





**AXIS INSTITUTE OF HIGHER EDUCATION - KN115** 

## **VALUE ADDED COURSES**

**SESSION: 2024-25** 





## **AXIS INSTITUTE OF HIGHER EDUCATION – KN115**

## **Rooma Kanpur**

# VALUE ADDED COURSE 2024-25

SR.	COURSE CODE	COURSE NAME	DURATION
1	VACUVVS	UV- Visible Spectroscopy: Instrumentation & Handling	35 Hours
2	VACCHN	Community Health & Nutrition	40 Hours
3	VACSIPRM	Strategic Intellectual property Right (IPR) Management	35 Hours
4	VACBC	Basics of Computer	40 Hours
5	VAC/BBA/24-25/01	Generative AI Chat GPT (Training partner - Degree 2 Destiny)	30 Hours
6	VAC/BBA/24-25/02	Certificate Program in Banking, Finance and Insurance (Training Partner - Bajaj Finserv)	100 Hours
7	VAC/BBA/24-25/03	Employment Oriented Training (Training Partner - ICT Academy and Infosys)	100 Hours
8	VAC/BBA/24-25/04	Soft Skills and communication (Training Partner - Crack-ED)	40 Hours
9	VAC/BBA/24-25/05	PDP and Verbal Ability	40 Hours
10	VAC/BCA/24-25/01	Essential Java for new Programmers	60 Hours
11	VAC/BCA/24-25/02	Soft Skills and communication (Training Partner - Crack-ED)	40 Hours
12	VAC/BCA/24-25/03	Efficient Data Structure for Problem Solving	60 Hours
13	VAC/BCA/24-25/04	Verbal and Employment Ability	40 Hours

#### INTRODUCTION

The ever-changing global scenario makes the world more modest and needs high levels of lateral thinking and the spirit of entrepreneurship to cope up with the emergent challenges. Many a times, the defined skill sets that are being imparted to students today with Program Specific Objectives in educational institutions become redundant sooner or later due to rapid technological advancements. No university curriculum can adequately cover all areas of importance or relevance. It is important for higher education institutions to supplement the curriculum to make students better prepared to meet industry demands as well as develop their own interests and aptitudes.

## The main objectives of the Value-Added Course are:

- ✓ To provide students an understanding of the expectations of industry.
- ✓ To improve employability skills of students.
- ✓ To bridge the skill gaps and make students industry ready.
- ✓ To provide an opportunity to students to develop inter-disciplinary skills.
- ✓ To mold students as job providers rather than job seekers.

Course Designing The department interested in designing a Value-Added Course should undertake Training Need Analysis, discuss with the generic employers, alumni and industrial experts to identify the gaps and emerging trends before designing the syllabus.

#### **CONDUCTION OF VALUE ADDED COURSES**

Value Added Course is not mandatory to qualify for any program and the credits earned through the Value-Added Courses shall be over and above the total credit requirement prescribed in the curriculum for the award of the degree. It is a teacher assisted learning course open to all students without any additional fee. Classes for a VAC are conducted during the RESERVED Time Slot in a week or beyond the regular class hours The value-added courses may be also conducted during weekends / vacation period. A student will be permitted to register only one Value Added Course in a Semester. Student will be encouraged to opt for the VAC offered by his/her parent Department/Faculty. Industry Experts / Eminent Academicians from other Institutes are eligible to offer the value-added course. The course can be offered only if there are at least 5 students opting for it. The students may be allowed to take value added courses offered by other departments after obtaining permission from Dean offering the course. The duration of value added course is 30 hours with a combination 18 hours (60%) of theory and 12 hours (40%) of

practical. However, the combination of theory and practical shall be decided by the course teacher with the approval of the HOD/Director of College.

#### **DURATION AND VENUE**

- The duration of value-added course should not be less than 30 hours.
- The HOD of the Department shall provide class room/s based on the number of students/batches.
- VAC shall be conducted in the respective School itself.

#### **GUIDELINES FOR CONDUCTING VALUE ADDED COURSES**

- Value Added Course is not mandatory to qualify for any program.
- It is a instructor supported learning course open to all students without any added fee.
- Classes for VAC will be conducted during the RESERVED Time Slot in a week or beyond the regular class hours.
- The value-added courses may be also conducted during weekends / vacation period.
- A student will be permitted to register only one Value Added Course in a Semester.
- Students may be permitted to enroll in value-added courses offered by other departments/ Schools after obtaining permission from the Department's Head offering the course.

#### **REGISTRATION PROCEDURE**

The list of Value-Added Courses, along with the syllabus, will be available on the College Website. A student must register for a Value-Added Course offered during the semester by completing and submitting the registration form. The Department Head shall segregate according to the option chosen and send it to the HOD of the college offering the specific Value-Added Courses.

- Each faculty member in charge of a course is responsible for maintaining Attendance and Assessment Records for candidates who have registered for the course.
- The Record must include information about the students' attendance and Assignments, seminars, and other activities that were carried out.
- The record shall be signed by the Course Instructor and the Head of the Department at the end of the semester and kept in safe custody for future verification.
- Each student must have a minimum of 75% attendance in all courses for the semester in order to be eligible to take certificate.
- Attendance requirements may be relaxed by up to 10% for valid reasons such as illness, representing the University in extracurricular activities, and participation in NCC.
- The students who have successfully completed the Value Added Course shall be issued with a Certificate duly signed by the Authorized signatories.



#### **Department of Biotechnology**

#### **Value Added Course**

#### B.Sc. Biotechnology - 5th Semester

#### Session 2024-25

UV- Visible Spectroscopy: Instrumentation and Handling Course Code: VACUVVS

Total Hrs. - 35 Hrs.

This value-added course introduces participants to the fundamental principles and techniques of UV Spectroscopy, focusing on the instrumentation and proper handling required for accurate results. By the end of the course, participants will be equipped with the practical knowledge to effectively use UV Spectroscopy in research and laboratory settings.

#### **Objectives:**

- Enhancing the expertise in instrumentation.
- Improving students' analytical skills.
- Making them industry ready professionals.

#### **Courses contents:**

- Introduction to UV Spectroscopy
- Instrumentation
- Sample Preparation and Handling
- Data Analysis and Interpretation
- Operating the UV Spectrophotometer
- Applications of UV Spectroscopy

- 1. Cantrell, A., & PerkinElmer. (2010). UV-visible spectroscopy: An introduction. PerkinElmer.
- 2. Skoog, D. A., Holler, F. J., & Crouch, S. R. (2017). *Principles of instrumental analysis* (7th ed.). Cengage Learning



## **Department of Medical Microbiology**

#### **Value Added Course**

#### B.Sc. Medical Microbiology – 3rd Semester

## Session 2024-25 Community Health Nutrition Course Code: VACCHN

Total Hrs. - 40 Hrs.

Aim of this course is to train the participants on Community Health Nutrition.

#### **Objectives:**

- To understand the concept and Scope of community nutrition.
- To know the assessment techniques applications for individuals and community.
- To gain knowledge about the nutritional problems in the community

#### **Courses contents:**

- 1. Positive Health Behaviour of a Person
- 2. Direct and Indirect Methods of Nutritional Assessment
- 3. Protein Energy Malnutrition- Aetiology, Prevalence, Symptoms and Preventive measures.
- 4. Nutritional disorders: Anaemia, Vitamin A Deficiency, Iodine Deficiency Disorder.

- "Community Nutrition: Planning Health Promotion and Disease Prevention" by Marcia M. H. (Edelstein) and others.
- "Nutrition in Public Health: Principles, Policies, and Practice" by Arlene Spark and other contributors.



#### **Department of Biotechnology**

#### **Value Added Course**

## B.Sc. Biotechnology – 3rd Semester Session 2024-25

#### STRATEGIC INTELLECTUAL PROPERTY RIGHTS MANAGEMENT

**Course Code: VACSIPM** 

Total Hrs. - 35 Hrs.

The aim is to spark innovation and drive commercial growth, making sure that new and useful products benefit everyone in society.

#### **Course Objective:**

To encourage the creativity of the human mind for the benefit of all and to ensure that the benefits arising from exploiting a creation benefit the creator.

#### **Courses contents:**

- 1. Intellectual property rights (IPR): Genesis and Scope, The Importance of IPR, Types of Intellectual Property Rights: Patents, Trademarks, Copyrights, Design Registration, Trade Secrets, Geographical Indications, Plant Variety Protection.
- 2. National and International Perspectives on IPR
- 3. IPR in Bio-Sciences, Protection of Life Forms, Benefits of IPR in Biological Sciences
- 4. Protecting Intellectual Property: Methods and Strategies, Advantages of IPR in the Biological Field
- 5. Connection Between Intellectual Property Rights (IPR) and Geographical Indications (GI)

- 1. "Intellectual Property: A Very Short Introduction" by S. R. (Steve) Harris
- 2. "Principles of Intellectual Property: A Practical Guide" by Thomas J. Schoenbaum



#### **Department of Medical Microbiology**

#### **Value Added Course**

#### B.Sc. in Medical Microbiology – 1st Semester Session 2024-25

#### BASICS OF COMPUTER

**Course Code: VACBC** 

Total Hrs. - 40 Hrs.

The Basics of computer course covers essential computer concepts, office tools, internet and web technologies, programming, database management, and networking, giving you essential skills to use and understand computers and how they connect.

#### **Objectives:**

- To introduce the participants to the fundamental concepts of computers, including their components, functionalities, and applications.
- To impart basic knowledge of the different types of computers, their uses, and how to handle them.
- To provide a comprehensive understanding of file management, including creation, storage, and retrieval of documents.

#### **Courses contents:**

- 1. Introduction to Computers
- 2. Understanding Computer Components
- 3. Operating Systems
- 4. Basic Computer Operation
- 5. Computer Security and Maintenance

- 1. "Computer Fundamentals: Concepts, Systems & Applications" by D.P. Nagpal.
- 2. "Introduction to Computers" by Peter Nor



## **Department of Management**

#### **Value Added Course**

#### **Bachelor of Business Administration**

**Session 2024-25** 

## Generative AI with ChatGPT

Course Code: VAC/BBA/24-25/01

Total Hrs. - 30 Hrs.

#### **Course Objective:**

To introduce students to the foundational and advanced concepts of Generative AI, with hands-on experience in using ChatGPT and other AI tools for various applications, including content creation, business solutions, and productivity enhancement.

#### **Course Outcomes:**

- Understand the fundamentals of Generative AI and its applications.
- Gain proficiency in using ChatGPT for creative and analytical tasks.
- Develop skills to integrate AI tools into business workflows.
- Enhance employability through practical projects and real-world scenarios.

**Detailed Module:** As provided by the training partner.



## **Department of Management**

#### **Value Added Course**

#### **Bachelor of Business Administration**

**Session 2024-25** 

#### **Certificate Program in Banking, Finance and Insurance**

Course Code: VAC/BBA/24-25/02

Total Hrs. - 100 Hrs.

#### **Course Objective:**

To provide students with in-depth knowledge and practical skills required for careers in banking, finance, and insurance, leveraging industry insights and expertise from Bajaj Finserv.

#### **Course Outcomes:**

- Acquire foundational and advanced knowledge in banking, financial services, and insurance.
- Develop analytical and problem-solving skills relevant to the BFSI sector.
- Understand regulatory frameworks, risk management, and customer service essentials.
- Enhance employability through case studies, role-plays, and industry-driven projects.

**Detailed Module:** As provided by the training partner.



## **Department of Management**

#### **Value Added Course**

#### **Bachelor of Business Administration**

**Session 2024-25** 

#### **Employment Oriented Training**

Course Code: VAC/BBA/24-25/03

Total Hrs. - 100 Hrs.

#### **Course Objective:**

To equip students with practical skills and knowledge essential for employment, with a focus on industry-standard tools and technologies delivered through ICT Academy in collaboration with Infosys.

#### 1. Course Outcomes:

- o Gain proficiency in industry-relevant tools and technologies.
- o Develop technical and analytical skills for real-world business problems.
- o Understand workplace etiquette and project management.
- o Enhance employability through live projects and hands-on training.
- 2. Detailed Module: As provided by training partner



## **Department of Management**

#### **Value Added Course**

#### **Bachelor of Business Administration**

**Session 2024-25** 

**Soft Skills and communication** 

Course Code: VAC/BBA/24-25/04

Total Hrs. - 40 Hrs.

#### **Course Objective:**

To enhance students' interpersonal and communication skills, preparing them for effective interaction in professional settings.

#### **Course Outcomes:**

- o Improve verbal and written communication skills.
- o Build confidence for public speaking and presentations.
- Develop interpersonal skills for team collaboration.
- Master negotiation and conflict-resolution techniques.

**Detailed Module:** As provided by training partner



## **Department of Management**

#### **Value Added Course**

#### **Bachelor of Business Administration**

**Session 2024-25** 

## **Personality Development and Verbal Ability**

Course Code: VAC/BBA/24-25/05

Total Hrs. - 40 Hrs.

#### 1. Course Objective:

To foster all-round personality development and verbal ability, enabling students to excel in interviews and competitive environments.

#### 2. Course Outcomes:

- o Enhance confidence and self-presentation skills.
- Develop a strong command of the English language.
- Master group discussion techniques and personal interviews.
- Build a professional image for career growth.

#### 3. Detailed Module and Lecture-wise Topics:

- Module 1: Personality Development Basics
  - Lecture 1: Self-Assessment and Goal Setting
  - Lecture 2: Building a Positive Attitude
- Module 2: Communication Skills Enhancement
  - Lecture 1: Grammar and Vocabulary Building
  - Lecture 2: Speaking Fluently and Confidently
- Module 3: Verbal Ability for Competitions
  - Lecture 1: Sentence Formation and Correction
  - Lecture 2: Reading Comprehension and Logical Reasoning
- o Module 4: Interview Preparation
  - Lecture 1: Mock Interviews with Feedback
  - Lecture 2: Dressing and Body Language Tips
- Module 5: Group Discussions and Teamwork
  - Lecture 1: Group Dynamics and Leadership Skills
  - Lecture 2: Problem Solving in Team Settings



## **Department of Computer Applications**

#### **Value Added Course**

## **Bachelor of Computer Applications**

**Session 2024-25** 

#### **Essential Java for new Programmers**

Course Code: VAC/BCA/24-25/01

Total Hrs. - 40 Hrs.

#### **Course Objective:**

To introduce students to the fundamentals of Java programming, focusing on object-oriented concepts, syntax, and problem-solving techniques.

#### **Course Outcomes:**

- 1. Understand the basic structure and syntax of Java programs.
- 2. Develop skills to implement object-oriented programming concepts.
- 3. Write and debug Java programs for small-scale applications.
- 4. Gain a foundation for advanced topics in Java and other programming languages.

#### **Detailed Module**

Module 1: Introduction to Java Module 2: Control Structures

Module 3: Object-Oriented Programming Module 4: Exception Handling and File I/O



## **Department of Computer Applications**

#### **Value Added Course**

## **Bachelor of Computer Applications**

**Session 2024-25** 

**Soft Skills and Communication** 

Course Code: VAC/BCA/24-25/02

Total Hrs. - 40 Hrs.

#### **Course Objective:**

To enhance students' interpersonal and communication skills, preparing them for effective interaction in professional settings.

#### **Course Outcomes:**

- Improve verbal and written communication skills.
- Build confidence for public speaking and presentations.
- Develop interpersonal skills for team collaboration.
- Master negotiation and conflict-resolution techniques.

**Detailed Module:** As provided by training partner



## **Department of Computer Applications**

#### **Value Added Course**

## **Bachelor of Computer Applications**

**Session 2024-25** 

#### **Efficient Data Structures for Problem Solving**

Course Code: VAC/BCA/24-25/03

Total Hrs. - 60 Hrs.

#### **Course Objective:**

To equip students with knowledge of key data structures and their applications in solving computational problems efficiently.

#### **Course Outcomes:**

- 1. Understand the importance of data structures in problem-solving.
- 2. Implement and use common data structures such as arrays, linked lists, and trees.
- 3. Analyze algorithms in terms of time and space complexity.
- 4. Solve complex computational problems using appropriate data structures.

#### **Detailed Module**

**Module 1: Introduction to Data Structures** 

**Module 2: Linear Data Structures** 

**Module 3: Non-Linear Data Structures** 

**Module 4: Problem-Solving Strategies** 



## **Department of Computer Applications**

#### **Value Added Course**

## **Bachelor of Computer Applications**

**Session 2024-25** 

Verbal and Employment Ability

Course Code: VAC/BCA/24-25/04

Total Hrs. - 40 Hrs.

#### **Course Objective:**

To enhance students' verbal communication and aptitude skills, preparing them for employment interviews and workplace communication.

#### **Course Outcomes:**

- 1. Develop verbal reasoning and logical problem-solving skills.
- 2. Improve communication and articulation for professional scenarios.
- 3. Build confidence for group discussions and personal interviews.
- 4. Gain essential knowledge of workplace ethics and professionalism.

#### **Detailed Module**

Module 1: Verbal Reasoning Module 2: Communication Skills Module 3: Interview Preparation Module 4: Workplace Readiness

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