ENG 206: English I
(BIM)

Course Description

English 201 course focuses on English language and communication skills required for general as well as professional contexts. It encourages students to expand their English vocabulary, improve their reading and writing abilities in English in both social and professional interactions, and learn terminology and skills that they can apply to different communicative purposes. It also seeks to enhance students' cross-cultural understanding by presenting a wide array of ideas from different spheres of human activity, which is of vital importance for success as an executive in management. Reading opinions of thoughtful people is important because we learn about other opinions and ideas in the process and they help shape our ideas and prepare us to become educated citizens who can think and form their own conclusions.

The course has two main components of equal weightage: (50% + 50%)

I. **Core English**

II. **Genres and Disciplines**

Course Objectives and Outcomes

After completing this course, students will be able to:

- read texts written in various disciplines and discourses
- express themselves using varied forms in both speech and writing
- adapt content to purpose, context and audience
- understand and use appropriate style and tone
- conduct general and business communications
- work successfully in a team
- match audience with the purpose and medium of communication
- use presentational and rhetorical techniques for effective communication

- gain disciplinary and interdisciplinary insights

Course Contents

I. Core English

Unit 1.

1. What are you like?

2. Customs and traditions

3. Looking ahead

4. Into the wild

5. Health matters

6. Would you believe it?

7. Traces of the past

Unit 2.

8. The big issues

9. It's a crime

10. Buying and selling

11. Entertainment or art

12. A changing world

13. Writing guide

14. Grammar reference

II. Genres and Disciplines

Unit 3

1. New Nepal

2. Shooting an Elephant

3. The Parrot in the Cage

4. Advertise Your Business

5. The Company Man

6. Light My Lucky

7. The Etiquette of Freedom

8. The Rights of Animals

9. Professions for Women

10. The Stronger

11. Here I Love You

Unit 4

12. Girl

13. Popular Mechanics

14. The Fly

15. Jest and Earnest

16. The Hundredth Dove

17. The Lunatic

18. The Clock Tower

19. Beauty

20. All-Pervading Poetry

21. The Allegory of the Cave

22. Not the Non-Existent

Teaching Method

The suggested teaching method is to introduce the theme and the writing task and then guide the students to practice specific skills and put language knowledge to produce their own writings. It is important to discuss what it means to be educated and how great thinkers lead the way for students to become educated through different ideas and opinions. The study of thoughtful writings on different disciplines by experts in their fields should spark discussion and action around topics of societal importance. The method, therefore, is to engage students in a dialogue about the questions and ideas raised in each text by exploring different perspectives, listening to the voices of others, and respectfully sharing their own experiences and thoughts.

Evaluation

The examinations will cover the language skills and include a range of tasks which assess students' ability to use English in a variety of contexts. Above all, the examinations will assess

the students' ability to communicate effectively in English, especially in reading and writing activities using appropriate writing style. Special credit will be given to originality of expression and depth of thinking,

Prescribed Texts

Gude, Kathy, & Mary Stephens. *Cambridge English Advanced Result: Student's Book with Online Practice*. Oxford UP, 2018.

Lohani, S., compiler & editor. *Visions: A Thematic Anthology*. Kathmandu: Vidyarthi Pustak Bhandar, 2020.

References

Carter, Ronald, and Michael McCarthy. *Cambridge Grammar of English*. Cambridge UP, 2006.

Larsen-Freeman, Diane, and Marti Anderson. *Techniques and Principles in Language Teaching*. 3rd ed., Oxford UP, 2011.

Klarer, Mario. *An Introduction to Literary Studies*. 3rd ed., Routledge, 2013.

Abrams, M.H., and G.G. Harpham. *A Glossary of Literary Terms.* 11th ed., Cengage Learning, 2014.

Minot, Stephen, and Diane Thiel. *Three Genres: The Writing of Literary Prose, Poems and Plays.* 9th ed., Pearson, 2014.

Harmer, Jeremy. *The Practice of English Language Teaching*. 5th ed., Pearson, 2015.

Pearson Education. *Longman Business English Dictionary*. 2nd ed., Longman, 2018.

Oxford Advanced Learner's Dictionary of Current English. 10th ed., Oxford UP, 2020.

IT 231: Foundation of Information Technology
(BIM)

Nature of the course: Theory + Practical

Credits: 3
Lecture Hours:48

Course Objectives:
The main objective of this course is to provide students both theoretical and practical knowledge of fundamental concepts of computers and information technology.

Course Description:
This course covers basic concepts of computers and information technology including introduction, hardware, software, memory, input/output, database, networks and data communication, Internet, multimedia, computer security, and contemporary technologies.

Course Details
Unit 1: Introduction to Computers   3 LHs
Introduction; Digital and Analog Computers; Characteristics of Computer; History of Computer; Generations of Computer; Classification of Computer; Data and Program representation in Computer; Applications of Computers

Unit 2: Information Technology and Business   3 LHs
Business in the information age; Information systems; Organization structure and IT support; Evolution and types of information systems; IT for business; IT for individuals; Computers in past and present

Unit 3: Computer System Hardware   10 LHs
Introduction; Central Processing Unit; Memory Unit; Interconnecting the Units of a Computer; Inside a Computer Cabinet; Computer Memory: Introduction; Memory Representation; Memory Hierarchy; CPU Registers; Cache Memory; Primary Memory; Secondary Memory; Access Types of Storage Devices; Magnetic Tape; Magnetic Disk; Optical Disk; Magneto-Optical Disk; How the Computer uses its memory; Input and Output Devices: Introduction; Input-Output Unit; Input Devices; Human Data Entry Devices; Output Devices; I/O Port; Working of I/O System

Unit 4: Computer Software   6 LHs
Introduction; Types of Software; System Software; Application Software; Software Acquisition; Programming Languages; Operating System: Introduction, Objectives of Operating System, Types of OS, Functions of OS: Process Management, Memory Management, File Management, Device Management, Protection and Security, User Interface, Examples of Operating Systems; New Trends in Software

Unit 5: Data Communication and Computer Network   5 LHs
Introduction; Importance of Networking; Data Communication Media; Data Transmission across Media; Data Transmission and Data Networking; Computer Network; Network Types; Network Topology; Communication Protocols; Networking Hardware; Wireless Networking

Unit 6: Internet and Internet Services   5 LHs

Introduction; History of Internet; The Internet Architecture; Managing the Internet; Connecting to Internet; Internet Connections; IP Address and Domain Name System (DNS); Client-Server Architecture; Hyper Text Transfer Protocol (HTTP); Electronic Mail (Email); File Transfer Protocol (FTP); World Wide Web; Remote Login (TELNET); Static and Dynamic Web Pages; Search Engines; E-Commerce; E-Governance; Smart City; Censorship and privacy issues

Unit 7: Multimedia and the Web   3 LHs

Introduction; Elements of a multimedia system; Graphics; Sound; Image File Format; Web Based Multimedia; Future of Web Based Multimedia; Multimedia in Business; Applications of Multimedia

Unit 8: Database and Database Management System   5 LHs

Introduction; Database; Data Concepts and Characteristics; Database vs file System; Database Models; Database Management System; Database System Architectures; Database Applications; Cloud Database

Unit 9: Computer Security and Privacy   4 LHs

Computer security and control; Unauthorized Access and Unauthorized Use; Protecting Against Unauthorized Access and Unauthorized Use; Computer Sabotage and protection; Computer Crime; Software Piracy; Anti-Piracy; Computer Virus, Worm, Spyware; Ethical Issues in Computer; Cyber Law; Network Security; Hardware and Software Firewall; Data and message security; Encryption and Decryption

Unit 10: Introduction to Contemporary Technologies   4 LHs

Data Warehousing and Data Mining; BigData; Data Science; Artificial Intelligence; Machine Learning; Artificial Neural Networks; Cloud Computing; Green Computing; Virtual Computing; Blockchain Technology; Digital Marketing; Internet of Things; Remote Sensing and GIS; Business Intelligence; Social Media Strategies

Laboratory Works:

After Completing this course students should have practical knowledge of different hardware components of computer, operating systems (DOS and Windows Operating System), word processors, spreadsheets, presentation packages, database management systems, and Internet and its services.

Text Book:

1. Understanding Computers: Today and Tomorrow, Comprehensive, Morley, D., & Parker Charles S., 15th Edition, Cengage Learning, 2015.

Reference Books:

1. Introduction to Computers, Peter Norton's, Tata McGraw-Hill
2. Computer Fundamentals Concepts Systems and Applications, P K Sinha & Priti Sinha, BPB Publications
3. Fundamentals of Computers, V. Rajaraman, PHI Learning Pvt. Ltd.
4. Introduction to Information System, James A O'Brien and George M. Marakas, Fifteenth Edition, McGraw-Hill.

IT 232: C Programming
(BIM)

Nature of the course: Theory + Practical

Course Objective:
The main objective of this course is to familiarize students with different programming concepts using C programming language.

Course Description:
This course introduces the both theoretical and practical concepts of C programming language including introduction, basic elements, I/O, operators, control statements, arrays, functions, pointers, structures and unions, file handling, and graphics programming.

Course Details

Unit 1: Introduction to C Programming   **3 LHs**
> Introduction to Programming Language, Programming Approach: Top down and Bottom up Approach, Structured Programming, History of C, Algorithms, Pseudocode and Flowchart, Coding, Compilation and Execution, Structure of C program, Debugging.

Unit 2: Basic Elements of C   **3 LHs**
> C Standards, C Character Set, C Tokens, Escape sequence, Delimiters, Variables, Data types, Constants/ Literals, Expressions, Statements and Comments, Library Functions, Preprocessor Directives.

Unit 3: Data Input and Output   **3 LHs**
> Input/output operations, Conversion Specifications, Formatted I/O, and unformatted I/O.

Unit 4: Operators and Expression   **4 LHs**
> Arithmetic operator, Relational operator, Boolean operator, Assignment Operator, Ternary operator, Bitwise operator, Increment or Decrement operator, Conditional operator, Special Operators (sizeof operator), Evaluation of Expression, Operator Precedence and Associativity, Type Conversion

Unit 5: Control Structure   **5 LHs**
> Introduction, Conditional Statements, Decision Making and Branching, Decision Making and Looping, Exit function, Break and Continue.

Unit 6: Arrays and Strings   **6 LHs**
> Introduction to Array, Types of Array (Single Dimensional and Multidimensional), Declaration and Memory Representation of Array, Initialization of array, Character Array and Strings, Reading and Writing Strings, Null Character, String Library Functions.

Unit 7: Functions   **5 LHs**

Introduction of User defined functions, Library Functions vs. User defined functions, Function prototype, Function call, and Function Definition, Nested and Recursive Function, Function Arguments and Return Types, Passing Arrays to Function, Passing Strings to Function, Passing Arguments by Value, Passing Arguments by Address, Local and Global Variable, Scope visibility and lifetime of a variable.

Unit 8: Pointers   **5 LHs**

Introduction to pointers, Advantages and disadvantages of pointer The & and * operator, Declaration of pointer, Pointer to Pointers (Chain of Pointers), Pointer Arithmetic, Pointers and Arrays, Pointers and Character Strings, Array of Pointers, Pointers as Function Arguments, Function Returning pointers, Pointers and Structures, Dynamic Memory Allocation .

Unit 9: Structure and Union   **5 LHs**

Introduction, Declaration, Initialization, Array of structure, Passing structure to function, Passing array of structure to function, Nested Structure, Pointer to structure, Introduction to Union, Structure vs Union.

Unit 10: File Handling in C   **4 LHs**

Concept of File, Types of file (Text files and Binary Files), modes of file, Opening and closing of File, Input Output Operations in File, Random access in File.

Unit 11: Introduction to Graphics in C   **3 LHs**

Concepts of Graphics, Graphics Initialization and Modes, Graphics Function

Unit 12: Additional Features of C   **2 LHs**

Enumerations, C Macros, Command Line Parameters, Storage classes in C.

Laboratory Works:

Laboratory works should be done covering all the topics mentioned above. Each topic must be followed by a practical session.

Text Books:

1.   Byron Gottfried: "Programming with C," Fourth Edition, McGraw Hill Education.
2.   Brian W. Keringhan, Dennis M. Ritchie, The C programming Language, Second Edition, PHI Publication.

Reference Books:

1.   Deitel, & Deitel, "C: How to Program", Ninth Edition, Pearson Publication.
2.   Al Kelley, Ira Pohl: "A Book on C", Fourth Edition, Pearson Education.
3.   Yeshvant Kanetkar, " Let Us C", 17 th Edition, BPB publication, 2020.
4.   Herbert Schildt, C The Complete Reference, Fourth Edition, Osborne/McGraw- Hill Publication.
5.   K.N. KING: C Programming: A Modern Approach, Second Edition
6.   E. Balagurusamy, Programming in ANSI C, Eigth Edition, TMH publication, 2019

MGT 231: Foundation of Business Management
(BIM)

Course Objectives:

The course aims to impart the knowledge of fundamental management principles and integration of those principles with the real time business situation and managerial activities that they have to perform in future so as to enhance their managerial capability and enable them to apply in the practical field. The course will remain important in the development of the soft skills of the students.

Course Description:

This course covers introduction of the management that covers the concept, functions and roles of a manager and business environment and their analysis for the purpose of business use. It also incorporates major principles of management that covers classical and recent management principles. Similarly it covers some fundamental concepts and philosophies of business ethics and social responsibility. The fundamental functions of a manager has also been incorporated in the course with the Nepalese management practices.

Learning Outcomes:

On completion of this course, the student will be able

a. To understand the concept of business, management and business management, role and functions of manager and analysis of business environment using porter model.
b. To understand the unethical behaviour in business and ethical behaviour as well the additional social responsibility of the business.
c. To know the philosophical aspects of management with the understanding of management culture
d. To know the functions of a manager and develop skill to apply them in practice.
e. To communicate, present and play as a role of manager with the development of soft skills.
f. To understand business management trends and scenario in Nepal

Learning Strategies:

- *Quizzes/ Surprise Test:* Quizzes to be taken individually without prior information. The quizzes is to be taken using objective questions covering the related text chapter materials.
- *Project & Live Projects*: The students should work in team for producing live project report as a part of experiential learning. They should go to the field, collect real time data and develop report. They also should present it in the class within 10 minutes of each group.
- *Case analysis:* The students should submit analysis of the cases provided by the course instructor reflecting the text/ practice related problems, genesis of the problems. It may be presented in class too.

- *Assignments:* The students tend to develop and deliver a presentation of 15 minutes on contemporary issues that are worthy enough. Home assignment in preparation of term paper can be provided.
- *Simulation:* The students need to participate in the activities that are set inside the class room. Course Convenor should provide issues and make practice as in real life situation.
- *Term paper & Thematic review:* The course convenor should provide issues that are importantly raised in the society and ask students to review related articles and develop the theme as the part of term paper and ask them to present in the class.
- *Oral Presentation:* The convenor should provide issues a day before and ask them to speak 5-10 minutes without any supportive materials in the class.

Course Details:

Unit 1: Introduction   6 LHs

Concept of management and business management, the management process, type of managers (general, functional and line managers), basic managerial roles and skills, changing job of managers, management challenges, acquaintance to task and general environment of business and analysis of task environment using Porter model.

Activities: Preparation of company profile focusing task environment and case analysis.

Unit 2: Philosophical Aspects of Management   6 LHs

The classical philosophy (scientific management, administrative management and bureaucratic management), behavioural management philosophy (human relation movement and Hawthorne studies), system and contingency philosophy and emerging issues and challenges in Nepalese business.

Activities: Surfing and finding out the techniques of using these theories in practice and presenting in class.

Unit 3: Business Ethics and Social Responsibility   4 LHs

Ethical issues in management, the roots of unethical behaviour, philosophical approaches to ethics, social responsibility of business and arguments for social responsibility and Friedman doctrine.

Activities: Oral presentation on social and ethical issues in Nepalese business and society and case analysis.

Unit 4: Planning and Decision Making   7 LHs

Planning: Meaning and levels of planning, planning horizons, planning process, meaning and use of single use, standing, contingency and derivative planning, pitfalls and their improvement in planning.

Decision Making: Concept of decision making, process of rational decision making, type of problems and decision making, decision making conditions and styles.

Activities: Simulation and case analysis

Unit 5: Organizational Architecture   7 LHs

Meaning and concept of organizational structure and architecture, elements of organizational architecture, designing structure: vertical differentiation (Tall Vs. Flat), horizontal differentiation (Functional, multidivisional, geographical and matrix), and

integrating mechanisms (formal knowledge network and strategy, coordination and integrating mechanisms), definition and source of authority, responsibility and accountability and creating accountability in business organizations, emerging issues in organization design and architecture, Nepalese practices in organizational structure.
Activities: Project work and case analysis.

Unit 6: Organizational Culture   4 LHs
Meaning and concept of organizational culture, importance of organizational culture, change and strengthening organizational culture, managing organizational culture during merger, organizational culture in Nepalese organization.
Activities: Term paper on culture after merger and case analysis

Unit 7: Group and Team   4 LHs

Meaning of team and group, difference between team and group, importance of team in organization, creating effective team, types of group and team, managing team conflict, position of team work in Nepalese organization.

Activities: Simulation and case analysis.

Unit 8: Communication and Control   5 LHs
Meaning of business communication, communication process, parties involved in communication, communication barriers and their improvement, meaning, process and types of control, essentials of effective control system, control tools and techniques.
Activities: Simulation, oral presentation and case analysis

Unit 9: Business Management Trends and Scenario in Nepal   5 LHs
Growth of business sector in Nepal, major industries in Nepal – manufacturing, export – oriented, import- substitution, and service sector, existing management and business practices in Nepalese business, major problems of Nepalese business
Activities: Live project and presentation

Reading Materials:

Charles W. L. Hill & Steven L. McShane (2008). *Principles of Management*. Irwin: McGraw-Hill.

Stephen P. Robins & David A. Decenzo (2008). *Fundamentals of Management*. Delhi: Pearson Education Inc.

Ricky W. Griffin (2012). *Management Principles and Applications*. New Delhi: CENGAGE Learning

Chalise, M. & Gautam, P. K. (2021). *Principles of Management*. Kathmandu: KEC Publication and Distributors (P.) Ltd.

MTH 204: Basic Mathematics
(BIM)

Course Objectives

The purpose of this basic mathematics course is to increase students' mathematical knowledge and skill required to understand management, IT and computing courses as it applies to many aspects of business and to help make them a more valuable player in the business arena.

Course contents

Numbers and their properties. Introduction to complex numbers, Concepts of Functions, Limits and Continuity. Differentiation and Its Application in business and economics. Concepts of integration and its application. Differential Equations. Concept of vectors and matrices. Method of least square.

Course Details

Unit 1: Set Theory and Real Number System   6 LHs

Concept, notation and specification of sets, Types of sets, Relation between sets, Venn diagrams, Operations on sets. Laws of algebra of sets (without proof), Number of elements in a set and the problems relating up to three sets. Sets of numbers (Natural numbers, Integers, Rational numbers, Irrational numbers, Real numbers), Representation of real numbers on the real line. Properties (addition multiplication, cancellation, distributive, order) of real numbers (without proof), Inequalities and their properties. Intervals, Modulus of a real number and its properties.

Unit 2: Complex Numbers   4 LHs

Definition of a complex number, Integral powers of i, Algebra of complex numbers (sum, difference, multiplication, division), Properties of complex numbers, Conjugate of a complex number and its properties, Modulus of a complex number and its properties, Representation of a complex number by a point in a plane (Argand's diagram), Polar representation of a complex number, Square roots of a complex number, De-Moivre's theorem (statement only) and its application to find up to cube roots of a complex number.

Unit 3: Functions, Limits and Continuity   6 LHs

Constant and variable, Concept of functions, Types of functions, Graphic representation of algebraic, logarithmic and exponential functions, Computation of functional values, Domain and range of a function. Application of functions to business and economics. Idea of a limit, Limit of a function at a particular point and at infinity, Properties of limits (without proof) and use in evaluating limits involving algebraic functions. Concept of continuity and discontinuity, Test of continuity and discontinuity for simple algebraic functions.

Unit 4: Differentiation and Its Application   8LHs

Average rate of change, Definition of derivative, Derivative as a slope of tangent to the curve, Differentiation by the first principle of algebraic, logarithmic and exponential functions, Methods of differentiation (power rule, sum rule, product rule, quotient rule chain rule), Differentiation of implicit and parametric functions, Increasing and decreasing function, Stationary point, Point of inflection, Higher order derivatives (up to 3rd order). Economic applications of derivatives for maximum and minimum points.

Unit 5: Integration and Its Application   6 LHs

Concept of integration, Techniques of integration (Standard forms, Substitution method, Integration by parts), Integration of algebraic, logarithmic and exponential functions. Definite integral, Methods of evaluating definite integrals, Area under a curve, Application of integration in business and economics (including consumer's surplus and producer's surplus).

Unit 6: Differential Equations   5 LHs

Introduction to differential equation, Order and degree of a differential equation, Solution of a differential equation, General and particular solutions. Equations of the first order and first degree: a) variables separated from b) homogeneous equations c) linear equations (without involving trigonometric functions).

Unit 7: Vectors   5 LHs

Definition of a vector in a plane and space, Directed line segment, Magnitude of a vector, Types of vectors, Multiplication of a vector by a scalar, Addition of vectors, Parallelogram law of addition of vectors, Collinear and coplanar vectors, Linearly dependent and independent vectors, Scalar product of two vectors, Orthogonal vectors, Vector product of two vectors. Numerical Exercises

Unit 8: Matrices and Determinants   6 LHs

Introduction of matrices, Types of matrices, Equality of matrices, Algebra of matrices, Transpose of a matrix. Determinant of a Square matrix, Minors and cofactors of matrix, Singular and non-singular matrix, Adjoint and inverse of matrices. Solution of a system of linear equations up to three variables (Cramer's rule, Inverse matrix method, Gaussian elimination method).

Unit 9: Least square method   2 LHs

Introduction to least square method, Line of best fit (two variables only), Measurement of trends, Method of least square for time series analysis.

References

Anthony Martin and Biggs Norman, *Mathematics for Economics and Finance: Methods And Modelling*, Cambridge University Press.

Bradley Teresa, *Essential Mathematics for Economics and Business* 4th Edition, Wiley.

Brechner Robert, *Contemporary Mathematics for Business and Consumers*, Thomson South-Western.

Dowling Edward, *Schaum's Outline* of *Mathematical Methods for Business and Economics*, McGraw-Hill.

George B. Thomas and Ross L. Finney, *Calculus with Analytic Geometry*, Addison – Wesley, 9th Edition.

Rosser Mike and Lis, Piotr, *Basic Mathematics for Economists* 3rd Edition. Routledge.

Taro Yamane, *Mathematics for Economics*, Prentice-Hall of India, New Delhi, 2nd Edition (An Elementary Survey).

Wegner Trevor, *Applied Statistics: Methods and Excel-Based Application*, Juta Academics.