

Every year, the English department conducts bridge classes for undergraduate students, designed to achieve several important objectives:

Cultivating a Love for English: The primary aim is to instill a passion for the English language and literature among students, fostering a deep appreciation for the subject.

Smooth Transition: Bridge classes serve as a bridge between high school and college, equipping students with the necessary skills and knowledge for their upcoming courses.

Enhancing Writing Skills: These classes address common grammatical issues and refine students' writing styles to meet college-level standards. This helps them excel in academic writing.

Improving Communication Skills: Through class discussions, presentations, and debates, students enhance their communication abilities, a valuable skill for academic and professional success.

Literary Analysis: Students are introduced to fundamental concepts of literary analysis, such as themes, symbolism, and imagery, preparing them for in-depth literary studies.

Exploring Literary Forms: Bridge classes acquaint students with various forms and genres of literature, broadening their literary horizons.

Critical Writing: Introductory training is provided for writing long answers through critical analysis of literary texts, a crucial skill for literature courses.

Disciplinary Understanding: Students gain an understanding of the specific requirements of the various English courses offered by the department.

Enhancing Reading and Comprehension: These classes improve students' reading, comprehension, and critical thinking abilities, enabling them to engage effectively with complex texts.

These bridge classes play a pivotal role in ensuring a seamless transition for students from high school to college-level English courses. They boost students' confidence in tackling college-level writing assignments and literary analysis, reducing the academic shock often experienced by newcomers. These classes serve as a valuable preparation tool, equipping students with the essential skills and knowledge needed to excel in their academic journey in the English department.

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Department of Geography

Department of Geography

For first-year students, "bridge classes" are a crucial component of the geography programme since they ease the transition from their previous coursework to the new material. The main purpose of these classes is to make students familiar to the courses of Geography particularly those who might not have earlier exposure to Geography, with core and fundamental concepts and principles that serve as the essence of subject.

Teachers make the effort to introduce students to key geographic models, concepts, terminologies, and theories across these beginning bridging sessions. These sessions are designed to make a good basic understanding, to ensure that each student begins their geographic education on a strong note by providing a firm foundation for knowledge. Students will have gained confidence in geographic ideas by the end of these bridging classes, preparing them for success as they move through the formal curriculum. These beginning courses are crucial for easing students into the study of Geography and preparing them for the forthcoming academic difficulties.

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Department of Hindi

Department of Economics

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Department of History

Department of History

The Department of History conducts annual bridge classes for newly admitted first-year students, held before the regular classes begin. The weeklong bridge classes aim to bridge the gap between the subjects studied at the Higher Secondary level and those they will encounter in their undergraduate studies.

The syllabus covered during the bridge course includes:

Basic Knowledge of History:

Definition and concepts

Nature and Scope of History

The primary objectives of these bridge classes are to:

Facilitate a smooth transition for new students into the demands of degree-level courses.

Provide students with foundational knowledge in history, ensuring they are prepared for their academic journey.

Build awareness among students about effective teaching and learning practices.

Foster a sense of confidence and familiarity with faculty members and fellow students, helping to create strong relationships within the academic community.

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Department of Home Science

Department of Nutrition & Health Education

The bridge classes for students of Nutrition & Health Education are carefully designed to provide valuable supplementary knowledge in the field of Nutrition and Health. These classes serve as a precursor to the actual coursework, consisting of 6 hours of interactive sessions over the first three days before the official course commencement.

The primary objectives of these bridge classes are as follows:

Basic Knowledge Enhancement: The bridge classes aim to impart fundamental knowledge to students, enhancing their understanding of nutrition and dietetics. It serves as a foundation upon which they can build their expertise in the field.

Interest and Enrichment: These classes are tailored for students who have a genuine interest in delving deeper into the finer points of nutrition. They are designed to stimulate curiosity and enrich the minds of those eager to learn.

Holistic Understanding: The curriculum covers a wide spectrum of topics, including nutrients, food science, and nutrition concerns at various stages of the life cycle. This holistic approach ensures that students develop a multidimensional understanding of the subject.

These bridge classes aim to provide students with a solid foundation and a well-rounded perspective on Nutrition, Food, and Health. By addressing these objectives, they ensure that students are well-prepared to embark on their academic journey in the field of nutrition and make meaningful contributions to the promotion of health and well-being.

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Department of Mathematics

Department of Mathematics

The bridge classes serve as a crucial buffer for incoming students, with the primary objective of equipping them with the necessary knowledge and skills for a smooth transition into more rigorous degree programs. These classes offer students a valuable opportunity to prepare themselves before diving into the core courses of their chosen program.

The bridge classes are designed as interactive sessions that span 6-9 hours, typically conducted over the first three days before the official commencement of the full-fledged courses.

The students are systematically introduced to fundamental mathematical concepts. These classes serve as a foundational platform where mathematical principles are presented and explored. Through interactive sessions and targeted instruction, students gain exposure to key mathematical ideas and problem-solving techniques. This early introduction to mathematical concepts plays a crucial role in preparing students for more advanced coursework and ensures they have a solid footing in mathematics as they progress in their academic journey.

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Department of Microbiology

Department of Microbiology

Prior to the commencement of regular classes, the department conducts a week-long bridge class to prepare students for their Microbiology program. The primary objective of these classes is to bridge the knowledge gap between subjects studied at the pre-university level and those that would be covered in Microbiology.

Key features of the bridge classes:

Smooth Transition: To facilitate an easy transition for students into the realm of applied science, particularly Microbiology. It helps students adapt to the challenges and demands of their chosen field.

Inclusivity: The bridge classes cater to students with varying levels of academic performance, standards, and learning styles. This approach ensures that all students, regardless of their background, are adequately prepared for the three-year Microbiology program.

Lab Sessions: Practical lab sessions are a crucial component of these bridge classes. They allow students to gain hands-on experience and apply theoretical knowledge to real-world scenarios.

Interactive Evaluation: The classes conclude with an interactive session aimed at evaluating students' basic knowledge and understanding of the material covered during the bridge course.

These bridge classes are instrumental in preparing students for their Microbiology program, ensuring they have the necessary knowledge and confidence to excel in their studies. The emphasis on practical learning and inclusivity makes these classes a valuable step in their academic journey.

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Department of Music

Department of Music

Bridge classes for music provide the necessary building blocks for a successful musical journey. They offer a supportive and nurturing environment where students can lay the foundation for their future musical endeavors, whether they aspire to become performers, composers, educators, or music enthusiasts. These classes introduce students to the fundamental principles of music theory. Topics may include notation, scales, chords, key signatures, and basic harmony.

These classes help build confidence, improve skills, and instill a deeper appreciation for music.

For students considering a music major or career, bridge classes offer a solid start on their musical journey.

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Department of Physical Education

Department of Physical Education

Bridge classes for physical education are designed to prepare students for advanced physical education programs. They introduce foundational fitness concepts, sports fundamentals, and wellness education. These classes also focus on skill development, fitness assessment, and goal setting. Their aim is to equip students with the knowledge and readiness required for success in more advanced physical education courses.

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Department of Physics

Department of Physics

Bridge classes for physics establish a strong foundation in measurement principles, error analysis, and uncertainty quantification. These fundamental skills are essential for any physicist, as accurate measurements are at the core of scientific inquiry and discovery. By instilling these concepts early on, students are well-prepared to excel in their physics coursework and conduct meaningful experiments with confidence.

Students are familiarized with various measurement instruments, such as rulers, vernier calipers, screw gauges, thermometers, and electrical instruments. They learn how to use these tools effectively and accurately.

Students are introduced to the concept of errors in measurements. They learn to distinguish between systematic errors, which consistently affect measurements in one direction, and random errors, which introduce variability. Understanding these errors helps in improving the accuracy of measurements.

Bridge classes emphasize the crucial concept of uncertainty in measurements. Students learn how to quantify and express the level of confidence or doubt associated with a specific measurement. Students are introduced to principles of experimental design. They learn how to plan experiments, select appropriate measurement instruments, and minimize potential sources of error.

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Department of Political Science

Department of Political Science

The Department of Political Science conducts "Bridge Classes" as an essential exercise to provide all incoming students with an equal foundation in the curriculum. These classes serve as a crucial step in ensuring that all students, regardless of their background, have a solid starting point for their political science studies.

Key features of these bridge classes include:

Bridging the Gap: The classes are particularly beneficial for students who come from nonpolitical science backgrounds and have limited prior knowledge of the subject. The aim is to bridge the knowledge gap effectively.

Basic Political Understanding: Students are introduced to the fundamental concepts and principles of political science, ensuring they have a basic understanding of the subject.

Engaging Discussions: The sessions are interactive and filled with discussions on political scenarios at the state, national, and global levels. This engagement helps students connect theory to real-world events.

Varied Learning Tools: Bridge classes employ various teaching methods such as quizzes, debates, documentaries, and PowerPoint presentations to explain simple political theories and

Additionally, these sessions acquaint students with the department's activities, syllabus, and relevant political topics and theories. Students are also introduced to the department's "Electoral Literacy Club," which plays a crucial role in sensitizing both departmental students and the entire college community about constitutional values, civic obligations, and the importance of participating in elections.

Overall, these bridge classes not only level the playing field for all students but also serve as a means to encourage students to become active and informed members of society, with a focus on their civic responsibilities and contributions.

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Department of Psychology

Department of Psychology

Every year, before the start of the academic session, the department conducts bridge classes for newly admitted students. The primary objective of these classes is to provide students with essential knowledge about various schools, basic concepts, theories, and fields of psychology. The aim is to bridge the gap between subjects studied at the pre-college level and those they will encounter in their undergraduate studies.

Key aspects of these bridge classes include:

Knowledge Enhancement: The classes are designed to equip students with a foundational understanding of psychology, ensuring they have a basic knowledge of the subject before delving into their undergraduate curriculum.

Confidence Building: Bridge classes play a vital role in building students' confidence and skills, helping them make a successful transition to college and adapt to their new academic environment.

Awareness about Department Activities: Students are introduced to the department's activities, syllabus, and academic processes, including the credit system, continuous comprehensive assessment, and practical they will participate in during the session.

Broadening Horizons: Discussions during these classes encompass various aspects of psychology, such as its applications and fields, the use of statistics, and potential career opportunities in psychology.

Understanding Roles: Students are also made aware of the roles of professionals in the field, including psychologists, psychiatrists, therapists, and counselors, particularly in clinical settings.

These bridge classes are instrumental in preparing students for their psychology program, ensuring they have the foundational knowledge, confidence, and awareness needed to succeed in their undergraduate studies. They serve as a valuable transition phase, helping students adapt to college life and their chosen curriculum effectively.

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Department of Zoology

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Bridge classes for first-year Zoology students aim to ease the transition into higher education and promote academic and personal success by addressing academic, social, and psychological factors. These classes provide support for students to acquire necessary knowledge and competencies, helping them transition successfully to the next educational stage.

Specifically, bridge classes in animal diversity prepare students for engaging with the subject effectively. They establish a strong foundational understanding of animal diversity concepts, including taxonomy, classification, and evolutionary relationships. Students learn to classify and identify various animal species and gain insight into how different animal groups have evolved over time. These classes also enhance research literacy skills by encouraging students to critically analyze scientific papers related to animal diversity.

Similarly, bridge classes in comparative anatomy of vertebrates focus on building a solid foundation in vertebrate anatomy. They introduce students to essential concepts, terminology, and principles while emphasizing the comparative method. This approach highlights both similarities and differences in anatomical structures among different vertebrate groups, fostering critical thinking and analytical skills to prepare students for more advanced coursework.

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