

**Scheme of Studies
for
MA (Education)**



**DEPARTMENT OF EDUCATION
GC UNIVERSITY, FAISALABAD**

Scheme of Studies for MA (Education)
Duration: Two Years (4 Semesters)

Course Code	Course Title	Credit Hours
SEMESTER-1		
Edu-701	Philosophy of Education	3(3-0)
Edu702	Introduction to Educational Psychology	3(3-0)
Edu-703	Sociology of education	3(3-0)
Edu-704	Educational Management & Supervision	3(3-0)
Edu-705	Curriculum Development & Implementation	3(3-0)
Edu-707	Quantitative Research Methods in education	3(3-0)
		CH: 18
SEMESTER-11		
Edu-708	Qualitative Research methods in education	3(3-0)
Edu-709	Educational Technology	3(3-0)
Edu-710	Education in Pakistan	3(3-0)
Edu-711	Teaching Profession	3(3-0)
Edu-712	Educational Measurement & Evaluation	3(3-0)
Edu-713	Computer Application in Education	3(3-0)
Edu-714	One content improvement course from the following <ul style="list-style-type: none"> • Content improvement course in Urdu • Content improvement course in English • Content improvement course in Social Studies • Content improvement course in Physical Science 	3(3-0)
		CH: 21
SEMESTER-111		
Edu-715	Comparative Education	3(3-0)
Edu-716	Contemporary Trends & Issues in Education	3(3-0)
Edu-718	Area of specialization-I	3(3-0)
Edu-719	One course of teaching methodologies from the following <ul style="list-style-type: none"> • Methods of teaching Urdu • Methods of teaching English • Methods of teaching Social Sciences • Methods of teaching Physical Sciences 	3(3-0)
Edu-720	Thesis	6
		CH:18
SEMESTER-IV		
Edu-721	Guidance & Counseling in Education	3(3-0)
Edu-722	Area of Specialization-2	3(3-0)
Edu-723	Educational Change	3(3-0)
Edu-724	Teaching Practice/ Internship in educational Institutions	3
Edu-725-A	Two Course as substitute of thesis Report Writing in Educational Research	3(3-0)
Edu-725-B	Statistical Application In Education	3(3-0)
Edu-720	Thesis Continued	6
		CH: 18

Total Credit Hours: 75

Areas of Specialization

The students will select any two courses from any one area of specialization. Area of specialization will be offered subject to availability of teachers.

Edu-718 A: Educational Management

Edu-718 A (I): Educational Planning & Financing

Edu-718 A (II): Human Resource Management

Edu-722 A: (I) Seminar in Educational Management

Edu-722 A: (II) Personnel Management

Edu-722 A: (III) Educational Law

Edu-718 B: Educational Psychology

Edu-718 B :(I) Psychology of Exceptional Children

Edu-718 B :(II) Theory and Application of Psychological Testing

Edu-718 B :(III) Human Development

Edu-722 B : (I) :Personality theories

Edu-722 B : (II) : Seminar in Educational Psychology

Edu-718 C: Curriculum and Instruction

Edu-718 C (I): Theories &Models of Curriculum

Edu-718 C (II): Curriculum Development and change

Edu-718 C (III): Comparati ^{Notepad.lnk} ve Curricula of the World

Edu-722 B (I): Curriculum Implementation and Practices

Edu- 722 B (II): Seminar in Curriculum and Instruction

Philosophy of Education

Course Code: EDU- 701

Credit hrs: 3

Course objectives

At the conclusion of the study of this course, the students will be able to:

- Explain, describe and use correctly the significant terms/concepts of philosophy.
- Identify and describe the essential differences between general philosophies.
- Explain the implications and applications of general philosophies in terms of the concepts of reality, theory of knowledge and theories of values on society and particularly Education.
- Explain the application of each type of philosophy of education to educational issues such as aims, curriculum, teaching methods etc.
- Apply philosophical methods to the examination of educational problems/issues.

1. Introduction to Philosophy of Education

- a) What is philosophy?
 - Origin and development
 - Meaning and significance
- b) Basic concepts of philosophy
 - Ontology
 - Epistemology
 - Axiology
- c) Styles of Philosophy
 - Speculation
 - Analytical
- d) Philosophy of Education
 - Definition and explanation
 - Functions of Educational Philosophy

2. General Philosophies

- a) Idealism
- b) Realism
- c) Pragmatism
- d) Existentialism

3. Contemporary philosophies of Education

- a) Perennialism
- b) Essentialism
- c) Progressivism
- d) Reconstructionism

4. Conceptual analysis of Education in Pakistan

- i. Professionalism in Education
- ii. Teacher Education
- iii. Quality Education (in Teaching Learning Process & Evaluation Mechanism)

Suggested readings:

1. Taneja, V.R (2003) Socio-Philosophical Approach to Education, Delhi: Atlantic publishers.
2. Candra, S.S.Rajindra, K.Sharma (2002) Philosophy of Education, Delhi: Atlantic publishers.
3. Aggarwal, J.C (2003) Theory & Principles of Education, and Delhi: Vikas Publishing house PVT.
4. Sarivastava,(2003) Philosophical Foundations of Education, New Delhi: Kaniska publishers/distributors.
5. More, T.W (1986) Philosophy of Education, London: Rout Ledge & Kagen Paul
- 6 Jalalpuri, (1992) A.A. Rewayate Falsafah , khurd Afroze Jhelum
- 7 Kneller, G.F. (1971) Introduction to Philosophy of Education , John Wiley & Sons Inc. USA
- 8 Khan, A.I. (1994) Education Concept & Process , Lahore: Polymer Publications
- 9 Sharma, R.N. (2000) Textbook of Educational Philosophy , New Delhi: Kanishka Publishers

Introduction to Educational Psychology

Course code EDU-702

Credit hrs: 3

Course objectives

The purpose of this course is to enable the students to

- Understand what educational psychology is really meant for
- Apply the learning theories & principles in instruction and help the students in showing maximum learning output
- Understand various concepts of intelligence and use this understanding in monitoring the students' class performance
- Explore the individual differences among their students
- Understand different phases of human development and apply that understanding in handling the individuals

This course will cover the following topics:

1) **Introduction to Educational psychology**

- a) Objectives of Educational psychology
- b) Scope & importance of Educational psychology
- c) Methods & techniques of Educational psychology
- d) Recent developments in Educational psychology

2) **Learning**

- a) Thorndike's connectionism
- b) Classical conditioning
- c) Operant conditioning
- d) Cognitive perspectives of learning
- e) Social learning theory
- f) Conditions of learning
- g) Factors affecting the learning process
- h) Gestalt theory of learning

3) **Personality**

- a) Origin of personality development
- b) Kinds of personality (by Jung & Springer)
- c) Characteristics of personality
- d) Personality theories
- e) Moral aspects of personality
- f) Complexities of personality patterns

4) **Intelligence**

- a) Modern concept of intelligence
- b) Theories of intelligence
 - i) Two factors theory
 - ii) Group factors theory
 - iii) Multi factors theory
- c) Tests of intelligence
- d) Intelligence & school performance

5) **Individual Differences**

- a) Types of individual differences
- b) Effects & importance of individual differences
- c) Grouping of students in school according to individual differences

6) **Growth & development**

- a) Principles of growth & development
- b) Characteristics of growth & development
- c) Physical development
- d) Cognitive development
- e) Emotional development
- f) Psychosocial development
- g) Moral development
- h) Educational implication

Suggested readings

- Michael Presley (1995) Advance Educational psychology New York, Harper & Collins college publications.
- Salvin R. E. (1991) Educational Psychology theory Into Practice
- Skinner E. Charles, (1996) Educational Psychology. Prentice Hall of India Pvt ltd.

- Weber I. Ann (1991) Introduction to Psychology New York Harper perennial publishers

Sociology of Education

Course Code: Edu-703

Credit Hrs: 3

Course Objectives

After studying this course, the students will be able to

- explain the meaning and relationship between society and education
- understand how social interaction helps socialize an individual
- realize how social groups and social institutions help socialize an individual

This course will cover the following topics:

Sociology & Education

- Meaning of Sociology
- Sociology of sociology
- Importance of Sociology of Education

Society meaning and Scope

- Characteristics of society
- Kinds of society
- Relationship between Society and Education

Social Interaction

- Meaning of social interaction
- Elements of social interaction
- Types & Forms
- Measurement

Social Groups

- Meaning
- Importance
- Essentials
- Types

Social Institutions

- Definitions
- Types & Functions

Family

- Types of Family
- Functions of Family

Community

School as a community organization center

Socialization

- Meaning of Socialization
- Socialization and Learning

Education and Socialization

- The school as variable
- Relation among the school, community and child socialization
- The school and socialization

Culture

- Meaning of culture
- Relation between culture and society
- Community Leader

Suggested readings:

- Bhattacharya Srinibas (2003) Foundations of Education
- Pandit, K.L. (2003) Educational Sociology New Delhi, Atlantic Publishers.
- Schafefer, Richard T. (200) Sociology
- Taneja, V.R (2003) Socio- Philosophical Approach to Education

Educational Management & Supervision

Course code: Edu-704

credit value: 3

Course Objectives

After studying this course, the students will be able to:

- Understand what organization is
- Get equipped with the essential knowledge and skills required for effective management and supervision
- Get ready as prospective educational personnel for managing & supervising secondary schools.

This course will cover following topics:

1. Introduction to organization & management
 - a) What is an organization
 - b) The concept & definition of management
 - c) Historical background of management
 - d) Management functions & process
 - e) Management roles & skills
2. Concept of educational management
 - a) Management in education
 - b) Approaches to management in education
 - c) Roles & functions of educational management
 - d) Principles & advantages of school management
3. Management of resources in education
 - a) Human resources
 - b) Physical resources
 - c) Financial resources
 - d) Informational resources
4. Educational leadership
 - a) Definition & concept
 - b) Types of leadership
 - c) Theories of leadership
 - d) Leadership behavior & style
 - e) Desirable characteristics of leader
 - f) School culture & leadership role
5. Concept of Supervision
 - a) Meaning & importance of supervision
 - b) Kinds of supervision
 - c) Functions of supervision
 - d) Objectives of educational supervision
 - e) Techniques of supervision
 - f) The supervisor's qualities/ skills
 - g) Guiding principles of supervision
 - h) Supervisory practices in Pakistan

Suggested readings:

- Choudhry, N.R (2001) Management in education, New Delhi: A.P.H publishing.
- Coulter P. & Robins, S.P (1999) Management, New Delhi: Printice hall.
- Certo, S.C. (1997) Supervision Quality, diversity & technology, Chicago: IRWIN publishing co.
- Hay, W.R & Michel G.S (1996) Educational Administration theory, research & practice, London: McGraw Hill.
- Law, sue & Glover, D. (2000) Educational leadership & learning, Open University press.

Curriculum Development & Implementation

Course code EDU-705

Credit hrs: 3

Course objectives

After completion of the course, the learners will be able to:

- Understand the concept of curriculum & process of curriculum development and its implication for improving the quality of education in Pakistan.
- Apply skills and knowledge to translate intended curriculum into practice and further enrich it for achieving goals.
- Analyze critically the existing practices of curriculum reforms and explore alternatives for improving the curriculum reforms in Pakistan.
- Perform role as curriculum planners and developers to meet the challenges and demands of the 21st century.

This course will cover following topics:

- 1) Concept of Curriculum**
 - 1.1. Traditional & progressive concepts of curriculum
 - 1.2. How curriculum differs from:
 - i) Subject
 - ii) Course
 - iii) Syllabus
 - iv) Educational Program
 - 1.3. Hidden Curriculum and core Curriculum
 - 1.4. Elements of curriculum
 - 1.5. Need & importance of curriculum
 - 1.6. Characteristics of Curriculum
- 2. The Process of Curriculum Development**
 - 2.1. What is Curriculum Development?
 - 2.2. Elements of curriculum development process
 - i. Situation Analysis
 - ii. Formulation and Classification of Curriculum Objectives (Bloom's Taxonomy)
 - iii. Selection of Content
 - iv. Selection of Instructional Strategies
 - v. Evaluation
 - 2.3. Factors influencing Curriculum Development
- 3. Foundations of curriculum**
 - 3.1. Philosophical foundations
 - 3.2. Psychological foundations
 - 3.3. Socio- cultural foundations
 - 3.4. Economic foundations
- 4. Curriculum Change**
 - 4.1. Concept of Curriculum Change
 - 4.2. Strategies for Curriculum Change
 - 4.3. Barriers in Curriculum Change
- 5. Curriculum Evaluation**
 - 5.1. Objectives of Curriculum Evaluation
 - 5.2. Functions of curriculum evaluation
 - 5.3. Formative & Summative Evaluation
 - 5.4. Process of Curriculum Evaluation
- 6. Curriculum Reforms in Pakistan**
 - 6.1. Review of Curriculum Reforms in Pakistan in line with national Education policies
 - 6.2. Curriculum Reforms introduced by the present Government

Suggested readings:

- Allied Material on Curriculum Development and Instruction (2003) Islamabad, Allama Iqbal Open University Press
- Government of Pakistan: All Reports of the Curriculum Committee for Secondary Education. Ministry of Education.
- Murray, Print (1993) Curriculum Development and Design 2nd edition, Malaysia Allen and Unwin.

- Saylor, Alexander, Lewis (19981) Curriculum Planning for Better Teaching and Learning 4th edition New York, Rinehart and Winston.
- Taba, Hilda (1962) Curriculum Development: Theory and Practice New York, Harcourt, Brace & World Inc.

Quantitative Research Methods in Education

Course code EDU-707

Credit hrs: 3

Course objectives

It will be an introductory course on quantitative research methods used in field of education. The purpose of this course is to:

- Acquaint the students with the basic information about the quantitative research methods
- Make them aware of various types of research
- Enable them to understand the research studies presented in the advance courses

This course will cover the following topics.

1: Introduction to Educational Research

- a) Methods of acquiring knowledge
- b) The scientific method
- c) Meaning of research
- d) Classification of educational research

2: Research Problem

- a) What is research problem
- b) Sources of problem
- c) Selecting the problem
- d) Criteria of good research problem

3: Review of Related literature

- a) Definition & significance
- b) Sources of information
- c) Reporting
- d) Computer searches

4: The Hypothesis

- a) Definition & purpose
- b) Sources of hypothesis
- c) Characteristics of hypothesis
- d) Types of hypothesis
- e) Stating the hypothesis
- f) Testing the hypothesis

5: Sampling Techniques

- o Random sampling
- o Stratified sampling
- o Cluster sampling
- o Systematic sampling

6: Tools of research

- a) Questionnaire
- b) Interview
- c) Observation

7: Research Design

- a) Meaning of research design
- b) Purposes of research design
- c) Characteristics of good research design

8: Designing Experimental & Quasi experimental Survey research

- a) Meaning of experimental & quasi experimental design
- b) Concept of experimental validity
- c) Threats to experimental design
- d) Different experimental designs
- e) Survey designs & methodology

9: The Analysis of Data

10: Writing Research Report

- a) Nature & style
- b) Typing style
- c) Format & language
- d) Writing abstract
- e) Evaluation of research thesis

Suggested readings

- Clive seale. (2004) Social Research Methods. London: Rout Ledge Taylor & Francis group.
- Frankel, Jack R. et al How to Design and Evaluate Research in Education
New York McGraw Hill, Inc.
- John w. best. (1992) Research in Education .New Delhi: Prentice hall of India
- Malcolm Williams (2003) Social Research, London Sage Publications.
- Shelley Anand (2002) Research Methods & Techniques in Social Science
New: Delhi common wealth publishers
- Wiersma, William. (1986), Research Methods in Education: An Introduction,
6th ed. Boston: Allyn and Bacon, Inc.

Qualitative Research Methods in Education

Course Code Edu-708

Credit hrs.3

Course Objectives

- Familiarizing the students with the qualitative inquiry methods
- Developing the skills among students to use qualitative research methods as independent or complementary to the quantitative methods in all spheres of education i.e. teaching evaluation etc.
- Designing a qualitative inquiry to at least one selected issue in education.

This course will cover the following topics.

Unit: 1 Nature of Qualitative Research

- Qualitative research Origin and rationale
- Differences between qualitative and quantitative research

Unit 2: Some theoretical affiliations and classification of qualitative inquiry

- Phenomenology
- Symbolic Interactionism
- Ethnography Feminist research

Unit 3: Designs in qualitative research

- Case study
- Content analysis
- Action research

Unit 4: Basic techniques of data collection

- Interviewing/asking
- Individual
- Focused group interview
- Observation/watching
- Participative
- Non-participative
- Archival research/studying/documentary

Unit 5: Ethical issues in qualitative inquiry

Unit 6: Types of data

- Field notes
- Transcripts from taped interviews
- Subjects written words
- Montage/photography
- Official records
- Accounts
- Videos

Unit: 7 Analysis of data

- Analysis of data in the field (study)
- Field memos
- Discovering themes and hypotheses
- Analysis after data collection
- Data displays

Unit 8: Trustworthiness in qualitative research

Unit 9: Writing Research Proposals

Suggested readings:

1. Bogdan Robert and Taylor Steven,J.(1975) Introduction to Qualitative Research
2. Bogdan Robert C. and Bicklen. Sari Knopp. (1982) Qualitative Research for Education
3. Cohen.Louis and Manion Lawrence .(1990).Research Methods in Education London : Routledge.
4. Lincoln; Yvonna S . And Guba; Egon G . (1985) Naturalistic Inquiry Beverly Hills: Sage Publications

Educational Technology

Course code EDU-709

Credit hrs: 3

Course objectives

This course will enable the students to:

- Pinpoint the role of educational technology in educational development in national & international perspective in developing countries.
- Enable the students to make instruction effective by using hardware & software approach in order to achieve the desired objectives
- Use appropriate methods & materials for successful teaching

This course will cover the following topics:

1: Nature of Educational Technology

- a) Definition of educational technology
- b) Scope of educational technology
- c) Characteristics of educational technology
- d) Types of educational technology

2: Educational technology & learning

- a) Role of educational technology in learning
- b) Maxims of learning
- c) System approach
- d) Programmed learning
- e) Purposeful & lasting conditions of learning

3: Aims & objectives

- a) Educational & instructional objectives
- b) Bloom's taxonomy of educational objectives
- c) Writing objectives in behavioral terms

4: Teaching strategies

- a) Effective & efficient teaching
- b) Simulation, team teaching & brainstorming

5: Projected & non-projected aids

- a) Projectors, TV, VCR, computer, fieldtrips, boards, models, charts, radio, tape recorder.

6: New trends in educational technology

Suggested Readings

- Aggarwal, J.C (1995) Essentials Of Educational Technology, Teaching Learning Innovations In Education. New Delhi
- Rai, B.C. (1994) Techniques & Methods Of Teaching. Lukhnow paraksha Kendra
- Sampath, K. (1981) Introduction To Educational Technology. New Delhi Sterling publishers.
- Sharma, R.A. (1993) Advanced Educational Technology. Meerut loyal book Depot.

Education in Pakistan

Course code EDU-710

Course Credits:3

Course Objectives

After the completion of this course, the students will be able to:

- Study the education in Pakistan in historical perspective
- Link the education system with that of prevalent during the British Period
- Understand the salient features of different educational policies after independence
- Analyze the critical aspects of education systems in Pakistan
- Understand the administrative structures of different educational institutions in Pakistan
- Understand the major problems/ issues faced by educational institutions in Pakistan

This course will cover the following topics:

- I. Historical Background of Education in Pakistan
 - 1.1 Educational system during Muslim Period
 - 1.2 British Period of Education
 - 1.3 Educational movements before 1947
 - 1.4 Development of Educational system during British Rule

- II. Development of Education in Pakistan
 - 2.1 Educational Policies up to 1998
 - 2.2 Educational Policy 1998—2010
 - 2.3 Education Sector Reforms (ESR) 2002-2006
 - 2.4 Public Private Partnership in the Education Sector

- III. Structure of Education in Pakistan
 - 3.1 Education system at federal, provincial and district level
 - 3.2 Decentralization agenda and implementation
 - 3.3 Major public sector organizations in Education

- IV. Situational analysis of Pakistani Education
 - 4.1 Current policies and reforms
 - 4.2 Standards and structures
 - 4.3 Administrative Processes
 - 4.4 Quantity projections and Quality challenges
 - 4.5 Planning & Financing issues

- V. Critical perspectives on Pakistani system of Education
 - 5.1 Religious Education and institutions
 - 5.2 Basic Education & literacy
 - 5.3 Secondary & Higher Education
 - 5.4 Technical & Vocational Education
 - 5.5 Teacher Education

Suggested Readings:

1. Farooq, R.A. (1994) *Education System in Pakistan*. Islamabad : Asia society for promotion of Annotation and Reforms in Education
2. Malik, S.A. (1999) *the system of Education in Pakistan*. Islamabad: National Book Foundation
3. Saigol, R. (1993) *Education: Critical perspectives*. Lahore: Progressive Publishers
4. <http://www.moe.gov.pk/policies.htm>.

Teaching Profession

Course code EDU- 711

Credit hrs: 3

Course objectives

After studying this course the students will be able to:

- Understand concept and criteria of a profession.
- Plead the case of teaching as a profession.
- Analyze the factors responsible for lack of professionalism in teaching.
- Work for their development as professional teachers.

The following topics will be discussed in the course:

1: Introduction to Teaching Profession

- a) Modern Concept of Teaching
- b) Meaning of profession
- c) Criteria for a profession
- d) Qualities of a good teacher
- e) Teaching as a profession
- f) Teaching compared to other professions

2: Ethics for the Teaching Profession

- a) Role of Ethics in the Profession
- b) Code of Ethics for the Teaching Profession
- c) Violation of the Professional Code of Ethics
- d) Academic Freedom and Teachers

3: Professional Development of Teachers

- a) Concept of Professional Development
- b) Becoming Thinking Teachers
- c) Reflective Journals
- d) Professional Development through Reflective Practice
- e) In-service Training Programmes

4: Professionalisation of Teacher Education

- a) Holistic Approach to Teacher Education
- b) Teacher Education Programmes in Pakistan: structure, problems and issues and recommendations
- c) Qualitative Change through Teacher Education
- d) Teaching Practice
- e) Future of Teacher Education

Suggested readings:

1. Goodson, I.F. (2003) *Professional Knowledge, Professional Lives*. Philadelphia: Open University Press
2. Holmes, E. (2003) *The Newly Qualified Teacher's Handbook*. Delhi: Crest Publishing House
3. Hudson, A. & Lambert, D. ((1997) *Exploring Futures in Initial Teacher Education*. London: Bedford Papers
4. Kavita, J. (2004) *Future of Teacher Education*. New Delhi: Sumit Enterprises
5. Khan, A. I. (1994). *Education: Concept and Practice*. Lahore: Polymer Publications
6. Osterman, K.F. & Kottkamp, R. F. (2004) *Reflective Practice for Educators*. California: Crown Press
7. Siddiqui, S. (2007). *Rethinking Education in Pakistan: Perceptions, Practices and Possibilities*. Karachi: Paramount Publishing Enterprise.

Educational Measurement & Evaluation

Course code EDU-712

Credit hrs: 3

Course objectives

This course will enable the student to:

- Understand the concept of measurement & assessment
- Apply the measuring & assessment techniques in the classroom in order to assess the student's academic performance.

This course will cover the following topics.

1: Introduction

- 1.1 Definition of Measurement, Assessment and Evaluation
- 1.2 Difference between Measurement, Assessment and Evaluation
- 1.3 Types Of Assessment Procedures
- 1.4 Criterion And Norm Referenced Test

2: Instructional Goals and Objectives

- 2.1 What Are Instructional Objectives
- 2.2 Taxonomy Instructional Objectives
- 2.3 Criteria For Selecting Appropriate Instructional Objectives
- 2.4 Method Of Selecting Instructional Objectives

3: What Is Test?

- 3.1 Class Room Test
- 3.2 Standardize Test
- 3.3 Validity Of The Test
- 3.4 Reliability Of The Test

4: Test Construction

- 4.1 Developing A Specification Of Test
- 4.2 Selecting Appropriate Type Of Test Items
- 4.3 Construction Of Objective Test Item
- 4.4 Construction of subjective test items
- 4.5 Item analysis

5: Continues Assessment

- 5.1 What Is Continuous Assessment
- 5.2 Need For Continuous Assessment
- 5.3 Techniques Of Continuous Assessment
- 5.4 International Assessment
- 5.5 National Assessment
- 5.6 National Assessment In Pakistan

6: Interpretation of Test Scores and Norms

- 6.1 Grade Norms
- 6.2 Percentile Rank
- 6.3 Standard Scores
- 6.4 Profiles
- 6.5 Skill Analysis
- 6.6 Cautions In Interpreting Test Scores

7: Grading and Reporting

- 7.1 Functions Of Grading And Reporting System
- 7.2 Types Of Grading And Reporting System
- 7.3 Record Keeping And Grading Software
- 7.4 Reporting Test Results To Parents

Suggested readings:

- Gay, L.R. (1985) Educational Evaluation & Measurement. London: Column Charles publishing company.
- Gronlund, Norman E (2005) Measurement assessment in Teaching New York: mc millan publishing company

- Gronlund N.E. (1998) Assessment of Student's Achievements. Boston: Allyn & Bacon.
- Wiersma William & Jors Stepheng. (1990) Educational Measurement & Testing Boston: Allyn & Bacon.

Computer Application in Education

Course code EDU-713

Credit hrs: 3

Course objectives

At the end of this course, the students will be able to:

- Define & apply the following terms: computer hardware, computer software, spread sheet, ms power point, ms access
- Use the computer in Education.

This course will cover the following topics.

- 1: Fundamentals of computer
 - a) Types of computer
 - b) Hardware configuration
 - c) Central processing unit
 - d) Computer software
- 2: Spreadsheet
 - a) Uses of ms excel
 - b) Maintaining & entering the data in spread sheet
 - c) Graphic presentation of data
 - d) Preparing & presenting reports
- 3: Designing the presentation
 - a) Introduction to ms power point
 - b) Preparing presentation
 - c) Audio & visual effects
- 4: Computer in education
 - a) Using different types of computer programs for delivering lessons in class
 - b) Lesson planning
 - c) Preparing result cards & reports
- 5: Searching for information
 - a) Introduction to internet
 - b) Searching & browsing
 - c) Sending & receiving mails

Suggested readings:

- Atul Jain (2005) Computer in Education, Delhi: Asha books.
- Black U (1999) Advance Internet technologies. Prentice Hall New Jersey.
- Bott e.d (2000) Special Edition Using Microsoft office 2000 Prentice hall of India pvt. Ltd. New Delhi
- Capron, H.I. (1998) Computers Tools for an Information Age. Addison weley.
- Sing.y.k, Ruchiak Nath (2005) Teaching of Computers, New Delhi: A P H Publishing Corporation.

Content Improvement Course in English

Course code EDU-714A

Credit hrs: 3

Course objectives

After reading this course the students will be able to:

- Improve their competency in four skills of English Language.
- Develop their abilities in writing grammatically correct English.
- Use English Language efficiently in their practical life.
- Improve command on content of English Language for Teaching.

This course will cover the following topics.

- 1: Selected Literature
 - “Tolerance” by E.M.Forster
 - “Of Studies” by Francis Bacon
 - One Essay by Bertrand Russell
 - One poem from Wordsworth
 - One poem from John Keats
 - One short story
- 2: Tenses with sense of their uses
- 3: Active & passive voice
- 4: Direct & indirect
- 5: Punctuation
- 6: Essay Writing
- 8: Job Application writing
- 9: Summarizing
- 10: Comprehension
- 11: Formal & informal discussions
- 12: Individual expressions

Suggested readings:

- Parrott Martin. (2003) Grammar for English Language Teachers Great Britain: Cambridge University Press.
- Rob Nohand (1993) Conversation, London, Oxford University press
- Shanker, Prem (2004) Teaching of English, New Delhi: APH Publishing Corporation
- Sheikh N.A. (1998) Teaching of English as a Second Language , Lahore: Caravan Book House

Content Improvement Course in Mathematics

Course code EDU-714B

Credit hrs: 3

Course objectives

At the end of this course students are expected to be able to:

- Acquire the skills & competencies required for the teaching of mathematics at secondary level.
- Prepare teaching aids for mathematics teaching at secondary level & use them effectively in classrooms.

This course will cover the following topics.

1: Sets

- a) Concept of sets
- b) Kinds of sets
- c) Various operations on sets
- d) Proof & disproof of sets
- e) Kinds of functions Graphical representation

2: Number system

- a) Addition & multiplication of real numbers
- b) Properties of real numbers
- c) Properties of rational numbers
- d) Exponents

3: Integers

- a) Mathematical representation
- b) Divisibility
- c) H.C.F.
- d) LCM
- e) Factorization

4: Matrices

- a) Matrix & its kinds
- b) Sum & products of matrices
- c) Operations on matrices

5: Linear equations and in equalities

- a) Linear equations and in equalities in variables
- b) Application of matrices to simultaneous equations

6: Algebraic expressions

- a) Algebraic expressions their kinds
- b) Basic operation on algebraic expressions
- c) Fundamental formulae & their use

7: Geometry

- a) Fundamental concepts of geometry
- b) Concept of practical geometry

8: Trigonometric functions

- Buton leom Barbara jowski (1995) Technology in Mathematics Chart well brott ltd.
- Greer, Brian & Gerry, Mulhun (1989) New Directions in Mathematics Education New York: rout ledge
- Kumar sudhir. Teaching of Mathematics New Delhi: Anmol Publications pvt ltd.

Comparative Education

Course code EDU-715

Credit hrs: 3

Course objectives

This course is designed to

- Acquaint the students with the educational systems of different countries
- Enable them to make comparisons of those systems.
- Enable the students to look into our educational system critically.

This course will cover the following topics.

1: What is comparative education?

- a) Introduction & definition
- b) Factors affecting system of education
- c) Purposes in comparative
- d) History & development
- e) Methods of comparative education
- f) The problems of comparability

2: Education & development

- a) Education as an investment
- b) Education & social change
- c) Problems of educational planning

3: Internationalism in education

- a) Education, dependency & neocolonialism
- b) International aid & assistance
- c) Internationalism of education
- d) Trends & future

4: Comparative studies in south Asia

- a) Educational profile
- b) Teacher education
- c) Gender disparities
- d) Non- formal education
- e) Key challenges

5: Comparative studies of classroom behavior

- a) Techniques for measuring students achievements
- b) Per student expenditure
- c) Teacher efficiency & effectiveness

6: Cross- sectional studies

- a) Primary education
- b) Higher education
- c) NFE programs
- d) Adult education
- e) Woman education
- f) Environmental education

Suggested readings

- Chakravarti , B.K. (2005). A Textbook of Comparative Education
- Chaube, S.P & Chaube, A. (1998) Comparative education
- Taneja, V.R. (2003) Socio-Philosophical Approach to Education

Contemporary Trends And Issues In Education

Course code Edu-716

Credit hrs. 3

Course objectives

After completing the course the students will be able to:

- Understand the different levels of education and existing examination system in Pakistan
- Understand the curriculum development process in Pakistan
- Understand the impact of science and technology on education
- Understand the formation of human brain and its educational implications
- Know about accelerated learning methods
- Understand mind mapping and its different techniques
- Know the innovative programmes , Monitoring and evaluation system

1. Education System of Pakistan
 - Primary Education
 - Secondary Education
 - Higher Education
 - Examination System
2. Teacher Education
3. Curriculum Development in Pakistan
4. Literacy Trends in Pakistan
 - Rationale, Need and Significance
 - Literacy Defined in Some Other Countries
 - International Context of Definitions
 - Changing Definitions of Literacy in Pakistan
 - Functional Literacy
5. Impact of Science and Technology on Education
 - Definition of Science and Technology
 - Role of Science in Life
 - Challenges of Science and Technology
 - Role of Information Technology in Education
6. Human Brain and Its Educational Implications
 - Brain Development
 - Brain Structure
 - Left and Right Brain: Functions
 - Capacity of Human Brain
 - Brain Waves
 - Memory Processing Model
7. Accelerated Learning Methods
 - Introduction and Significance
 - Suggestopedia
 - Role of Teacher in Suggestopedia
 - Super Learning
 - Introduction to Superlearning
 - Evolution of Superlearning
 - Brain Hemispheres and Waves
 - Key Elements of Superlearning
 - Superlearning in Pakistan
 - Designing a Superlearning Programme
8. Cooperative Learning
 - Elements of Cooperative Learning
 - Issues in Cooperative Learning
9. Mind Mapping
 - Introduction and Significance
 - Mind Mapping Techniques
10. Innovative Programme
 - Incentive Scheme for Primary School Teachers
 - Education Card
 - National Education Testing Service
 - Utilization of Pakistani Talent Abroad
11. Monitoring and Evaluation
 - National Council for Educational Development
 - Provincial Council On Educational Development
 - Provincial Policy Implementation Committee
 - District Education Authority
 - School Management Committee

Suggested Readings:

- Buzan, Tony, The Power of Creative intelligence, Martins the printers Ltd., UK, 2001.
- Coombs, Philip, H. The World Crises in Education, Oxford University press, New York, 1985.
- Farooq, R.A. Education System in Pakistan, Asia Society for Promotion of Innovation and Reforms in Pakistan, Islamabad.
- Mukerjea, Dilip, Super Brain Singapore Oxford University Press 1996
- UNESCO, Literacy Trends in Pakistan, Islamabad, 2004.
- Pakistan, Government of, National education Policy 1998-2010, Islamabad.
- Rose, Colin and Malcolm J. Nicholl, Accelerated Learning for the 21st Century, Dlacoste Press, USA, 1997.
- Traverso, Adriano, Buzzati, The Scientific Revolution: Today and Tomorrow, Unesco, Paris 1977.

Planning & Financing of Education

Course code EDU-718 A

Credit hrs: 3

Course objectives

This course will enable the students to know about the concept, meaning, importance & need of planning & financing of education.

This course will cover the following topics:

- f) Concept of planning**
 - a. Meaning of planning
 - b. Types of planning
 - c. Contingency factors in planning
 - d. Planning tools & techniques
- g) Planning in Educational organizations**
 - a. Meaning of educational planning
 - b. Dimensions of educational planning
 - c. Purposes of educational planning
 - d. Constraints of educational planning
 - e. Process of educational planning
- h) Financing of Education**
 - a. What is financing?
 - b. The sources of Educational financing
 - c. The international context for Educational financing
- i) Foreign aid as financing of education**
 - a. Types of aid agreement
 - b. Different forms of foreign aid
 - c. Sources of foreign aid
 - d. Foreign aid in Pakistan
- j) Financing of education in Pakistan**
 - a. Current scenario of Pakistan
 - b. Social action program
 - c. Foreign assisted projects
 - d. Private sector educational involvement
 - e. Impact of financing of education
- 6) Educational planning in Pakistan**
 - a. Five year plans of educational development
 - b. Expenditures on education
 - c. Trends in educational planning

Suggested Readings:

- AEPM, **Educational Planning** (Series)
- Five year Plans of Pakistan
- Govt of Pakistan (2003) **Economic Survey** Islamabad
- Muzammil, m (1989) **Financing of Education** New Delhi ashish publishing house
- OECD (1997) **Education at Glance** OECD indicators Paris OECD
- Tilak jandiala B.G (1994) **Education for Development in Asia** New Delhi sage publications

Human Resource Management

Course code EDU-718A

Credit hrs: 3

Course objectives

This course will enable the students to understand importance of HRM in education & the task & responsibilities of management. It will also enable to analyze the resource problems in education & its relationship with educational management.

This course will cover the following topics.

1: Introduction

- a) Concept of human capital
- b) Aims of human resource management
- c) Characteristics of human resource management
- d) Different human resource activities

2: Human resource development & education

- a) Human resource planning
- b) Job enrichment
- c) Job design
- d) Job analysis
- e) Performance management
- f) Reward management system
- g) Managing conflicts
- h) Managing creative people
- i) Pay structure
- j) Salary surveys
- k) Systematic training
- l) Skill analysis
- m) Accepting change in organization

3: Human resource management in Pakistan

- a) Recruitment & selection process
- b) Compensation of educational personnel
- c) Motivation & morale building
- d) Performance appraisal
- e) Accountabilities theories

4: Trends & issues in human resource management

Suggested readings

Armstrong, M.(2000) Strategic Human Resource Management . London: Kogan page ltd.

Anderson, h. Alan (1994) Effective Personnel Management. A Skill & Activity Approach. Black well publishers.

Armstrong, M. (2003) The hand book of management techniques. London: Kogan page ltd

William, p. Anthony (1999) Human resource management a strategic approach Philadelphia: Harcourt brace college publishers.

Namita Roy, Choudhry. (2001) Management in Education .A.P.H. Publishing Corporation

Psychology of Exceptional Children

Course Code EDU-718 B

Credit hrs: 3

Course objectives

This course will enable the students to

- Understand the kinds of exceptional
- Identify & diagnose the exceptional
- Measure the causes of the exceptionality
- Categorize them
- Know their characteristics & problems
- Apply educational implications for them

This course will cover the following topics.

1: Introduction to Exceptional Children

- a) Introduction & definitions
- b) Classification of exceptional children

2: Basic knowledge of exceptional children

- a) Gifted children
- b) Hearing impaired children
- c) Visually impaired children
- d) Mentally retarded children
- e) Physically handicapped children
- f) Emotionally disturbed children
- g) Children with learning disabilities
- h) Culturally deprived & economically disadvantaged children

3: Service alternatives for special children

- a) Team teaching
- b) Regular classroom only
- c) Regular class with consultation
- d) Itinerant teacher
- e) Recourse teacher
- f) Diagnostic perspective center
- g) Hospitalized & home bound instruction
- h) Self contained classes
- i) Special day school
- j) Residential school

4: Social trends in special education

- a) Labeling & categorization
- b) Cultural diversity
- c) Early intervention
- d) Normalization, integration & mainstreaming
- e) Vocational rehabilitation of special children
- f) Elimination, rejection, & isolation
- g) Effect of disabled child on family
- h) Family involvement in treatment & education of special children
- i) Transition
- j) Innovative technology & services for special children
- k) Efforts in developing less restrictive environment for special children
- l) Role of NGOs in special education

5: Educational assessment & evaluation of special children

Suggested readings:

- Gross, Miraca U.M (1993) Exceptionally Gifted Children, London: rout ledge.
- Hallahan, Daniel P & Kauffman, James M. (1991) Exceptional Children USA Prentice-Hall International Inc.
- Hunt Nancy, Marshal Kmathlea. (1999) Exceptional Children & Youth. Newyork: Houghton Mifflin& co.
- Kirk, S.A., Gallagher, J.J. & Anastasio, N.J. (1997) Education of Exceptional Children New York. Houghton Mifflin Company.
- Lerner, Janet. W. (2000) Learning Disabilities. New York: Houghton Mifflin& co.

Psychological Testing

Course code EDU-718 B

Credit hrs: 3

Course objectives

After covering this course the students will be able to

- Realize what psychological testing is
- Understand how it is different from educational testing
- Know what characteristics a psychological test possesses
- Realize how they can be able to construct, standardize, and administer a test on their own in educational setting to take some important decisions.

The following topics will be discussed in this course.

1: Introduction to psychological testing

- e) Historical perspective and origin of psychological testing
- f) Nature, uses and limitations of psychological testing
- g) Types of psychological testing

2: Characteristics of psychological tests

- k) Reliability
- l) Validity
- m) Objectivity

3: Test construction, standardization, and administration

- d) Types of test items
- e) Construction of norms
- f) Process of test construction & standardization
- g) Test administration & factors affecting the process

4: Types of psychological tests

- c) Intelligence tests
- d) Aptitude tests
- e) Achievement tests
- f) Personality tests
- g) Interest & motivation tests
- h) Situational tests

5: Tests and educational decisions

6: Social & ethical issues in implementation of psychological tests

7: New trends in psychological trying

- b) Portfolio
- c) Dynamic assessment
- d) Computerized adaptive testing test

Suggested readings:

- Kline, Paul (1994): The Hand Book of Psychological Testing, Routledge, London
- Slavin, Robert E. (1998): Educational Psychology, Theory into Practice, Second Edition

Methods of Teaching English

Course code EDU-719A

Credit hrs: 3

Course objectives

This course will acquaint the students with the methods of teaching English. It will enable them to teach English effectively.

This course will cover the following topics.

- 1. Concept of language**
 - a) What is language
 - b) Aspects & characteristics of human language
 - c) Importance of the English language in Pakistan
 - d) Bilingualism
 - e) Sociolinguistics
 - f) Psycholinguistics
 - g) Aim & objectives of teaching English
- 2. Methods of teaching the English language**
 - a) Old methods
 - Grammar Translation Method
 - Direct Method
 - Audio Lingual Method
 - Structural approach
 - b) New methods
 - Dr. West's Method
 - Substitution Method
 - Bilingual Method
- 3. Teaching four skills in the English language**
 - a) Listening
 - b) Speaking
 - c) Reading
 - d) Writing
- 4. Teaching prose & poems**
- 5. Teaching composition & grammar**
- 6. Teaching audio visual aids in teaching the English language**
- 7. Problems of teaching the English language in Pakistan**
- 8. Assessment of teaching**
- 9. Lesson planning for teaching English language**

Suggested readings:

- Parrott Martin. (2003) Grammar For English Language Teachers Great Britain: Cambridge university press.
- Rob, Nohand (1993) Conversation Oxford University Press
- Shanker, Prem (2004) Teaching of English. New Delhi: APH Publishing Corporation
- Sheikh N.A. (1998) Teaching Of English As A Second Language. Lahore: caravan book house.

Methods of Teaching Mathematics

Course code EDU-719B

Credit hrs: 3

Course objectives

At the end of this course students are expected to be able to

- Acquire the skills & competencies required for the teaching of mathematics at secondary level
- Prepare teaching aids for mathematics teaching at secondary level & use them effectively in classrooms.

This course will cover the following topics.

1: Introduction

- a) Nature of mathematics
- b) Place of maths in secondary school curriculum
- c) Use of maths in everyday life
- d) Use in the study of other subjects

2: Methods of teaching maths

- a) Inductive method
- b) Deductive method
- c) Analytic method
- d) Synthetic method
- e) Heuristic method
- f) Project method
- g) Lecture method

3: Techniques of teaching maths

- a) Oral work, written work, assigned work.
- e) Discussion
- f) Drill & practice

4: Measuring achievements in maths

- a) Preparation of different types of tests in maths
- b) Interpreting test results

5: Planning maths learning

- a) Importance of planning in teaching
- b) Scheme of work
 - a) Importance of lesson plans
 - b) Qualities of good lesson plan

6: Review of content taught at secondary level

Suggested readings

- Buton leom Barbara jowski (1995) Technology in Mathematics chart well brott ltd.
- Greer, Brian & Gerry, Mulhun (1989) New Directions in Mathematics Education New York: rout ledge.
- Kumar sudhir. Teaching of Mathematics New Delhi, Anmol Publications pvt ltd.

Guidance & Counseling in Education

Course Code: EDU-721

Credits Hrs: 3

Course objectives

The objective of the course is to enable the students to:

- acquire basic concept of guidance
- understand the origin and historical development of guidance
- organize effective guidance programme for schools
- understand nature, scope and importance of counseling
- evaluate guidance and counseling programme

Outline of Content

1. Introduction to Guidance

Historical Development of Guidance

Nature of guidance

Aims & Scope of guidance

Role of Guidance in Education

2. Guidance in the Schools

Guidance & Personality Development at Elementary Level

Organizing Guidance Programme at Elementary Level

Problems of Secondary Schools Students

Attitude of Pupils, Parents and Teachers

Organizing Guidance Programme at Secondary Level

3. Strategies for Guidance

Individual Assessment

individual Guidance

Group Guidance

Tools of Guidance

4. Introduction to Counseling

Definitions and Scope of Counseling

Purpose of Student Counseling

Theories of counseling

5. Vocational Guidance

Approaches to Vocational Guidance

Career Corner

Career Talk

Career Conference

Vocational Counseling

Factors Effecting Vocational Development

6. Guidance & Counseling Personnel

7. Evaluation of Guidance Programme

The Process of Evaluation

Evaluation of Guidance and Counseling in Elementary Schools

Evaluation of Guidance and Counseling in Secondary Schools

Suggested Readings

- Fall, Kevin. A et.al. (2003) Theoretical Models of Counseling & Psychotherapy, New York: Burner Rutledge
- Gladding, S. (1996) Counseling a Comprehensive Process, New Jersey: Merrill, an imprint of Prentice Hall.
- Kochhar, S.K (2003) Guidance & Counseling in Colleges & Universities, New Delhi: Sterling Publishers.
- Pearson, Richard.E (1990) Counseling and Social Support, London: Sage Publications
- Shah, R.K (2003) vocational Counseling. Jaipur: Pointer Publishers

Seminars in Educational Management

Course code :EDU-722A

Credit hrs: 3

Course Objectives

This course will enable the students to

- Identify the circumstances under which Management becomes essential
- Maintain, organize, & make best use of the resource available.

This course will cover the following topics.

1. Training of administrators
2. Educational governance
3. Instructional personnel
4. Managing labor interrelationships
5. Relationship of school management with community
6. Managing school choice
7. Managing school finance
8. Managing school law
9. Managing school performance
10. Managing school safety
11. Impacts of globalization on educational management
12. Control of education
13. Quality management in education
14. Gender issue in educational management
15. Managing innovation & flexibility
16. Demographic aspects of managing educational system
17. Managing work force diversity
18. Managing in & E_business world
19. Managing reward system
20. Getting & managing school system
21. Managing and leading for high performance
22. Managing behavioral performance
23. Managing power & politics
24. Managing stress & conflicts in educational organization
25. Managing teamwork in 21st century
26. Motivating employees in educational organization
27. Managing communication process in educational organization
28. Managing workplace privacy and violence

Suggested readings:

- Choudhry, N.R (2001) Management in education, New Delhi: A.P.H publishing.
- Coulter P. & Robins, S.P (1999) Management, New Delhi: Printice hall.
- Certo, S.C. (1997) Supervision Quality, diversity & technology, Chicago: IRWIN publishing co.
- Hay, W.R & Michel G.S (1996) Educational Administration theory, research & practice, London: McGraw Hill.
- Law, sue & Glover, D. (2000) Educational leadership & learning, Open University press.

Seminar Course in Educational Psychology

Course Code EDU-722B

Credit hrs: 3

Course Objectives

This course will enable the students to:

- Understand the problems, issues and new trends in Educational Psychology.
- Develop their spoken language skills through presentations
- Improve their ability of critical questioning and answering

The course will cover the following topics:

- 1.Theoretical Perspectives on Child Development
- 2.Piaget's Theory of Cognitive Development
- 3.Contemporary Theories of Intelligence
- 4.Critical Thinking
- 5.Assessment of Intelligence
- 6.Teacher-Student Interaction
- 7.Co-operative Learning
- 8.Problems and Issues in Behavior Modification
- 9.Test Standardization
10. School Culture and Students' Personality Development

Suggested readings:

- Michael Presley (1995) Advance Educational psychology, New York, Harper & Collins college publications.
- Salvin, R.E. (1991) Educational Psychology theory Into Practice
- Skinner E. Charles, (1996) Educational Psychology, New Delhi, Prentice Hall of India.
- Weber I. Ann (1991) Introduction to Psychology, New Yorkn Harper Perennial publishers

Educational Change

Course code EDU-723

Credit hrs: 3

Course objectives

After reading this course the students will be able to:

- Understand the nature and process of change in education.
- Understand their responsibilities as change agents to introduce innovations in Education system of Pakistan
- Know the barriers in the change process
- Comprehend the role of the teacher in implementing the change

This course will cover the following topics.

1: Introduction to Educational Change

- a. The meaning of Educational change
- b. General Problem of the meaning of change
- c. The subjective meaning of Educational change
- d. The objective meaning of Educational change
- e. Implications of subjective and objective realities

2: Overview of the Change Process

- a. Initiation
- b. Implementation
- c. Continuation

3: Change Agents and their role in the Change Process

- a. Teacher
- b. Principal
- c. Student
- d. District Administrator
- e. Consultants
- f. Parent / Community
- g. Government

4: Forces Against Change

- a. Types of resistance
- b. Reasons for resistance

5: Models of Introducing Change and Innovations

Suggested readings

1. Fullen, M.G. (1993) *Change Forces: Probing the Depths of Educational Reform*, London, The Falmer Press.
2. Fullen, M.G. (1991) *The New Meaning of Educational Change*, London, Caswell Educational Limited.
- 3: Henry, J. (2002) *Managing Innovation & Change*, London: Sage publications.
- 4: Newstrom, J. W. (1997) *Organizational Behavior*, New York: Mc Graw Hill.
- 5: Zein, K.A. (1997) *The Innovation Explosion*, New York: Free Press

Objectives:

After reading and qualifying the course the students are expected to:

- Understand different forms of report writing.
- Write reports of formal and informal events at department/university.
- Write critical literature review on a research problem of their interest.
- Analyze written work of their fellows.
- Make presentations on the selected topics.

Unit 1: Introduction and Classification of Research

- Identification of the problem
- Hypothesis
- Population and sampling
- Literature review and Data Sources
- Analysis and interpretation of data
- Classification of research (by purpose and method)

Unit 2: Preparation and Presentation of Proposal

- Title page
- Introduction
- Background
- Literature review
- Methodology
- Interpretation and analysis of data

Unit 3: Report Writing

- Writing abstract
- Writing and presenting reports of events at the department/ university
- Researching and writing critical literature review
- Writing review of books and thesis
- Analysis of written work
- Writing on educational issues in newspapers
- How to write report of discussion on educational issues in the classroom

Unit 4: General Writing

- Developing an outline
- Writing Curriculum Vitae
- Filling in forms for admission and employment

Unit 5: Writing Bibliography and references**Recommended Books:**

- **Write Better, Speak Better.** (2000). Hong Kong: South China Printing
- Gay, L.R. (1987) **Educational Research: Competencies For Analysis & Application.** London: Merrill publishing Company
- John W. Best & James V. Kahn, **Research In Education** .New Delhi: Prentice Hall of India
- Shelley Anand (2002) **Research Methods & Techniques in Social Science** New: Delhi common wealth publishers
- Wiersma, William. (1986), **Research Methods in Education: An Introduction.** 6th ed. Boston: Allyn and Bacon, Inc.

Objectives:

This course will help the students to understand statistical concepts, which are used as tools of analysis in the field of education in respect of measurement & evaluation of students' performance & research in education.

Unit 1: Introduction to Statistics

- Statistics In Education
- Importance of Statistics In Education

Unit 2: Graphic Representation of Data

- Histogram
- Polygon
- Frequency curve
- Pie chart / graph

Unit 3: Measures of Central Tendency

- Mean
- Median
- Mode

Unit 4: Measures of Dispersion

- Range
- Quartile deviation
- Standard deviation

Unit 5: Measures of Relationship

- Correlation
- Normal distribution
- Percentile & percentile ranks
- Tests of significance
- Parametric tests
- Non- Parametric tests

Unit 6: Measurement Scales

- Nominal
- Ordinal/ ranking
- Interval
- Ratio

Unit 7: Random Variables and Probability Distribution

- Random sampling
- Random variables and their distribution
- Binomial distribution

Unit 8 Normal and Sampling Distributions

- Normal distribution
- Interpreting scores in terms of Z-scores and percentile ranks

Unit 9: Statistical Inferences: One sample

- Introduction to hypothesis testing
- One –sample T-Test for a mean
- Confidence interval for a mean
- One sample Z-Test and confidence interval for a proportion
- One sample T-Test and confidence interval for means using independent & dependent samples

Unit 10: Introduction to the Analysis of Variance and Co-variance

- Introduction to analysis of variance
- Basic concepts in ANOVA
- Basic concepts in ANCOVA
- Multiple comparison procedures

Unit 11: Statistical Inference for Frequency Data

- One –Sample Chi-Square test
- Testing Goodness of Fit
- Testing independence
- Testing equality of proportion

Unit 12: Statistical Inference for Ranked Data

- Introduction to Assumption –Free test
- Mann-Whitney U Test for two independent samples
- Wilcoxon test for dependent samples

Recommended Books:

- Gay, L.R. (1987) **Educational Research: Competencies For Analysis & Application.** London: Merrill publishing Company
- Mangal, S.K. (2002) **Statistics In Psychology & Education.** India: prentice hall.
- Minium, Edward W. Brue M. King. (2001) **Statistics reasoning In Psychology & Education.** New York: john Wiley & Co.