

## ACADEMICA INTERNATIONAL STUDIES DUAL DIPLOMA PROGRAM ELECTIVES 2025-2026

# College Entrance Exam Prep - Preparation for selective American college entrance exams, SAT, ACT.

In this course, you'll practice thinking strategies, build verbal proficiency, and sharpen your mathematical reasoning. You'll acquire essential test-taking strategies.

Prerequisites: Successful completion of English II or equivalent. Credits 1.0 Main concepts covered:

- University entrance exam vocabulary, requirements and facts
- Vocabulary: word meanings, roots, prefixes and suffixes, sentence types, sentence endings, literary terms and transition words
- Critical reading
- Inferences
- Point of view
- Author's tone and attitude
- Reading short and long passages
- Understanding reading passages and determining main idea
- Using the Web to improve vocabulary
- Algebraic expressions and algebraic errors
- Converting word problems into math problems
- Maths Rate, Distance, Work, Cost and Mixing problems
- Simultaneous equations
- Factoring quadratic equations

- Inequalities
- Binomials and Trinomials
- Direct and Inverse Variation
- Functions
- Probability
- Rational and radical equations
- Drawing equations, and absolute value
- Geometry, including coordinate geometry, Pythagoras' theorem, parallel and

transverse lines, area and perimeter, area of triangles, rectangles, polygons and circles

- Permutations and combinations: alphanumeric problems, logic, graphics
- Writing Essays: using writing prompts, brainstorming and planning, word choice,

sentence type development

 Grammar: identifying errors and punctuation

#### Concepts of Engineering & Technology

In this course, you will explore the different areas of this profession, its history, its important role in human life and the ethical issues related to engineering.

Prerequisites: None. Credits 1.0 Main concepts covered:

- Development and understanding of Engineering
- Introduction to Engineering, turning problems into ideas
- From sketches to products

- Civil Engineering
- Mechanical Engineering
- Chemical Engineering
- Biological Engineering
- Impossible engineering

### Criminology

In this course, students will explore the field of criminology or the study of crime. In doing so, students will examine possible explanations for crime from psychological, biological and sociological perspectives, explore different types of crime and their consequences for society, and investigate how crime and criminals are dealt with by the criminal justice system. Prerequisites: None. Credits 1.0

Main concepts covered:

- Knowing what a crime is and the different types of crime
- Discuss what criminology is and its impact on our society.
- Examine some of the research methods used to study crime
- Discuss the goals of the American legal system
- Analyze the federal and state judicial system
- Examine the criminal justice system and its crime reduction goals
- Describe the steps involved in the process and investigation of a criminal case

- Understand how a crime scene is processed
- Examine the sources of crime statistics and the problems associated with each
- Define the psychological, sociological and biological factors that explain crime
- Assess and analyze the development and nature of deviant behavior and criminal intent
- Examine how the correctional process can have an impact on crime
- Discuss how penalties vary for different crimes.
- Examine the steps in the civil case process.

### **Digital Photography**

In this course, students will learn creative photographic skills and processes. Students will build a portfolio of work and explore the fields of photography and graphic arts.

Prerequisites: None. Credits 1.0

Main concepts covered:

- Introduction and history of photography
- Description and basic function of a camera
- Main types of photography
- Aperture and shutter speed
- Composition and lighting

- Special techniques
- Careers in photography
- Staged photography
- Editing and manipulating photographs
- Copyright
- Art exhibitions and art organization

### Life Management Skills

The aim of this course is to produce students who are informed about health and safety issues, and capable of making informed decisions. The course focuses on physical and mental wellbeing, and emphasizes responsible decision-making and healthy lifestyle planning.

Prerequisites: None. Credits 1.0 Main concepts covered :

- Responsible decision-making
- Goal setting, including planning for personal health and well-being
- Positive emotional development, including depression and suicide prevention
- Communication, interpersonal and coping skills, including prevention of violence, gangs, bullying and Internet safety
- Nutrition and physical activity
- Tobacco, alcohol and other drug abuse and use
- Health information analysis and consumer awareness
- health-related community resources
- health promotion skills
- Financial decision-making

- Multiple intelligences and ways of learning
- Effective learning techniques
- Time management
- Future career planning
- Leadership skills
- Netiquette and appropriate online behavior
- Social pressure
- Genetic disorders
- Human impact on the environment
- Understanding the media
- Community volunteering

#### Public Speaking and Journalism

In the first semester of this course, students will study public speaking. They will learn what makes a great speech or presentation, and how to write one themselves. Students will also learn how to overcome shyness and deliver an inspiring speech. During the second semester, students will study journalism and how to become a good journalist. They will also study the different types of journalism and why journalism is important.

Prerequisites: None Credits 1.0 Main concepts covered :

• Public speaking

• The various forms of journalism

• Delivering a powerful speech

### Psychology

The aim of this class is to introduce you to the psychological facts, principles and phenomena associated with each of the sub-fields within psychology.

Prerequisites: None. Credits 1.0 Main concepts covered:

- Foundations and evolution of psychology
- Biological bases of behavior
- Psychological research
- Personality traits
- Individualism and collectivism
- Human development
- Classical conditioning
- Learning, memory and intelligence
- Problem-solving and decision-making
- Disorders and psychological therapy
- Stress management
- Social psychology