

Tribhuvan University  
**Faculty of Management**  
**Office of the Dean**



Course detail of  
BBA (Bachelor of Business Administration) 2<sup>nd</sup> Semester

August 2022

# Business Mathematics II

(BBA Second Semester)

Credits: 3

Lecture Hours: 48

## Course Objectives

The course introduces mathematical techniques through examples of their application to economic and business concepts. It also tries to get students tackling problems in economics and business using these techniques as soon as possible so that they can see how useful they are.

The purpose of the course, then, is to present mathematical skills and concepts, and to apply them to ideas that are important to the management students. In addition, the course includes the basics of spreadsheet operations relating to applications of integration in business and economics, linear programming, Solving linear equations by matrix and determinant methods, application of differential equation, applications of difference equations and some numerical methods as well.

## Course Description

This course deals on integration and applications in production, first-order differential equations and applications, dynamics of market price, linear inequalities and linear programming, linear algebra and applications, numerical methods for solving systems of linear equations, input/output analysis, functions of several variables and their applications in business and economics, difference equations and dynamic economic analysis.

## Course Details

### Unit 1: Integration and applications

8 LHs

Concept of integration, Techniques of integration (Standard form, substitution method and integration by parts), Integration of algebraic, logarithmic and exponential functions, Methods of evaluating definite integrals, Application of integration in business and economics ( including consumers' surplus and producers' surplus), Area under a curve.

### Unit 2: Linear inequalities and linear programming

6 LHs

Linear Inequalities in two variables, Introduction to linear programming problem, Formulation of linear programming problem, Methods of solving linear programming problems: Graphical method, Simplex method (two variables), Duality and standard minimization linear programming problems.

Online: Simplex method

### Unit 3: Linear algebra and applications

7 LHs

Introduction to matrices and types of matrices, Operation on matrices: Addition and subtraction of matrices, Scalar multiplication of a matrix, Multiplication of matrices, Transpose of matrix, Determinant of a square matrix, Minors and cofactors of matrix, Singular and non-singular of matrix, Adjoint and inverse matrices, Elementary row operations, Methods of solving linear equations: Cramer's rule, Inverse matrix method (Application of linear equation for solving business and economics related problems), Gauss elimination method and Gauss- Jordan method, Input/output analysis, Technology coefficient matrix, Hawkins-Simon conditions for the viability of the system.

**Lab. Work:** Excel for linear algebra

Online: Gauss elimination method for solving system of linear equations, Gauss-Jordan method for solving system of linear equations and finding inverse matrices.

**Unit 4: Functions of several variables**

**9 LHs**

Functions of several variables, Applications of functions of two variables in business and economics, Partial differentiation, Applications of partial differentiation, Elasticity of demand, Utility, Production, Graphical Representations, Unconstrained optimization, constrained optimization and Lagrange multipliers.

**Unit 5: First-order differential equations and applications**

**9 LHs**

Introduction to differential equation, Order and degree of differential equation, Solution of differential equations, First-order linear differential equations with constant coefficient and constant term, Differential equation for limited and unlimited growth, Dynamics of market price, First order differential equation with variable- coefficient and variable term, Exact differential equations, Nonlinear differential equations of the first order and first degree.

**Unit 6: Dynamic economic analysis and Difference equations**

**9 LHs**

Introduction to difference equations, Solution of first order difference equations (homogeneous and non-homogeneous), Economic applications of first order difference equation: Cobweb model, Lagged Keynesian macroeconomic model, Duopoly price adjustment.

**References**

Alpha C. Chiang, **Fundamental Methods of Mathematical Economics**, McGraw-Hill, Inc.

Frank S. Budnick, **Applied Mathematics for Business, Economics, and the Social Sciences**, McGraw-Hill Ryerson Limited.

G. S. Monga, **Mathematics for Management and Economics**, Vikas Publishing House Pvt. Ltd., New Delhi.

Mike Rosser, **Basic Mathematics for Economists**, Routledge Taylor & Francis Group.

Ronald J. Harshbarger, James J. Reynolds, **Mathematical Applications for the Management, Life, and Social Sciences**, Houghton Mifflin Company.

Srinath Baruah, **Basic Mathematics and its Application in Economics**, Macmillan India Ltd.

Teresa Bradley, **Essential Mathematics for Economics and Business**, John Wiley & Sons Ltd.

Vassilis C. Mavron, Timothy N. Phillips, **Mathematics for Economics and Finance**, Springer-Verlag.

# Database Management System

(BBA 2<sup>nd</sup> semester)

*Credits: 3  
Lecture Hours: 48*

## Course Objective

The main objective of this course is to introduce different concepts of database, data modeling with ER diagram, features SQL, normalization, transaction processing, concurrency control, database recovery and some advanced database topics.

## Course Description

The course covers different concepts of database management systems including database system concepts and architecture, ER diagram, relational model, SQL, normalization, transaction processing, concurrency control, and database recovery. This course also covers some advanced concepts of databases such as performance tuning, security, parallel and distributed database, data warehousing, data mining and bigdata.

## Course Details

### Unit 1: Database Concepts and Architecture

**4 LHs**

Database, Database Management System, Database Users, and Benefits of Databases; Data Models, Schemas, and Instances; Three-Schema Architecture and Data Independence; Database Languages and Interfaces; the Database System Environment; Centralized and Client/Server Architectures for DBMSs; Classification of Database Management Systems.

### Unit 2: Data Modeling Using Entity-Relational Model and Relational Model

**8 LHs**

Using High-Level Conceptual Data Models for Database Design; Entity Types, Entity Sets, Attributes, and Keys; Relationship Types, Relationship Sets, Roles, and Structural Constraints; Weak Entity Types; ER Diagrams, Naming Conventions, and Design Issues; Relationship Types of Degree Higher Than Two; Concepts of Specialization and Generalization; Constraints and Characteristics of Specialization and Generalization; Converting ER Schema to Relational Schema; Structure of the Relational Database.

### Unit 4: SQL

**12 LHs**

Data Definition and Data Types; Specifying Constraints; Basic Retrieval Queries; Complex Retrieval Queries; INSERT, DELETE, and UPDATE Statements; Views.

### Unit 5: Relational Database Design

**8 LHs**

Informal Design Guidelines for Relational Schemas; Functional Dependencies; Normal Forms Based on Primary Keys; General Definitions of Second and Third Normal Forms; Boyce-Codd Normal Form; Multivalued Dependency and Fourth Normal Form; Properties of Relational Decomposition.

### Unit 6: Transaction Processing and Concurrency Control, and Recovery

**8 LHs**

Introduction to Transaction Processing; Transaction and System Concepts; Desirable Properties of Transactions; Serializable Schedule; Two-Phase Locking and Timestamp Ordering Concurrency Control Techniques.

**Unit 7: Database Recovery Techniques****4 LHs**

Recovery Concepts; NO-UNDO/REDO Recovery Based on Deferred Update; Recovery Technique Based on Immediate Update; Shadow Paging; Database Backup and Recovery from Catastrophic Failures.

**Unit 8: Advanced Topics****4 LHs**

Database Performance Tuning; Database Security; Concept of Parallel and Distributed Databases; Concept of Data Warehousing and Data Mining, BigData, and NoSQL databases.

**Laboratory Works:**

The laboratory work includes writing SQL statements to create databases and tables, inserting and deleting data, updating data, and writing select queries.

**Text Books:**

1. Fundamentals of Database Systems; Seventh Edition; RamezElmasri, Shamkant B. Navathe; Pearson Education
2. Database System Concepts; Sixth Edition; AviSilberschatz, Henry F Korth, S Sudarshan; McGraw-Hill
3. NoSQL for Dummies; Adam Fowler; John Wiley & Sons, Inc.
4. Principles of Distributed Database Systems; M. Tamer Ozsü and Patrick Valduriez; Fourth Edition; Springer 2020

**Reference Books:**

1. Database Management Systems; Third Edition; Raghu Ramakrishnan, Johannes Gehrke; McGraw-Hill
2. A First Course in Database Systems; Jaffrey D. Ullman, Jennifer Widom; Third Edition; Pearson Education Limited

# English-II

(BBA 2nd Semester)

*3 credits*

*Lecture Hours: 48*

## Course Objectives

After completing this course, students will be able to:

- read texts written in various general and other disciplinary discourses;
- describe things and events in English;
- understand and support arguments;
- understand and use appropriate tone and style in writing;
- match audience with the purpose and medium of communication;
- see new angles on a range of academic topics;
- read and write persuasively in English;
- adapt content to purpose, context and audience;
- use appropriate style and tone of writing for general and business purposes;
- develop specific speaking and listening skills;
- work in key areas of English use;
- avoid the most common errors;
- get access to the academic language needed to succeed;
- generate individual ideas and opinions by being exposed to a fresh approach to critical thinking;
- learn language through literature.

## Course Description

The English 202 is a course in general English and it takes a two-way approach to improve students' English language proficiency. It seeks to develop their reading and writing skills, their understanding of tone, style, and knowledge of communication methods, along with developing their vocabulary, grammar, listening and speaking, and ability to write general and to some extent professional documents. This course is so planned as to introduce students to methods and techniques of developing their English language and communication skills for general communication, and furthermore to develop their English on a broader level in various areas of thinking and knowledge by being exposed to writings from different genres and disciplines.

The course has two main components of equal weightage:

### I. Core English

## **II. Genres and Disciplines**

### **Course Details**

#### **I. Core English**

##### **Unit 1. 6 LHs**

1. Globalization
2. Education
3. Medicine

##### **Unit 2. 6 LHs**

4. Risk
5. Manufacturing
6. Environment

##### **Unit 3. 8 LHs**

7. Architecture
8. Energy
9. Art and design
10. Ageing

##### **Unit 4. 4 LHs**

11. Writing guide
12. Grammar reference

#### **II. Genres and Disciplines**

##### **Unit 1. Short Stories 6 LHs**

1. The Empty Drum
2. A Tale
3. Amina
4. The Andhi Kholā
5. The Dog of Titwal

##### **Unit 2. Poems 6 LHs**

6. New Year
7. In Just-
8. Dream Variations
9. The Brook
10. The Song
11. Now Light Has Come

**Unit 3. Plays**

**3 LHs**

12. The Sandbox

**Unit 4. Essays**

**9 LHs**

13. On Natural Death
14. A Change of Worlds
15. Hearts of Sorrow
16. Fundamentals of Scientific Management
17. The Green Frog Skin
18. The Right to Control One's Learning
19. The Myth of Sisyphus
20. The Enlightened Mind

**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. The recommended approach is to view the books not as mere language texts but to introduce students to many disciplines, to expand their intellectual and spiritual horizons. 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. Questions will be given from all the different units.

**Prescribed Texts**



Sowton, Chris. *Unlock Level 4: Reading and Writing Skills Student's Book*. Cambridge UP, 2014.

Lohani, S.P., comp, & ed. *Voices: A Reader*. Buddha Publication, 2021.

### **Supplementary Materials**

*Cambridge Advanced Learner's Dictionary*. 4th ed., Cambridge UP, 2020.

Sowton, Chris. *Unlock Level 4: Reading and Writing Skills Student's and Teacher's interactive eBooks*. Cambridge UP, 2014.

Stirling, Johanna. *Unlock Level 4: Reading and Writing Skills Teacher's Book with DVD*. Cambridge UP, 2014.

Abrams, M. H., and G.G. Harpham. *A Glossary of Literary Terms*. 11<sup>th</sup> ed., Cengage, 2014.

Klarer, Mario. *An Introduction to Literary Studies*. 3<sup>rd</sup> ed., Routledge, 2013.

# Financial Accounting

(BBA Second Semester)

*Nature of course: Core*

*Full Marks: 60*

*LHs: 48*

*Pass Marks: 30*

## Course Objectives

The main objective of this course is to provide in-depth knowledge and understanding of basic principles, concept and practices of financial accounting. This course also aims to develop students' understanding on business transactions, record such transactions in an accounting system and enable them to prepare and analyze the basic financial statements.

## Course Description

This course contains conceptual and theoretical foundation of financial accounting; processing and recording business transactions; accrual accounting concept; adjusting entries, closing entries,; preparation of basic financial statements like profit and loss account, balance sheet and cash flow statement and their analysis.

## Course Details

### Unit 1: Basic Understanding of Financial Accounting 2 LHs

Financial accounting: concept, features, objectives and scope; Book-keeping, accounting and accountancy; Nature of accounting; Qualitative features of accounting information; Users and uses of accounting information: internal users and external users; Elements and components of financial statement; Limitations of financial accounting.

### Unit 2: Conceptual Framework of Accounting 3 LHs

GAAP and its features; Basic accounting concepts: the business entity concept, the monetary concept, the going concern concept, the cost concept, the dual aspect concept, the accounting period concept, the realization concept, the accrual concept and the matching concept; Basic accounting conventions: consistency, conservatism, materiality and full disclosure;

Differences between accrual versus cash basis of accounting; Differences between accounting and accountancy;

Accounting standards: meaning, nature, need, significance and classification of accounting standards; Concept of Nepal Accounting Standards (NASs), International Accounting Standards (IASs), Nepal Financial Reporting Standards (NFRSs), International Financial reporting Standards (IFRSs); Disclosures required as per NFRS

### **Unit 3: Accounting Process**

**8 LHs**

Accounting events of business: concept and types; Accounting equation for analyzing the transactions; Debit and credit and their rules; Recording process of accounting events: journal, ledger, and trial balance. Opening and closing entries: concept and types of closing entries; Adjusting entries: concept and types of adjusting entries; Prepaid and outstanding items; Adjusted trial balance.

### **Unit 4: Accounting for Cash and Bank Reconciliation Statements**

**4 LHs**

Concept of cash and bank; Types of bank account; Cheques: concept and types, parties to a cheque, honor and dishonor of cheque; Bank Statement: concept and importance; Preparation of bank reconciliation statement.

### **Unit 5: Accounting for Property, Plant and Equipment**

**4 LHs**

Concept, features and types of property, plant and equipment; Acquisition cost of property, plant and equipment; Depreciation of property, plant and equipment: Straight-line method, diminishing balance method, and unit of activity method; Choice of depreciation method; Disposal of property, plant and equipment; Impact of depreciation on profit measurement; Intangible assets: concept and types; Capital versus Revenue: concept and types.

### **Unit 6: Basic Financial Statements**

**18 LHs**

Financial statements: concept, objectives and limitations;

Basic Nepal Accounting Standards (NASs): NAS 1: Presentation of financial statements, NAS 2: Inventories, NAS 7: Statement of cash flow, NAS 8: Accounting policies, changes in accounting estimates and errors, NAS 10: Events after reporting period, NAS 16: Property, plant and equipment

Preparation of financial statement under NFRS:

Statement of Profit or Loss (Income Statement): concept, types and components of profit or loss statement

Statement of financial position (Balances Sheet): concept, purpose, components and preparation of classified statement of financial position or balance sheet;

Statement of other comprehensive income: concept, components and preparation of other comprehensive income statement;

Statement of changes in equity: concept, components and preparation of statement of changes in equity.

Cash Flow Statement: Meaning, objectives and limitations of cash flow statement; Contents of cash flow statement; Preparation and interpretation of cash flow statement using balance-sheets of single and two periods under direct and indirect method.

### **Unit 7: Value Added Statement**

**3 LHs**

Value added: concept and its application; Value added statement: concept, advantages and preparation of value added statement showing value added generated and applied.

## **Unit 8: Analysis of Financial Statement**

**6 LHs**

Meaning, objectives, need and importance of financial statement analysis; Types of financial statement analysis: Horizontal, vertical and trend analysis, comparative and common size statement analysis and their application.

Ratio analysis: Concept, uses, importance and limitations of ratio analysis; Types, computations and interpretations of: liquidity (current ratio and quick ratio), capital structure (debt-equity ratio, debt to total capital ratio, interest coverage ratio and debt coverage ratio), efficiency (stock turnover ratio, receivable turnover ratio including collection period, payable turnover ratio including payable period, total assets turnover ratio, capital employed turnover ratio), profitability (gross profit ratio, net profit ratio, operating ratio, return on equity, return on total assets and return on common shareholders equity) and earning evaluation ratios (EPS, DPS and price-earnings ratio) for evaluating the financial performance of the business.

### **Suggested Readings**

Accounting Standards Board, (2018). Nepal Financial Reporting Standards Kathmandu: ASB.  
Greunung & Keen, (2000). International Accounting Standards. A Practical Guide, USA: World Bank

Narayanaswamy. R. *Financial Accounting: A Managerial Perspective (Fourth Edition)*. New Delhi: PHI Learning Private Limited.

NFRS (2014). Nepal Accounting Standards. Kathmandu: ASB.

Porter. G. & Norton, C. L. *Introduction to Financial Accounting (8<sup>th</sup> Edition)*. Delhi: Cengage Learning India Private Limited.

# Macro Economics for Business

BBA 2nd Semester

*Credit: 2*

*Lecture Hours: 32*

## Course Objective

This course aims to provide an understanding of macroeconomic principles, issues, and policies so that students can assess their effects on business environment, especially in the Nepali context.

## Course Description

This course comprises fundamentals of macroeconomics, measurement, and structure of the national economy, consumption, saving and investment, theory of income and employment, macroeconomic issues, and policies.

## Course Learning Outcomes

By the completion of the course students will be able to:

- Explain the nature of macroeconomics and the circular flow of income and expenditure and also assess the effect of macroeconomic variables and policies on the economic environment for business.
- Measure the national economy in terms of Gross Domestic Product (GDP) and analyze other national accounts.
- Derive consumption function, saving function, investment function, investment multiplier, government expenditure multiplier, tax multiplier, and foreign trade multiplier.
- Determine the equilibrium level of income and employment in the Classical, Keynesian, and IS-LM models.
- Discuss the concepts and causes of inflation, unemployment, and business cycles, assess their effects on business and the national economy and also explain other macroeconomic issues.
- Describe monetary policy, and fiscal policy and explore the effect of change in monetary policy and fiscal policy instruments in the economic environment of business.

## Course Details

### Unit 1: Fundamentals of Macroeconomics

**3 LHs**

Nature of macroeconomics; Effect of macroeconomic variables and policies on economic environment for business; and Circular flow of income and expenditure in a closed and open economy.

### Unit 2: The Measurement and Structure of the National Economy

**5 LHs**

Gross Domestic Product (GDP): concepts and measurement; Other national accounts: GNP, NNP, NI, PI, DI, GNDI and per capita income; Concept of Green GDP, Real GDP, price indexes and inflation; Saving and wealth; and Interest rates: nominal and real interest rates.

**Unit 3: Consumption, Saving and Investment****4 LHs**

Consumption function: concept, technical attributes and determinants; Saving function: concept and technical attributes; and Investment function: concept and types, marginal efficiency of capital, investment function, and determinants of investment.

**Unit 4: Theory of Income and Employment****10 LHs**

Classical theory of employment and output; Keynesian theory of income determination: two sector model, three sector model, four sector model; Multiplier: investment multiplier, government expenditure multiplier, tax multiplier and foreign trade multiplier; Paradox of thrift; and IS-LM model: derivation of IS and LM curves, determination of equilibrium output and effect in equilibrium output due to change in monetary policy and fiscal policy.

**Unit 5: Macroeconomic Issues and Policies****10 LHs**

Inflation: demand-pull inflation and cost-push inflation, measurement and effects; Unemployment: concepts, types and costs; Business cycles: phases; Economic growth and development: concepts and determinants; Balance of payments: concepts and components; Exchange rate: concept, fixed vs flexible exchange rate; Financial inclusion: concept and determinants; Fiscal federalism: concept and components; Public-private partnership: concepts; Monetary policy: concept, objectives and instruments; Fiscal policy: concept, instruments and objectives.

**Basic Books**

Abel, A.B. and Bernanke, B.S. Macroeconomics, New Delhi, Pearson Education. Latest Edition  
Dwivedi, D.N, Macroeconomics: Theory and Policy, New Delhi, Tata McGraw Hill Education. Latest Edition

**References**

Sloman, J. and Sutcliffe, M. Economics for Business, New Delhi, Pearson Education. Latest Edition  
Shreshtha, R. G. and Adhikari, G. M. Macroeconomics for Business: Theories and Applications, Kathmandu, KEC Publication. Latest Edition  
Various publications and journals of NRB, OECD, ADB, CBS, World Bank, Ministry of Finance, National Planning Commission and so on.

# **Seminar on Contemporary Issues of Macroeconomics**

## **BBA-II**

Credit: 1

Lecture Hours: 16

### **Course Objective**

The purpose of this course is to provide practical exposure to contemporary macroeconomic issues and policies from a global and Nepalese perspective through seminar paper presentations so that students can assess the macroeconomic effect on business.

### **Course Description**

This course focuses on the concept and methods of seminar paper presentation on one side and the other side it comprises recent situation, growth, and trends of the global and national economy in the area of inflation, monetary policy, government budget, national accounts, foreign employment, foreign direct investment, financial inclusion, public-private partnership, and fiscal federalism.

### **Course Learning Outcomes**

By the completion of the course students will be able to:

- Get the skills to develop a seminar paper and present it
- Describe monetary policy, fiscal policy, and inflation of Nepal and explore their effectiveness in business
- Analyze and present the national accounts of Nepal
- Discuss privatization, economic liberalization, foreign employment, foreign direct investment, financial inclusion, public-private partnership, and fiscal federalism in Nepal
- Assess the effect of the global economy on business

### **Learning strategies**

- The student will extensively review the conceptual paper/ theoretical paper/research paper on the basis of theoretical and empirical review
- Students need to prepare the paper with the close guidance of a Faculty member/course instructor
- Faculty member reviews and accepts or advises on the revision of the review-based paper
- Upon completion of the review paper, the student submits a final review paper to the faculty member at the department/campus
- Student should appear in a seminar (presentation of review paper) that will be evaluated by concerned faculty members and other experts.
- Faculty members and experts jointly award the grades.

### **Course Details**

#### **Unit 1: Theoretical Orientation**

**7 LHs**

Concept of seminar, webinar, workshop, symposium, conference and training; Seminar paper and its structure; Procedure for article searching, article reading, drawing materials for a seminar paper, seminar paper writing, and seminar paper presentations; Introduction to issues/theme of seminar and concept of a thematic review

## **Unit 2: Development and Presentation of Paper**

**9 LHs**

The faculty member/course instructor will give contemporary macroeconomic issues from global and Nepalese perspectives. Students will review a number of related articles/papers on given issues and develop the slides for presentation and thematic paper as the outcome of the seminar.

### **Evaluation**

A student is required a review-based research assignment and prepares a seminar paper at the end of the session. The seminar paper must be presented in the format as prescribed by the concerned faculty/ course instructor. Evaluation of the seminar paper and presentation shall be based on the following bases:

- Written Report (Seminar paper): 70 %
- Presentation: 30%

### **Issues/Themes Elaboration**

- Inflation of Nepal
- Monetary policy of Nepal
- Government budget of Nepal
- National accounts of Nepal
- Privatization and economic liberalization in Nepal
- Foreign employment and remittance in Nepal
- Foreign direct investment in Nepal
- Financial inclusion in Nepal
- Public-private partnership in Nepal
- Fiscal federalism in Nepal
- Growth and trends of the global economy

Faculty member/course instructor can assign topics of contemporary economic issues other than those above.

### **References**

Monetary policy of Nepal Rastra Bank, Budget of the government of Nepal, National Accounts published by Central Bureau of Statistics, publications of World Bank, IMF, ADB, articles, critical books, and reports published by national and international organizations/ researchers on contemporary economic issues.