729-C7
12-02-2020

UNIVERSITY OF THE PUNJAB

NOTIFICATION

No. D/1769/Acad. Dated:13/12/2019. The Syndicate at its meeting held on 19-10-2019 has approved the recommendations of the Academic Council made at its meetings dated 29-05-2019 and 21-06-2019 regarding to start of B.Ed. (1.5 years) Program alongwith approval of its Scheme of Studies with different specializations at the Institute of Education & Research and Affiliated Colleges w.e.f. the Academic Session 2018.

The Syllabi & Courses of Reading for B.Ed (1.5 years) Program is attached herewith vide Annexure 'A'.

Sd/-
Dr. Muhammad Khalid Khan
Registrar

Admin. Block,
Quaid-i-Azam Campus,
Lahore.

Copy of the above is forwarded to the following for information and further necessary action: -

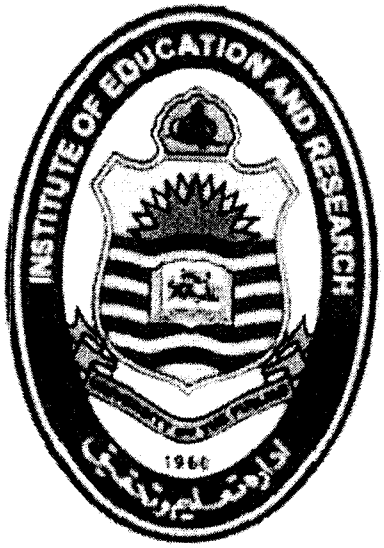
1. Dean, Faculty of Education
2. Director, Institute of Education & Research.
3. Members of the Board of Studies.
4. Controller of Examinations
5. A. O. (Statutes)
6. Secretary to the Vice-Chancellor
7. P.S. to Registrar
8. Assistant Syndicate

Assistant Registrar (Academic)
for Registrar

M. Kaleem

13/02/2020
ACs - II

SCHEME OF STUDIES OF B.ED. (1.5 YEAR) PROGRAM



INSTITUTE OF EDUCATION AND RESEARCH
UNIVERSITY OF THE PUNJAB
LAHORE

July, 2018

B.Ed. (1.5 Year) Program
INSTITUTE OF EDUCATION AND RESEARCH
UNIVERSITY OF THE PUNJAB
LAHORE
Faculty of Education

Department Mission

To achieve excellence in the field of teacher education through empowering teachers and developing their competencies in the areas of content, pedagogical skills and research in the field of Education.

Introduction

The Institute of Education and Research (I.E.R.) is a postgraduate College of Education of the University of the Punjab, Lahore. The Institute was established in September 1960 in cooperation with the School of Education, Indiana University, USA. It is the pioneer Institute in Pakistan for advanced studies in the field of Education. It enjoys the status of being the premier and most prestigious Institute of Education in the country. The Institute presently offers 14 degree programs under semester system.

Program Introduction

B.Ed. is one and a half year (three semesters) program focusing on preparation of prospective school teachers. This program is designed to train the prospective teachers in professional knowledge, aligned with HEC road map and competencies of curriculum & instruction, educational assessment, research methods, and educational leadership & management skills and competencies in pedagogy. This degree program will enable the prospective teachers to teach school subjects (English/Pakistan Studies/History/Geography/Political Science/Urdu/PhysicalEducation/Physics/Chemistry/Biology/Math/Botany/Zoology/Bio-Chemistry/Statistics/Psychology/Art & Experimental Craft/Electronics/Electricity/Electrical engineering/Civil Engineering/Architectural Engineering/Drafting/Computer Science/ Arabic/B.A with Shahdat-ul-Almia/Islamic Studies/Home Economics/Fine Arts & Physical Education). This degree program will also provide ample opportunities to furnish the prospective teachers through their professional development to meet the national standards of teacher preparation. In the present era, the teacher education under the umbrella of teacher preparation programs is the foundation to succeed in the professional career. This program provides the prospective teachers with the platform where they can not only become specialized teacher in the relevant subject teaching at school (the above mentioned subjects) development in professional and academic knowledge will help them in exploring further avenues to meet their personal and professional ambitions. Thus, the program will provide

competent and trained teachers for the above mentioned school subjects being taught at elementary and secondary schools in Pakistan. The program will provide basis for advance studies i.e. M. Phil &Ph D. in Education.

Program Learning Outcomes

The successful completion of this program will enable the prospective teachers to:

1. Comprehend the philosophies of education and their applications in today's teaching and learning environment
2. Have sound grounds in the psychology of learning & development of child and the ways how students learn
3. Have knowledge of school, society and teacher and their role and impact on each other
4. Be a competent teacher with sound knowledge, understanding, skills, and application of various assessment techniques
5. Use the Information Communication Technology (ICT) and instructional technology in teaching and learning process
6. Assess students' learning needs and interests and devise teaching strategies accordingly to ensure maximum learning
7. Have deeper understanding on how curriculum is designed to meet the national standards
8. Have expertise and deeper knowledge in their areas of specialization courses
9. Develop the interest in lifelong learning and social services
10. Develop critical thinking to teach in a live and motivational way
11. Equip with professional ethics and code of conduct to become a professional teacher
12. Be a competent teacher based on the longer duration of practice teaching
13. Develop professional attitude

Rationale of the Program

With increasing need of quality in teacher education, the pre-service teacher education requires transformation to fulfil this need. In this regard, the National Curriculum Review Committee (NCRC), Higher Education Commission (HEC) Pakistan, devised the teacher education roadmap that aims to place in the uniform system of teacher education preparation in all provinces of Pakistan. The program B.Ed. (1.5 Year) is rationalized based on the national vision to bring about uniformity in the current diverse status of teacher education preparation. Thus, the program is a process of reform in teacher education designed to create better, qualified and specialized teachers to meet the changing needs of schools.

To get admission in B.Ed. (1.5 Year) program, the prospective teachers should have Master degree/B.A/BS (16 years of education) in the relevant subjects (mentioned above) from any Degree Awarding Institutes (DAIs)/ university, recognized by the Higher Education Commission (HEC). The duration of this program is one and a half year that comprises of three semesters. The standardized format and scheme of studies include a combination of: I) foundation courses, II) professional courses, III) pedagogy courses (area of specialization), IV) practice teaching and V) a research project/thesis. The programme focuses on the subject being offered in Pakistani schools. The purpose to train in these subjects is to develop and enable the prospective teachers to cater the needs of effective and efficient teaching of the content. The programme is especially design to offer area of specialization focusing on pedagogy instructional technology and professional competencies needed to teach the content. Thus, the program intends to create the qualified and professional teachers to bring about quality in teaching and learning process at schools in Pakistan. As the program is aligned with the teacher preparation roadmap designed by the HEC through at email, it provides the opportunity to the registered candidates to get admission in MS/M.Phil. Education on its successful completion.

Admission Eligibility Criteria

1. The candidates holding M.A./M.Sc. or B.A/B.S (Hons.) or equivalent (16 years of Education) qualification in the subjects of English/Pakistan Studies/ History/ Geography/ Political Science/Urdu/Physical Education/ Physics/ Chemistry/ Biology/ Math/ Botany/ Zoology/Bio-Chemistry/Statistics/ Psychology/ Art & Experimental Craft/Electronics/Electricity/Electrical engineering/Civil Engineering/ Architectural Engineering/Drafting/Computer Science/ Arabic/B.A with Shahdat-ul-Almia/Islamic Studies/Home Economics/Fine Arts & Physical Education and age not more than 28 years are eligible for admission in B.Ed. 1.5 Year.
2. Any person who has attained the age of 28 years on the last date fixed for the receipt of applications for admission shall not be admitted to B.Ed 1.5 year degree program. In case of real hardship, however, the Vice-Chancellor on the recommendations of the Director IER may relax this regulation for (a) females (b) foreign candidates and (c) upto maximum of one year for male candidates. If a candidate is overage s/he should obtain relaxation in age from the Vice-Chancellor on the prescribed form available from IER Main Office and attach the age relaxation orders with the application form. Otherwise s/he will not be considered for admission.

3. The candidate holding 3rd division is not eligible for admission in B.Ed 1.5 year degree program. Two (2) marks will be deducted from percent academic marks for each late session to a maximum of previous five sessions/years for male and female students.
4. There is no age limit for self-supporting programs.
5. The candidates should have good health, personality and character. (Any student, who was rusticated, expelled, or whose entry in any college/university campus was banned for any reason whatsoever at any time during her/his academic career), shall not be admitted to any class without the permission of the Board of Governors (BOG) IER. The BOG may not consider such cases except on the recommendations of the Faculty Council.

MERIT CRITERIA FOR B.Ed. 1.5 YEAR

Course/Degree	Marks allocated against %age marks (Annual System)					
	45%	**50%**	**55%**	**60%**	**70%**	**≥80%**
Matriculation or equivalent	5	10	12.5	18.75	21.25	25
F.A/F.Sc or equivalent	5	10	12.5	18.75	21.25	25
B.A/B.Sc or equivalent	5	10	12.5	18.75	21.25	25
M. A/ M.Sc or equivalent (pass course)	5	10	12.5	18.75	21.25	25
Course/Degree	**Marks allocated against CGPA (Semester System)**					
	2.0	2.5	2.7	3.0	3.4	**≥ 3.8**
M.A/M.Sc or equivalent	7.5	12.5	15	18.75	21.25	**25**
BS (Hons) 4 years	12.5	25	30	37.50	42.50	**50**
Course/Degree	**Marks allocated for Overall Percentage Marks (if CGPA is not mentioned)**					
	60%	65%	70%	75%	80%	≥85%
M.A/M.Sc or equivalent	7.50	12.50	16.25	18.75	21.25	**25**

Duration of the Program

Program General Information

Course Duration:	One and a half year (three semesters)
Total Credit Hours:	54-57
Total Semesters:	3
Qualification on Completion:	Bachelor in Education/ B.Ed.

Scheme of Studies of B.Ed. (1.5 Year) Program

As mentioned in the "Rationale of the Program" that courses suggested for B. Ed. (1.5 year) scheme of studies from all the departments consist of a combination of courses: I) foundation courses, II) professional courses, III) pedagogy courses (area of specialization), IV) practice teaching, and V) a research project/thesis. The following tables show these courses in line with their course codes and credit hours suggested for this program.

(I) Foundation Courses

S. NO.	Course Code	Title of the Course	Credit Hours
1	ED302	Philosophy of Education	3
2	EDU-003	Human Development & Learning	3
3	ED-300	Islamic Culture and Ideology of Pakistan	3
4	ED-303	Education in Pakistan	3
5	ED-331	Social Foundations of Education	3
6	EDBE332	Curriculum Development: Theories and Practice	3

(II) Professional Courses

S. NO.	Course Code	Title of the Course	Credit Hours
1	ED319	Research Methods in Education	3
2	ED-318	Educational Assessment and Evaluation	3
3	EDU-005	Educational Leadership and Management	3
4	EDBE320	Educational Statistics and Computer Application	3
5	EDBE321	Professionalism in Teaching	3
6	EDBE322	Communication and Life Skills	3
7	EDSC326	Environmental Education (only for Science Edu.)	3

OR

(III) Area of Specialization Courses in English

S. NO.	Course Code	Title of the Course	Credit Hours
1	EDBEL351	Phonetics and Phonology	3
2	EDBEL352	Foreign/Second Language Acquisition and Instructional Technology	3
3	EDBEL353	Syntax and Teaching of Grammar	3

OR

(III) Area of Specialization Courses in Fine Arts

S. NO.	Course Code	Title of the Course	Credit Hours
1	EDBEE351	Teaching of Fine Arts	3
2	EDBEE352	Instructional Technology for Fine Arts	3
3	EDBEE353	Trends and Contemporary Issues in Fine Arts	3

OR

(III) Area of Specialization Courses in Home Economics

S. NO.	Course Code	Title of the Course	Credit Hours
1	EDBEE356	Teaching of **Home Economics**	3
2	EDBEE357	Instructional Technology for **Home Economics**	3
3	EDBEE358	Trends and Contemporary Issues in **Home Economics**	3

OR

(III) Area of Specialization Courses in Arabic

S. NO.	Course Code	Title of the Course	Credit Hours
1	EDBEI351	Teaching of Arabic	3
2	EDBEI352	Instructional Technology for Arabic	3
3	EDBEI353	Trends and Contemporary Issues in Arabic	3

OR

(III) Area of Specialization Courses in Islamic Studies

S. NO.	Course Code	Title of the Course	Credit Hours
1	EDBEI356	Teaching of Islamic Studies	3
2	EDBEI357	Instructional Technology for Islamic Studies	3
3	EDBEI358	Trends and Contemporary Issues in Islamic Studies	3

OR

(III) Area of Specialization Courses in Biology

S. NO.	Course Code	Title of the Course	Credit Hours
1	EDBESc351	Teaching of Biology	3
2	EDBESc352	Instructional Technology for Biology	3
3	EDBESc353	Trends and Contemporary Issues in Biology Education	3

OR

(III) Area of Specialization Courses in Chemistry

S. NO.	Course Code	Title of the Course	Credit Hours
1	EDBESc356	Teaching of Chemistry	3
2	EDBESc357	Instructional Technology for Chemistry	3
3	EDBESc358	Trends and Contemporary Issues in Chemistry Education	3

OR

(III) Area of Specialization Courses in Mathematics

S. NO.	Course Code	Title of the Course	Credit Hours
1	EDBESc361	Teaching of Mathematics	3
2	EDBESc362	Instructional Technology for Mathematics	3
3	EDBESc363	Trends and Contemporary Issues in Mathematics Education	3

OR

(III) Area of Specialization Courses in Physics

S. NO.	Course Code	Title of the Course	Credit Hours
1	EDBESc366	Teaching of Physics	3
2	EDBESc367	Instructional Technology for Physics	3
3	EDBESc368	Trends and Contemporary Issues in Physics Education	3

OR

(III) Area of Specialization Courses in Geography

S. No.	Course Code	Title of the Course	Credit Hours
1	EDBES351	Teaching of Geography	3
2	EDBES352	Instructional Technology for Geography	3
3	EDBES353	Trends and Contemporary Issues in Geography	3

OR

(III) Area of Specialization Courses in Physical Education

S. No.	Course Code	Title of the Course	Credit Hours
1	EDBES356	Teaching of Physical Education	3
2	EDBES357	Instructional Technology for Physical Education	3
3	EDBES358	Trends and Contemporary Issues in Physical Education	3

OR

(III) Area of Specialization Courses in History

S. No.	Course Code	Title of the Course	Credit Hours
1	EDBES361	Teaching of History	3
2	EDBES362	Instructional Technology for History	3
3	EDBES363	Trends and Contemporary Issues in History	3

OR

(III) Area of Specialization Courses in Pak Studies

S. No.	Course Code	Title of the Course	Credit Hours
1	EDBES366	Teaching of Pak Studies	3
2	EDBES367	Instructional Technology for Pak Studies	3
3	EDBES368	Trends and Contemporary Issues in Pak Studies	3

OR

(III) Area of Specialization Courses in Pol. Science

S. No.	Course Code	Title of the Course	Credit Hours
1	EDBES371	Teaching of Pol. Science	3
2	EDBES372	Instructional Technology for Pol. Science	3
3	EDBES373	Trends and Contemporary Issues in Pol. Science	3

OR

(III) Area of Specialization Courses in Urdu

S. No.	Course Code	Title of the Course	Credit Hours
1	EDBES376	Teaching of Urdu	3
2	EDBES377	Instructional Technology for Urdu	3
3	EDBES378	Trends and Contemporary Issues in Urdu	3

OR

(III) Area of Specialization Courses in Arts & Experimental Crafts

S. No.	Course Code	Title of the Course	Credit Hours
1	EDBET351	Teaching of Arts & Experimental Crafts	3
2	EDBET352	Instructional Technology for Arts & Experimental Crafts	3
3	EDBET353	Trends and Contemporary Issues in Arts & Experimental Crafts	3

OR

(III) Area of Specialization Courses in Computer Studies & Data Analysis

S. No.	Course Code	Title of the Course	Credit Hours
1	EDBET356	Teaching of Computer Studies & Data Analysis	3
2	EDBET357	Instructional Technology for Computer Studies & Data Analysis	3
3	EDBET358	Trends and Contemporary Issues in Computer Studies & Data Analysis	3

OR

(III) Area of Specialization Courses in Teaching of Applied Electricity

S. No.	Course Code	Title of the Course	Credit Hours
1	EDBET361	Teaching of Teaching Of Applied Electricity	3
2	EDBET362	Instructional Technology for Teaching Of Applied Electricity	3
3	EDBET363	Trends and Contemporary Issues in Teaching Of Applied Electricity	3

OR

(III) Area of Specialization Courses in General Electronics

S. No.	Course Code	Title of the Course	Credit Hours
1	EDBET366	Teaching of General Electronics	3
2	EDBET367	Instructional Technology for General Electronics	3
3	EDBET368	Trends and Contemporary Issues in General Electronics	3

OR

(III) Area of Specialization Courses in Technical & Geometrical Drawing

S. No.	Course Code	Title of the Course	Credit Hours
1	EDBET371	Teaching of Technical & Geometrical Drawing	3
2	EDBET372	Instructional Technology for Technical & Geometrical Drawing	3
3	EDBET373	Trends and Contemporary Issues in Technical & Geometrical Drawing	3

OR

(III) Area of Specialization Courses in Psychology

S. No	Course Code	Title of the Course	Credit Hours
1	EDBER351	Teaching of Psychology	3
2	EDBER352	Instructional Technology for Psychology	3
3	EDBER353	Trends and Contemporary Issues in Psychology	3

OR

(III) Area of Specialization Courses in Statistics

S. NO.	Course Code	Title of the Course	Credit Hours
1	EDBER356	Teaching of Statistics	3
2	EDBER357	Instructional Technology for Statistics	3
3	EDBER358	Trends and Contemporary Issues in Statistics	3

(IV) Practice Teaching

S. NO.	Course Code	Title of the Course	Credit Hours
1	ED393	Practice Teaching-I	3
2	ED394	Practice Teaching-II	3

(V) Research Thesis (Subject Embedded)

S. NO.	Course Code	Title of the Course	Credit Hours
1	EDUBE 401	**Research Thesis (Subject Embedded)**	3

Award of degree

- Minimum CGPA required to qualify
- Approved research project/thesis
- Qualifying comprehensive examination

Faculty Strength

There are 48 faculty members in the institute.

Present Student Teacher Ratio in the Institute

The student teacher ratio in the institute is 6 students per teacher.

PHILOSOPHY OF EDUCATION

Course Code: EDUB302 **Credit Hours: 3**

Course Description

This course will help student teachers to understand various philosophical assumptions and approaches involved in educational process. It will help them to formulate and reflect on their own philosophy of education and help them to see how it influences their beliefs and practices about teaching and learning process.

Learning Outcomes

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

1. Comprehend the meaning and Scope of Philosophy
2. Understand the subdivisions of philosophy and their relevance to educational process
3. Analyze the leading Western Philosophies and Theories of Education
4. Contextualize how these philosophies help prospective teachers examine their beliefs about knowledge, their practice of ethical values in the school and class room as reflective practitioners
5. Analyze how philosophies and theories of education influence curriculum and teaching and learning in schools
6. Critically apply the theories of educational thinkers to reform educational policy and practice in Pakistan

Contents

1. **Introduction to Philosophy**
   - 1.1.1. Definition and scope of Philosophy
   - 1.1.2. Branches of Philosophy: Metaphysics, Epistemology, Axiology
   - 1.1.3. Relationship of Education and Philosophy
   - 1.1.4. Role of Philosophy in educational policy and practice
2. **Classical & Modern Philosophical Perspectives on Education**
   - 2.1.1. Idealism: Its Metaphysics, Epistemology, Axiology and educational implications Proponents: Plato
   - 2.1.2. Realism: Its Metaphysics, Epistemology, Axiology, and educational implications Proponents: Aquinas, Aristotle, Bacon, Locke
   - 2.1.3. Naturalism: Its Metaphysics, Epistemology, Axiology and educational implications Proponents: Rousseau
   - 2.1.4. Pragmatism: (Experimentalism: Its metaphysics, epistemology, axiology and educational implications. Proponents: John Dewey,
   - 2.1.5. Existentialism: Its Metaphysics, Epistemology, Axiology and educational implications. Proponents: Kierkegaard, Jean-Paul Sartre
3. **Sources of Knowledge**
   - 3.1.1. Revealed
   - 3.1.2. Intuition
   - 3.1.3. Authority
   - 3.1.4. Rational
   - 3.1.5. Empirical
4. **Concept of Education**
   - 4.1. Greek Philosophers' Perspective on Education
     - 4.1.1. Socrates
     - 4.1.2. Plato
     - 4.1.3. Aristotle
   - 4.2. Western Philosophers' Perspective on Education
     - 4.2.1. John Lock
     - 4.2.2. John Dewey
     - 4.2.3. Herbart

5. Muslim Philosophers' Perspective on Education

5.1.1. Imam Ghazali
5.1.2. Ibne-Khaldun
5.1.3. Ibn-e-Miskawayh
5.1.4. Al Farabi
5.1.5. Allama Muhammad Iqbal

6. Contemporary Philosophies and Curriculum Development

6.1.1. Perennialism
6.1.2. Progressivism
6.2. Essentialism
6.3. Deconstructionism
6.4. Pragmatism
6.5. Existentialism

7. Thinkers in Early Childhood Education

7.1. Maria Montessori
7.1.1. Froebel
7.1.2. Helen Parkhurst (Dolton Plan)
7.1.3. Paulo Freire (Critical Pedagogy)

Teaching-learning Strategies

The instructional strategies will focus on constructionist learning approach. These strategies will be diverse in line with the Contents. Therefore, these strategies will include but not limited to demonstration, cooperative learning, collaborative learning, teacher and student-led discussion, individual and group presentations, reflective practices and classroom activities.

Assessment and Examinations

The students will be assessed according to the following criteria

Examination	Marks Distribution
Sessional Work	25%
Mid-Semester	35%
Final Semester	40%

Suggested Readings

Dewey, J. (1902). *The child and the curriculum including, the school and society*. New York: Cosimo, Inc.

Heyting, F., Lenzen, D., & White, J. (Eds.).(2002). *Methods in philosophy of education*. New York: Routledge.

Noddings, N. (2015). *Philosophy of education*(4th ed.). UK: Hachette.

Ornstein, A. C. (2006). *Foundations of education*. NewYork: Houghton Mifflin Company.

Power, E. J. (1990).*Philosophy of education: Studies in philosophies, schooling, and educational policies*. University of Virginia: Waveland Press.

Zilversmit, A. (1993). *Changing schools: Progressive education theory and practice, 1930-1960*.Chicago: University of Chicago Press.

HUMAN DEVELOPMENT AND LEARNING

Course Code: EDU003 **Credit Hours: 3**

Course Description

This course is a study of the development of the individual from conception through adulthood with emphasis on physical, emotional and social growth. The effect of environment on development will be investigated

Learning Outcomes

On successful completion of this course, student will be able to:

1. Describe role of teacher in physical development
2. Explain characteristics of intellectual development in learner.
3. Analyze the interdependence of emotional and moral domain of development.
4. Demonstrate knowledge of physical, intellectual, social, emotional and language development of children in major developmental stages.
5. Define developmental theories and explain how theories are used to understand child behavior and development.

Contents

1. Introduction

1.1 Definitions of Human Development and Growth
1.2 Difference between Growth and Development
1.3 General Principles of Human Development
1.4 Factors influencing Human Development
1.5 A Frame work for studying Human Development

2. Physical Development

2.1 Concept and definition of individuals
2.2 Physical Development from Infancy to Adolescence
2.3 Physical Characteristics of Learners
2.4 Preschool and Kindergarten
2.5 Primary Level
2.6 Elementary Level
2.7 Secondary Level
2.8 Higher Secondary Level
2.9 Role of Teacher in Physical Development

3. Intellectual Development

3.1 Intellectual Development from Infancy to Adolescence
3.2 Intellectual Characteristics of Learners
3.3 Preschool and Kindergarten
3.4 Primary Level
3.5 Elementary Level
3.6 Secondary Level
3.7 Higher Secondary Level
3.8 Role of Teacher in Intellectual Development

4. Social Development

4.1 Social Development from Infancy to Adolescence
4.2 Social Characteristics of Learners
4.3 Preschool and Kindergarten
4.4 Primary Level

Assessment and Examinations

The students will be assessed according to the following criteria

Examination	Marks
Sessional work	25%
Mid Semester	35%
Final Semester	40%

Suggested Readings

Arif. H. A. (2003). *Human development and learning*. Lahore: Majeed Book Depot.

Berk, L. E. (2006).*Child development*(7th ed). Pearson Prentice Hall: Pearson Education, Inc.

Dembo, M.H. (1994). *Applying educational psychology* (5th ed). New York: Longman.

Mehnaz, A. (2007). *Assessing children's development through observation.* Children's Global Network Pakistan.

Mehnaz, A. (2007). *Individualized teaching in ECE.*Children's Global Network Pakistan.

Ormrod, J.E. (1998). *Educational psychology developing learners*. New Jersey: Prentice Hall.

Santrock, J.W. (2001). *Educational psychology*. Boston: McGraw Hill.

Vander-Zanden, J. W. (1997). *Human development*. (6th ed). New York: The McGraw-Hill Companies, Inc.

Woolfolk, A. (2004). *Educational Psychology* (9th ed). Singapore: Pearson Education, Inc.

4.5 Elementary Level
4.6 Secondary Level
4.7 Higher Secondary Level
4.8 Role of Teacher in Social Development

5. Emotional Development

5.1 Emotional Development from Infancy to Adolescence
5.2 Emotional Characteristics of Learners
5.3 Preschool and Kindergarten
5.4 Primary Level
5.5 Elementary Level
5.6 Secondary Level
5.7 Higher Secondary Level
5.8 Role of Teacher in Emotional Development

6. Moral Development

6.1 Morality as Rooted in Human Nature
6.2 Morality as the Adoption of Social Norms
6.3 Moral Reasoning
6.4 Development of Morally Relevant Self-Control
6.5 Correlates of Moral Conduct

7. Language Development

7.1 What is Language?
7.2 Components of Language
7.3 The Sequence of Language Development
7.4 Biological and Environmental Influences on Language Development

8. Human Learning

8.1 Definition and Concept of Learning
8.2 Process of Learning
8.3 Factors Affecting Learning
8.4 Thorndike's Laws of Learning
8.5 Transfer of Learning

9. Approaches to Learning

9.1 Behavioral Approach
9.2 Cognitive Approach
9.3 Social Learning Approach
9.4 Humanistic Approach

10. Individual Differences

10.1 Sources and Types of Individual Differences
10.2 Dealing with Academic Ability Grouping
10.3 Differences in Learning and Thinking Styles
10.4 Effects of Individual Differences on Learning

Teaching-learning Strategies

The instructional strategies will focus on constructionist learning approach. These strategies will be diverse in line with the Contents. Therefore, these strategies will include but not limited to demonstration, cooperative learning, collaborative learning, teacher and student-led discussion, individual and group presentations, reflective practices and classroom activities.

ISLAMIC CULTURE & IDEOLOGY OF PAKISTAN

Course Code: ED300 **Credit Hours: 3**

Course Description

2 Islamic Culture and Ideology of Pakistan engages with the world of Islam from Muhammad (PBUH) to the present on the basis of knowledge of the languages of the Islamic civilisation. The course will provide an overview of the doctrine, the rituals, the values and the morals of Islam; a brief review of the Quran, its characteristics, its main themes, and its relationship to the prophetic tradition; the history and development of Islamic thought and movements will be discussed; the diversity in understanding Islamic thoughts and teachings, and the cultural differences across the Muslim nations will be explored; modern expressions of Islamic thought and practices will be reviewed.

Thematically, the course covers a wide range of methods and topics deriving from the close investigation of the history, religions, languages, politics, societies, economies, legislations, philosophy, art, archaeology and historical area studies of the Islamic world.

This course also provides the purpose of the creation of Pakistan which is based on the ideology of Islam which provided legitimacy to the leadership and established a monolithic Islamic affinity transcending the political, economic and social realms.

Learning Outcomes

By the end of the course, students should have improved their ability in:

1. Developing an understanding of the diversity in Islamic and different cultures
2. Identifying major events and themes in Islamic History
3. Critically evaluating and interpreting a variety of cultures and their impacts on Islam
4. Developing writing insights to the Islam and Ideology of Pakistan
5. Developing awareness and apperception among students towards Islamic Culture and Islamic Ideology and all great struggles for achieving independent homeland

Content

1. Major Doctrine: Brief Contents of the of faith
2. Rituals: Brief description of the rituals.
3. Manners: Contents of the recommended behaviour of Muslims in their daily life
4. Early Islam: A brief biography of the Prophet, the rightly guided successors.
5. Examples of Christian Muslim Relations.
6. Identity: Different approaches to Islamic identity and implications for social integration
7. Spirituality: Different approaches to Islamic spirituality and how it becomes separate from or manifested in daily life.
8. Proselytizing: Calling others to Islam, different emphases and approaches by different groups and communities.
9. Activism: Muslims working for social justice, fighting poverty, humanitarian work, the environment, and other causes relevant to their societies and humanity
10. Islam and other societies: Comparative analysis
11. Definition of Ideology
12. Ideology of Pakistan
13. Two nation theory
14. Factors creating the Idea of a separate homeland
15. Anti-Muslim Campaign

16. In acceptance of British Rule
17. Hindus Betrayed Muslims
18. Refusal of Muslim identity
19. Basic points of Ideology of Pakistan
20. Analysis of relation between Islamic culture and Ideology of Pakistan

Teaching-learning Strategies

The instructional strategies will focus on constructionist learning approach. These strategies will be diverse in line with the contents. Therefore, these strategies will include but not limited to demonstration, cooperative learning, collaborative learning, teacher and student-led discussion, individual and group presentations, reflective practices and classroom activities.

Assessment and Examinations

The students will be assessed according to the following criteria.

Examination	Marks Distribution
Sessional work	25 %
Mid Semester	35%
Final Semester	40%

Suggested Readings

Modoodi, A. (2013). *Islami tehzeeb aurus k asool o mubadi.* Lahore: Islamic Publications

Nadvi, S. A. (2005). *Islami Tehzeeb o Saqafat.* Islamabad: Dawat Academy.

Mujahid, S. (2001).*Ideology of Pakistan.* Islamabad: International Islamic University: Islamic Research institute.

Rab Nqwaz, P. (2002). *Islami culture aur uska maadi-o-rohani culture: Taqabli jaiza.* Lahore: Ejaz Publications.

Gondal, A. (2018). *Pakistan ki nazriyati buniyaden.* Lahore: Islamic Reearch Index.

Iqbal, J. (1971).*Ideology of Pakistan. Lahore*: Ferozesons.

Sayeed, K. B. (2003). *Pakistan the formative phase.* Karachi: Oxford University Press.

Cohen, S. P. (2005). *The idea of Pakistan.* Karachi: Oxford University Press.

EDUCATION IN PAKISTAN

Course Code:ED303 **Credit Hours: 3**

Course Description

This course is designed to develop prospective teachers towards knowledge of education of the development of education in Pakistan. Prospective teachers will develop their knowledge about different phases of development of education keeping in view different stages like pre-primary education, primary education, elementary education, secondary education and higher education. In this process different policies and plans will also be studied. Teacher educator will ensure that different components of education like curriculum, teacher education, school buildings, and physical facilities are also taken into account during the enactment of the course.

Learning Outcomes

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

1. Understand role of Islamic values and ideology of Pakistan in education.
2. Decipher the nature and purposes of education in the Mughal Empire, the British period and post-independence period.
3. Delineate the historic roots and subsequent development of the madrasah education.
4. Evaluate education in Pakistan in the light of different policies and plans.
5. Critically analyse educational development at different levels of education i.e. Pre-primary education, Primary education, Elementary education, secondary education and higher education.

Contents

1. Education, its meaning and types

1.1 Definitions and meaning of Education
1.2 Types of education
1.2.1 Formal
1.2.2 Non Formal
1.2.3Informal
1.3 Education as a process
1.4 Aims of education as stated in National Educational policy 2009

2. Education in sub-continent Indo-Pak Since 712 A.D

2.1 Education in sub-continent Indo-Pak during Muslim period since 712A.D
2.2 Education in sub-continent Indo-Pak during Mughal period
2.3 Education in sub-continent Indo-Pak during British rule.
2.4Comparison of characteristics of Education system between Muslim period and British rule.

3. Education in Pakistan after independence

3.1 First Educational Conference 1947.
3.2 National Education Commission 1959.
3.3 Education Commission for Welfare of students 1962.
3.4 Education policy 1972.
3.5 National Education Policy 1978.
3.6 Education policy 1992-2010
3.7 Education Sector reforms 2001
3.8 Education policy 2009
3.9 Comparison of characteristics of different education policies and their role indevelopment of education in Pakistan.

4.Status of Formal Traditional System of Education

4.1 Pre-primary education
4.2 Primary Education
4.3 Elementary Education
4.4 Secondary Education
4.5 Higher Education
4.6 Vocational Education
4.7 Technical Education
4.8 Teacher Education

5. Madrassah Education

5.1Madrassah Education During Mughal Period
5.2Madrassah Education During British Period
5.3Madrassah Education after independence
5.4 Study of "Muslim educational movements", contribution of Deoband, Aligarh, Jamia Millia, Anjuman-e-Himayatul Islam, and Sindh Madersat-ul-Islam.

6.Education as an agent of Change

6.1 Meaning and factors of social change
6.2 Education as tool for social change
6.3 Education as conservative and creative force.
6.4 Education for peace and universal brotherhood.

7. Salient Features of Education Policies

7.1 All Pakistan Educational Conference 1947
7.2 The Commission on National Education 1959
7.3 The Education Policy 1972-80
7.4 National Education Policy 1979
7.5 National Education Policy 1992
7.6 National Education Policy 1998-2010
7.7 National Education Policy 2009

Teaching-learning Strategies

The instructional strategies will focus on constructionist learning approach. These strategies will be diverse in line with the contents. Therefore, these strategies will include but not limited to demonstration, cooperative learning, collaborative learning, teacher and student-led discussion, individual and group presentations, reflective practices and classroom activities.

Assessment and Examinations

The students will be assessed according to the following criteria.

Examination	Marks Distribution
Sessional work	25 %
Mid Semester	35%
Final Semester	40%

Suggested Readings

Al-Naqib-al-Attas, S. M. (1979). *Aims and learning outcomes of education.* Jeddah: King Abdul Aziz University.

Iqbal, M (1999). *The Reconstruction of Religious thought in Islam. Stanford California: Stanford University Press.*

John, S. B. (1987). *Modern philosophies of education.* New Delhi: TATA McGraw Hill

Mansoor, A. Q. (1983). *Some aspects of Muslim education.* Lahore: Universal Books.

SOCIAL FOUNDATION OF EDUCATION

Course Code: ED331 **Credit Hours: 3**

Course Description

The purpose of this course is to provide Student Teachers with a strong foundation for understanding the relationship between and among teachers, the school, and the families and community that support the school. Basic conceptualizations of educational institutions and the role of the teacher in relating to these institutions will be considered. Student Teachers will also explore how cultural, social, and historical forces have shaped their understanding of the relationship teachers have with schools, communities, and families in Pakistan. The course will explore the social context of schooling and examine how the work of teachers is nested within school and community. It will provide orientation to the process of socialization in schools and how social factors affect education.

Practical application of the course will be emphasized as Student Teachers explore teaching and learning within both the school and the community. They will identify strategies, practices, and relationships that have proven fruitful within familiar contexts, and learn how to identify and respond to challenges in school, community, and teacher relationships. Student Teachers will identify how culture, gender, special needs, equity and equality, and collaborative working conditions affect the school and community.

Learning outcomes

Contents

1. Society, Community, and Education

1.1 Introduction and overview of the course
1.2 Introduction to society, community, and education
1.3 Structures and functions of community and schools in Pakistan
1.4 Impact of education on society
1.5 Role of education in strengthening Pakistani communities

2.Understanding social interaction in schools and communities

2.1 Meaning of social interaction and socialization
2.2 Levels of social interaction
2.3 Elements of social interaction
2.4 Types of social interaction
2.4.1 Cooperation
2.4.2 Competition
2.4.3 Conflict
2.4.4 Accommodation
2.4.5 Assimilation
2.5 Social groups and individual and group behaviour
2.6 The roles of schools and teachers in developing social interaction for peace, harmony, and tolerance in Pakistani communities

3. School and Culture

3.1 Main characteristics of culture
3.2 Elementary concepts of culture
3.3 Culture and cultural elements of Pakistani communities
3.4 Role of education and school in the protection and transmission of culture
3.5 Impact of media on school and culture
3.6 Impact of technology on school and culture

4. Relationships between School and Community

4.1 School as a social, cultural, and community institution

4.2 Effects of schools on communities and communities on schools

4.3 School as a hub for community services

4.4 A critical analysis of the effective roles of school and teachers in Pakistani communities

5. Social Institutions

5.1Definition and types of social institutions

5.2Educational and religious institutions

5.3Critical analysis of the role of social institutions in Pakistani schools

6. The Teacher's Role in School and the Community

6.1 Teacher as an integral part of community

6.2 Teacher as a change agent in Communities and Schools

6.3 Teachers as role models through their participation in community activities

6.4 Effects of teachers and schools on individual and group behaviour

7. The Working Context of Pakistani Teachers

7.1 Teacher as a social activist

7.2 Teacher's leadership roles within and outside schools

7.3 Teacher's role in establishing linkage among stakeholders

Teaching-learning Strategies

The instructional strategies will focus on constructionist learning approach. These strategies will be diverse in line with the contents. Therefore, these strategies will include but not limited to demonstration, cooperative learning, collaborative learning, teacher and student-led discussion, individual and group presentations, reflective practices and classroom activities

Assessment and Examinations

The students will be assessed according to the following criteria

Examination	Marks
Sessional work	25%
Mid Semester	35%
Final Semester	40%

Suggested Readings

Bashiruddin. A., &Retallick, J. (2009).*Becoming teacher educator.* Karachi: Aga Khan University-Institute of Educational Development.

Butin, D. (2005). Guest editor's introduction: How social foundations of education matters to teacher preparation: A policy brief. *Educational Studies, 38*(3), 214-229.

Kosnick, C., & Beck, C. (2009).*Priorities in teacher education: The 7 key elements ofpre-service preparation.* New York: Routledge.

Liston, D., Witcomb, J., &Borko, H. (2009). The end of education in teacher education: Thoughts on reclaiming the role of social foundations in teacher education. *Journal of Teacher Education, 60*(2), 107-111.

Saha, J. (2008). Sociology of education. In T. Good (Ed.), *21st Century education: ASuggested Readingshandbook.* Thousand Oaks, CA: Sage.

CURRICULUM DEVELOPMENT: THEORIES AND PRACTICES

Course Code: EDEB332 **Credit Hours: 3**

Course Description

Curriculum is designed to provide desirable learning experiences in the education system. Curriculum development is a process in which choices of learning experiences are made and activated through coordinated activities. The process starts from selection of aims, goals and Learning Outcomes, which guide the structure and provide direction. To teaching learning process the next stages are selection of Content and its organization, selection of instructional strategies and evaluation methods are stated to Contents all the activities needed for students' development. Prospective teachers require knowledge and skills about the curriculum development: theory and practice to become an effective & efficient practitioner curriculum is considered of the core course of discipline of education. Thus it is imperative to tech this course to prospective teachers.

Learning Outcomes

At the end of the course, the student will be able to:

1. Understand the concept of curriculum
2. Explain the foundations of the curriculum
3. Discuss the needs and principles of curriculum;
4. Understand the factors affecting curriculum development
5. Explain the elements/components of curriculum development;
6. Explain different types of curricula;
7. Identify the problems and issues of curriculum development in Pakistan.
8. Understand the theory of curriculum development
9. Understand the process of curriculum development;
10. Understand the practices of curriculum development in Pakistan.

Contents

1. Introduction to Curriculum

1.1 Concept of curriculum
1.2 Difference between curriculum, syllabus and text book
1.3 Need for curriculum development,
1.4 Principals of curriculum development
1.5 Elements of curriculum: Learning Outcomes, Content, Teaching methods and evaluation.
1.6 Factors influencing curriculum development.

2. Foundations of Curriculum

Philosophical/Ideological Foundations
2.1 Historical Foundations
2.2 Psychological Foundations
2.3 Socio-economic and Cultural Foundations
2.4 Political Foundations

3. Curriculum Development Process

3.1 Situation analysis
3.1.1Need Assessment
3.1.2 Phases of need assessment
3.1.3 Conducting situation analysis
3.2 Selection of aims, goals and Learning Outcomes

3.2.1 Taxonomy of educational Learning Outcomes
3.2.2 National Learning Outcomes of education in the current education policy
3.3 Selection of Content
3.3.1 Organization of Content
3.3.2 Selection and organization of learning experiences
3.3.3 Selection of Instructional Strategies
3.4 Evaluation of evaluation
3.4.1 Types of evaluation
3.4.2 Tools of evaluation
3.4.3 Reporting
3.4.4 Evaluating curriculum and multiple textbooks

4. Curriculum Design

4.1 Concept of curriculum design
4.2Criteria of selecting curriculum design
4.3 Types of curriculum
4.3.1 Centred Designs
4.3.2 Learner Subject centred Designs
4.3.3 Problem or topic centred Designs
4.3.4 Integrated curriculum

5. Models of Curriculum Development

5.1 Tyler Model
5.2 Hilda Model
5.3 Lewis Model
5.4 Oliva Model
5.5 Wheeler Model
5.6 Dynamic Model
5.7 Skel Beck Model

6. Process and Problems of Curriculum Development in Pakistan

6.1 Curriculum development at elementary and secondary level
6.2 Curriculum development at higher education level
6.3 Curriculum revision and role of HEC
6.4 Curriculum development for Adult Literacy
6.5 Role of teacher in curriculum development
6.6 Problems and issues of curriculum development in Pakistan

7. Patterns of curriculum

7.1Conservative liberal art
7.2Educational technology
7.3Humanistic
7.4Vocational
7.5Social re-construction
7.6De-schooling

8. The key features of a democratic and educational national curriculum

8.1 A curriculum for equality of life
8.2 The role of the professional in sustainable democracy
8.3 Fundamental principles

Teaching Learning Strategies

9.1.1 Lectures
9.1.2 Brain storming session
9.1.3 Small group discussion
9.1.4 Study tour to curriculum development institutions.

Assessment and Examinations

The students will be assessed according to the following criteria.

Examination	Marks
Sessional Work	25%
Mid-Semester	35%
Final Semester	40%

Suggested Readings

Children Resource International. (2004). *Child-centered Curriculum* (unit 3rd). Islamabad.

David, M. (1997). *Teaching skills in further and adult education* (rev. ed.). London: City and Guilds.

Farooq, R. A. (1993). *Education System in Pakistan.* Islamabad: Asia Society for Promotion of Innovation and Reforms in Education, Islamabad.

Kelly, A.V. (1999). *The curriculum, theory and practice.* London: Paul Chapman.

MS-Neil, J.D. (1990). *Curriculum: A comprehensive introduction* (4th ed). Los Angeles: HarperCollins.

Murry, P. (1993). *Curriculum development and design* (2nd ed). St. Leonards: Allen and Unwin.

Saxena, S. N. R., & Oberoi, S.C. (1994). *Technology of teaching.* Merrut: Royal Book Depot.

Sharma, R. C. (2002). *Modern methods of curriculum organization.* New Delhi:

Wiles, J., & Bondi, J. (1993). *Curriculum development.* New York: McMillan Publication Company.

RESEARCH METHODS IN EDUCATION

Course Code: ED319 **Credit Hours: 3**

Course Description

This course is an introduction to educational research and methods used in the study of educational settings and institutions. One of the major purposes of this course is to familiarize students with basic methods and techniques for designing, conducting, and analysing research in education. Emphasis is on developing appropriate and researchable questions, reviewing the literature critically, and planning cogent research.

Equal attention will be paid to the process of instrument development (e.g. attitude scale, questionnaire) so that valid and reliable data can be produced and subsequently analysed. The second major purpose of this course is to build up a solid knowledge base on which selection of an appropriate statistical tool from a variety of parametric and non-parametric procedures can be made.

Extensive emphasis will be placed on using the most modern tools for locating information resources and for communicating and sharing research knowledge with fellow students and other professionals. Thus tools such as e-mail, the Internet, the World Wide Web. Electronic data base, and electronic search engines are integral part of this course.

Learning Outcomes

Upon successful completion of the course, students will be able to:

1. Understand and describe the importance and use of educational research.
2. Identify and discuss the major types of research methodologies;
3. Identify and conceptualize research question and problem statements.
4. Review and evaluate relevant literature;
5. Formulate and state the hypotheses;
6. Describe techniques related to sampling, statistical analysis, and research design.
7. Develop data collection instruments commonly used in research in education;
8. Define and discuss the concept of validity and reliability;
9. Analyse and interpret statistical data
10. Use the Internet for access to ERIC, the www., e-mail and other informational resources;
11. Develop a research proposal;
12. Evaluate a research report/article.

Contents

1. **Introduction to educational research**
   - 1.1 Meaning and definition of educational research
   - 1.2 The scientific method
   - 1.3 Purposes and features of research
   - 1.4 Application of the scientific methods in education
2. **Types of research**
   - 2.1 Basic verses applied research
   - 2.2 Historical research
   - 2.3 Descriptive research
   - 2.4 Correlational research

- 2.5 Causal comparative research
- 2.6 Experimental research
- 2.7 Action research
- 2.8 Qualitative and quantitative research

3. Research problem

- 3.1 Selection
- 3.2 Sources
- 3.3 Characteristics/criteria
- 3.4 Statement

4. Review of related literature

- 4.1 Definition, purpose, and scope
- 4.2 Preparation
- 4.3 Sources
- 4.4 Abstracting
- 4.5 Reporting

5. Research hypothesis or questions

- 5.1 Definition and purpose
- 5.2 Characteristics
- 5.3 Types of hypotheses
- 5.4 Stating the hypothesis/question

6. Sampling

- 6.1 Definition and purpose
- 6.2 Techniques of sampling
- 6.3 Probability sampling techniques
- 6.4 Random sampling
- 6.5 Stratified sampling
- 6.6 Cluster sampling
- 6.7 Systematic sampling
- 6.8 Non-probability sampling techniques
- 6.9 Convenience sampling
- 6.10 Purposive/judgmental sampling
- 6.11 Snowball sampling
- 6.12 Quota sampling

7. Research instruments

- 7.1 Purpose of research instruments
- 7.2 Characteristics of research instruments
- 7.3 Validity
- 7.4 Reliability
- 7.5 Usability
- 7.6 Construction of instruments
- 7.7 Questionnaire
- 7.8 Observation scale
- 7.9 Rating scale
- 7.10 Tests (and their types)

8. Research types (detail description)

8.1 Historical research

8.2 Descriptive research

8.3 Correlational research

8.4 Causal-comparative research

8.5 Experimental research

9. Collection and analysis of data

9.1 Data collection

9.2 Scoring, coding and tabulation of data

9.3 Data analysis

9.4 Interpretation of data

10. Statistics in education

10.1 Need of statistical analysis

10.2 Levels of measurement

10.3 Descriptive statistics

10.4 Inferential statistics

10.5 Parametric tests (t-test, f-test)

10.6 Non-parametric test (x^2)

11. Writing research proposal and report

11.1 General rules for writing and typing

11.2 Formal and style

11.3 Type of research reports

11.4 Theses and dissertations

11.5 Journals article

11.6 Papers read at professional meetings

Teaching-learning Strategies

The instructional strategies will focus on constructionist learning approach. These strategies will be diverse in line with the course contents. Therefore, these strategies will include but not limited to demonstration, cooperative learning, collaborative learning, teacher and student-led discussion, individual and group presentations, reflective practices and classroom activities.

Assessment and Examinations

The students will be assessed according to the following criteria.

Examination	Marks Distribution
Sessional work	25 %
Mid Semester	35%
Final Semester	40%

Suggested Readings

Following books will be used as **TEXTBOOKS** for this course

Creswell, J. W. (2014). *Research design: Quantitative, qualitative and mixed methods approaches*. London: Sage Publications.

Creswell, J. W. (2012). *Research design: Planning, conducting, and evaluating Quantitative, qualitative research.* London: Pearson.

Fraenkel, J. R., Wallen, E. N., & Hyun, H. H. (2012).*How to design and evaluate research in education*. New York: McGraw-Hill.

Gall, M. D., Gall, J. P., & Borg, W. R. (2003).*Educational research: An introduction.* New York: Pearson

Gay, L.R. (2012). *Educational research: competencies for analysis and application.* New York: Macmillan Publishing Co.

Johnson, B., & Christensen, L. (2012).*Educational research: Quantitative, qualitative and mixed approaches.* London: Sage Publications.

Further Readings/ Additional Readings

Anderson, G., & Arsenault, N. (1998).*Fundamental of educational research (2nd ed).* London: The Falmer Press.

Abell, N., Springer, D. W., &Kamata, A. (2009).*Developing and validating rapid assessment instrument.* New York: Oxford University Press.

Babbie, E. (2010, 2007). *The practice of social research.* Australia: Wadsworth Cengage Learning.

Cohen, L., Manion, L., & Morrison, K. (2007).*Research methods in education (5th ed.).* New York: Routledge.

Colton, D., & Covert, R. W. (2007).*Designing and constructing instruments for social research and evaluation.*United State of America: Jhon Wiley & Sons, Inc.

DeMarrais, K. &Lapan, S. D. (2004).*Foundations for research methods of inquiry in education and social science.*London: Lawrence Erlbaum Associates Publishers.

Fink, A. (2014). *Conducting research literature reviews: From the internet to paper.* Los Angeles: Sage Publications.

McCoach, B. D., Gable, R. K., & Madura, J. P. (2013). *Instrument development in the affective domain: School and corporate Applications.* New York: Springer.

Neuman, W. L. (2015). *Social research methods: Qualitative and quantitative approaches.* New Dehli: Pearson.

Ridley, D. (2012). *The literature review: A step-by-step guide for students.* Los Angeles: Sage Publications.

Scott, D., & Usher, R. (2011).*Researching education: Data, methods and theory in educational enquiry.* London: Sage.

EDUCATIONAL ASSESSMENT AND EVALUATION

Course Code:ED318 **Credit Hours: 3**

Course Description

In this course, the students will study the theory and apply the same for test development purposes. Thus they will understand the procedures, applications and limitations of tests, techniques of administering individual/group tests and of interpreting assessment instruments and profiles.

Learning Outcomes

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

1. Understand the concept and nature of testing & evaluation
2. Develop and analyze test items for assessing different abilities of students
3. Recognize and describe the different types of measurement instruments
4. Differentiate between standardized and classroom tests
5. Define and apply introductory analytical terms and concepts, including basic Statistical knowledge
6. Analyze and explain student profiles based on various outcomes of testing interpret scores and results of different measurement techniques

Contents

1. Introduction

- 1.1 Nature and meaning of test, assessment, measurement and evaluation
- 1.1 Distinction between test, assessment, measurement and evaluation
- 1.2 Role of assessment in education
- 1.3 Role of evaluation in education

2. Different types of test

- 2.1 Concept of standardized and non-standardized test
- 2.2 Norm-Suggested Readings test
- 2.3 Criterion-Suggested Readings test
- 2.4 Performance assessment
- 2.5 Individual and group tests

3. Characteristics of Test

- 3.1 Reliability
- 3.1.1 Definition of reliability
- 3.1.2 Types of reliability
- 3.1.3 Use of reliability
- 3.2 Validity
- 3.2.1 Definition of validity
- 3.2.2 Types of validity
- 3.2.3Evidence of validity
- 3.2.4Reliability and validity

4. Designing Learning Outcomes

- 4.1Selection of instructional Learning Outcomes
- 4.2 Bloom Taxonomy
- 4.3 Solo Taxonomy
- 4.5Methods of stating instructional Learning Outcomes
- 4.6 Preparing a table of specification
- 4.7 Use the table of specification as a basis for preparing test

5. Statistical concepts related with testing

5.1 Scales of measurement
5.2 Measures of central tendency
5.3 Indices of variability
5.4Types of distributions
5.5 Correlation

6 Types of Tests

6.1 Supply type items
6.1.1 Essay type
6.1.2 Short answer
6.1.3 Completion
6.1.4 Advantages and limitations
6.2 Rules for constructing supply type questions
6.3 Methods of improvement and effective use (Rules for scoring essay tests etc)
6.4 Selection types test
6.4.1 Multiple choice items
6.4.2 True false items
6.4.3 Matching items
6.4.4 Completion items
6.5 Rules for constructing various types of objective test items

7. Item Analysis

7.1 Test construction
7.2 Test administration
7.3 Item analysis

8. Assembling, Administering and Evaluating the Test

8.1 Reviewing and editing the items
8.2 Arranging the items in the test
8.3 Preparing directions
8.4 The problem of guessing
8.5 Reproducing the test
8.6 Administering the test
8.7 Scoring the test
8.8 Building test file
8.9 Item bank

10. Grading and Reporting

10.1 Concept of grading
10.2 Types of grading
10.3 Reporting results to different stakeholders

11. New Trends and Issues

11.1 Portfolio Assessment
11.2 Dynamic Assessment
11.3 Computer assisted assessment and evaluation

Assessment and Examinations

The students will be assessed according to the following criteria.

Examination	Marks Distribution
Sessional work	25 %
Mid Semester	35%
Final Semester	40%

Suggested Readings

Anastasi, A. (1996). *Psychological testing.* New York: Macmillan

Gronlund, N.E.,& Linn, R.L. (1998) *Measurement and evaluation in teaching.*London: MacMillan.

Linn, R. L.,& Miller, D. M. (2005).*Measurement and assessment in teaching* (9th ed.). Upper Saddle River, NJ: (Merrill) Prentice-Hall.

Lissitz, R., & William, S. (2002).*Assessment in educational reform: Both means and ends.*Boston, MA: Allyn and Bacon.

Lorber, M. A., Adel, A. B., & Barbara, M.(2005).*Learning outcomes, methods and evaluation in secondary education.* New York: Pearson Custom Publishing Co.

McMillan, J. H. (2007).*Classroom assessment: Principles and practice for effective standards-based instruction* (4thed.). Boston, MA: Allyn and Bacon.

Popham, W. J. (2000).*Modern educational measurement: Practical guidelines for educational leaders* (3rd ed.). Boston, MA: Allyn and Bacon.

EDUCATIONAL LEADERSHIP AND MANAGEMENT

Course Code: EDU005 **Credit Hours: 3**

Course Description

The course is designed for aspiring educational leaders and those interested in understanding more about management and leadership within educational contexts. The focus is on improving knowledge and understanding by relating theory and best practice to participants own contexts and situations, thus enabling development of the skills and competencies necessary to refine and improve practice. Students will use the knowledge and skills gained to improve their own practice, in leadership and management roles, across the whole range of educational institutions and related organizations.

Learning Outcomes

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

1. Explain the concept of school organization, management and discipline and factors affecting school discipline
2. Organized school activities (curricular and co-curricular) affectively and manage available resources (material, human and time) efficiently.
3. Different sheet between the concept of leadership and management utilizing the major indicator of effective leadership management.
4. Maintain school record and activities according to the school mandate.
5. Explain the functions of basic rules of leave pay and allowances E & D, codes of ethics

Contents

1. **Introduction to Management**
   - 1.1 Definitions of Management and Leadership.
   - 1.2 Difference between leadership and management
   - 1.3 Difference between general and educational management and Leadership.
2. **Process of Management**
   - 2.1 Planning
   - 2.2 Organizing
   - 2.3 Staffing
   - 2.4 Communicating
   - 2.5 Controlling
   - 2.6 Budgeting
3. **Resource Management**
   - 3.1 Human resources
   - 3.2 Physical resources
   - 3.3 Financial resources
   - 3.4 Information and learning resources (Library, AV Aids and instructional material)
4. **Rules and Regulations**
   - 4.1 Rules regarding appointment, leaves, pay and allowances.
   - 4.2 Efficiency & Discipline rules
   - 4.3 Terms of Suggested Readings of various personals in the school
   - 4.4 Code of ethics

5 **Records in Educational Institutions**

5.1 Attendance register
5.2 Leave register
5.3 Stock register
5.4 Cash register (fee, different kind of funds)
5.5 Personal files of teachers and other staff
5.6 Other academic record (students result, staff meetings etc.)

6 **Theories of Leadership**

6.1 Trait Theories
6.2 Contingencies Theories

7 **Leadership Style**

7.1 Democratic
7.2 Autocratic
7.3 Lauzis-faire
7.4 Leadership style and Headship

Teaching-learning Strategies

The instructional strategies will focus on constructionist learning approach. These strategies will be diverse in line with the course contents. Therefore, these strategies will include but not limited to demonstration, cooperative learning, collaborative learning, teacher and student-led discussion, individual and group presentations, reflective practices and classroom activities.

Assessment and Examinations

The students will be assessed according to the following criteria.

Examination	Marks Distribution
Sessional work	25 %
Mid Semester	35%
Final Semester	40%

Suggested Readings

Bovee, C.L. et al. (1995). *Management.* International Edition. New York: McGraw Hill, Inc.

Burden, R.P. (1995).*Classroom management and discipline: Methods to facilitate cooperation instruction.* New York: Longman.

Bush, T. B. et al. (1999). *Educational management:* Re-defining theory, policy and practice. London: Longman.

Bush, T., & Bush, T. (2003). *Theories of educational leadership and management.* London: Sage Publications.

Bush, T., Bell, L., &Middlewood, D. (2010). *The principles of educational leadership and management.* Los Angeles: SAGE.

Gamage, D., & Pang, N. (2003). *Leadership and management in education.* Hong Kong: Chinese University Press.

Razik, T., & Swanson, A. (2001). *Fundamental concepts of educational leadership.* Upper Saddle River, N.J: Merrill/Prentice Hall.

EDUCATIONAL STATISTICS& COMPUTER APPLICATIONS

Course Code: EDBE320 **Credit Hours: 3**

Course Description:

Educational researchers are facing very demanding research questions now which need to be explored to greater depth as compared to few decades ago. Statistical techniques are a tool for analysing the results in empirical research, which is increasingly used in present educational research. Understanding of such methods and techniques has become an integral part of conducting educational research. In order to apply these statistical techniques and procedures, proficiency to use computer is utmost important. This course is designed to provide not only the understanding of basic statistical concepts as they are used in educational research but It is also intended to develop the basic knowledge to use computers to conduct statistical procedures. Hence the contents of the course necessarily cover the contents in this regard. As a result of this course the participants will become better interpreters of educational data by mastering the statistical concept and techniques as well as proficient users of computer.

Learning Outcomes

At the end the course students will be able to:

1. understand descriptive statistics
2. differentiate different test of statistics
3. use statistical test in educational research
4. interpret result of data analysis
5. explore new techniques in statistics research purpose

Contents

1. **Introduction to statistics**
   - 1.1 Introduction
   - 1.2 Basic concepts
   - 1.3 Historical development of statistics
   - 1.4 Types of Measurement Scale
2. **Frequency distributions and graphs**
   - 2.1 Introduction
   - 2.2 Frequency distributions
   - 2.3 Introduction to graphs
   - 2.4 Graphs for qualitative variables
   - 2.5 Graphs for quantitative variables
   - 2.6 Shapes of distributions
3. **Measures of central tendency**
   - 3.1 Introduction
   - 3.2 Mean
   - 3.3 Median
   - 3.4 Mode
4. **Measures of dispersion, skewness, and kurtosis**
   - 4.1 Introduction to measures of dispersion
   - 4.2 Measures of dispersion (Range, Quartile Deviation, Standard Deviation, variance)
   - 4.3 Dispersion and the normal distribution
   - 4.4 Skewness and kurtosis

5. **Correlation**
   - 5.1 Introduction to correlation
   - 5.2 Pearson Product-Moment correlation coefficient
   - 5.3 Spearman Rank correlation
   - 5.4 Other kinds of correlation coefficients
6. **Statistical inference: one sample**
   - 6.1 Introduction to hypothesis testing
   - 6.2 One-sample t-test for a mean
7. **Statistical inference: two samples**
   - 7.1 Introduction to hypothesis testing for two samples
   - 7.2 Two- sample t test and confidence interval for means using independent & dependent samples
8. **Introduction to the analysis of variance and covariance**
   - 8.1 Introduction to analysis of variance
   - 8.2 Basic concepts in ANOVA
   - 8.3 Multiple comparison procedures
9. **Statistical inference for frequency data**
   - 9.1 Chi-Square test
   - 9.2 Testing Goodness of Fit
   - 9.3 Testing independence
10. **Statistical Inference for Ranked Data**
    - 10.1 Introduction to Assumption-Free tests
    - 10.2 Mann- Whitney U Test for two independent samples
    - 10.3 Wilcoxon test for dependent samples
11. **Introduction to computers**
    - 11.1 Introduction
    - 11.2 Computers' use in society and future needs
    - 11.3 Computers' types
    - 11.4 Data & Informatics
12. **Introduction to basic components of Computer**
    - 12.1 What is hardware
    - 12.2 Hardware devices
    - 12.3 What is software
    - 12.4 Software devices
    - 12.5 Input devises
    - 12.6 Output devices
13. **Computers in education**
    - 13.1 CAI
    - 13.2 Packages used for CAI
    - 13.3 Computer Managed Learning CML
14. **Computer Lab Practices**
    - 14.1 Working with MS Word
    - 14.2 Working with MS Excel
    - 14.3 Working with MS Power Point
    - 14.4 Working on SPSS

Teaching-learning Strategies

The instructional strategies will focus on constructionist learning approach. These strategies will be diverse in line with the course contents. Therefore, these strategies will include but not limited to demonstration, cooperative learning, collaborative learning, teacher and student-led discussion, individual and group presentations, reflective practices and classroom activities.

Assessment and Examinations

The students will be assessed according to the following criteria.

Examination	Marks Distribution
Sessional work	25 %
Mid Semester	35%
Final Semester	40%

Suggested Readings

Bartz, A.E. (1999). Basic statistical concepts (4th ed.). New Jersy: Printice-Hall

Bluman, A. G. (2009). Elementary statistics: A step by step approach. Boston: McGraw-Hill.

Garrett, H. E. (1995).*Statistics in psychology and education.* London: Longman

Heiman, G. W. (2011). *Basic statistics for the behavioural sciences.* USA: Wadsworth

Howel, D. C. (2013).*Statistics for psychology.* USA: Wadsworth

Howel, D. C. (2011).*Fundamentals of statistics for behavioural sciences.* USA: Wadsworth

Kutz, A. K. (1980). *Statistical method in education and psychology.* New Delhi, Narosa publishing House.

Larson, R., & Farber, B. (2012).*Elementary statistics: Picturing the world.* Delhi: Prentice Hall.

Mangal, S.K. (2002).*Statistics in psychology and education.* New Delhi: Printice-Hall of India Pvt. Ltd.

Weiss, N.A. (2012). *Elementary statistics.* Boston: Addison-Wesley

PROFESSIONALISM IN TEACHING

Course Code: EDBE321 **Credit Hours: 3**

Course Description:

Learning to teach is a continuous process which involves pre-service teacher preparation and mentoring for beginning teachers and professional development. The purpose of this course is to assist student teachers to grasp the theory of professionalism and implement the same into practice needed for teaching profession. Teaching is the profession that is on the edge of a great transformation all over the world. At the same time the expectations about teacher's performance, roles, responsibilities, enthusiasm and commitment are increasing. Enhancing professionalism among teachers is an area of global concern. Developing cognitive skills is not the only criteria for effective performance, we also need to develop the affective skills of student teachers so that they can demonstrate the dispositions required of them mentioned in the National Standards for Teachers in Pakistan. This course will broaden the horizon of student teachers in determining the relationship of theory and practice of professionalism in respect of commitment and dedication for teaching through depicting dispositions required for teaching profession.

Learning Outcomes

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

1. Explain the concept and characteristics of profession and professional
2. Describe and adopt the characteristics professionals and effective teaching
3. Define and discuss the term professionalization and its process and establish their awareness about the professionalization of teaching profession
4. Recognize the requirements and characteristics of professionalism and depict their commitment and enthusiasm towards teaching profession
5. Adhere to the professional code of conduct and professional values and show their commitment to professional renewal
6. Depict their commitment towards teaching through practicing professional dispositions for teachers
7. Demonstrate and practice Islamic principles of professionalism regarding teacher's accountability
8. Identify the difficulties that beginners' teachers face and recognize the role of mentor in overcoming these difficulties
9. Develop awareness about the attributes of professional teachers as reflective practitioner, transformative, enquiring, committed and a role model
10. Recognize their professional distinctiveness and develop skills for carrier development to match their expertise with changing teaching learning scenarios
11. Appraise and align their knowledge, skills and attitudes with Suggested Readings to national professional standards for teachers in Pakistan
12. Write reflective journals and become effective professional teacher of 21st century

Contents

1. Introduction of Profession and Concept of Teaching

1.1. Concept of Profession and Professionals
1.2. Characteristics of Profession and Professionals
1.3. Assumption about Teaching
1.4. Teaching as a Profession
1.5. Characteristics of Effective Teaching

2. **Professionalization Process and Professionalism**
   2.1. Concept and Process of Professionalization
   2.2. Professionalization of Teaching Profession
   2.3. Definition and Characteristics of Professionalism
   2.4. Subject and Pedagogical Knowledge
   2.5. Importance of Commitment and Devotion in Teaching
3. **Professionalism in Teaching: Theory to Practice**
   3.1. Code of Professional Conduct and Values
   3.2. Commitment to Professional Renewal
   3.3. Professional Dispositions for Teachers
   3.4. Islamic Principles of Professionalism
   3.5. Problems faced by Beginner Teachers: Highlighting Role of Mentoring
4. **Attributes of Professional Teacher As A/ An:**
   4.1. Reflective Practitioner
   4.2. Transformative Teacher
   4.3. Enquiring Teacher
   4.4. Committed Teacher
   4.5. Role Model
5. **Changing Role of the Teacher: Beyond Classroom**
   5.1. Teacher's Professional Identity
   5.2. Career Development
   5.3. Writing Reflective Journals
   5.4. Write A Review of National Professional Standards for Teachers in Pakistan

Teaching-learning Strategies

The instructional strategies will focus on constructionist learning approach. These strategies will be diverse in line with the course contents. Therefore, these strategies will include but not limited to demonstration, cooperative learning, collaborative learning, teacher and student-led discussion, individual and group presentations, reflective practices and classroom activities.

Assessment and Examinations

The students will be assessed according to the following criteria

Examination	Marks Distribution
Sessional Work	25%
Mid-Semester	35%
Final Semester	40%

Suggested Readings

Beckett, D.,& Hager, P. (2002). *Life, work and learning: Practice in post modernity.* London: Routledge.

Bolton, G. (2005). *Reflective practice: Writing and professional development.* Sage: London.

Campbell, E. (2003).*The ethical teacher.* Buckingham: Open University.

Day, C., Kington, A., Stobart, G., Sammons, P. &Gu, Q. (2007).*Teachers matter.*Open University Press.

Edwards, R.,& Usher, R. (2002).*Globalisation and pedagogy: Space, place and identity.* London: Routledge.

Freidson, E. (2001).*Professionalism: The third logic*. London: Polity.

Goodson, I. F. (2003).*Professional knowledge, professional lives: Studies in education and change*. Maidenhead: Open University Press.

Mahony, P.,& Hextall, I. (2000).*Reconstructing teaching: Standards, performance and accountability*. London: Routledge Falmer.

Main, N. (Ed.). (2000).*Professionalism, boundaries and the workplace*. London: Routledge.

Walker, M. (Ed.). (2001).*Re-constructing professionalism in university teaching: Teachers and learners in action*. Buckingham: The Society for Research into Higher Education & Open University Press.

National Professional Standards for Teachers. Retrieved fromhttp://www.ascd.org/publications/books/100047/chapters/Professionalism,_Teacher Efficacy,_and_Standards-Based_Education.aspx

Communication and Life Skills

(Scouting, community service and Civil defence)

Course Code: EDBE322 **Credit Hours: 3**

Course Description

The course aims at developing a wide range of skills:

- Language Development, which involves grammar and extensive vocabulary learning.
- Speaking skill, which includes pronunciation, fluency and accuracy.
- Writing skills, which have a specific focus on literacy and short essays, memoranda, notes.
- Reading that involves study of instructional texts of topical relevance.
- Listening that includes comprehension of gist and detailed information.
- Communication skills, which covers communication situations.
- For effective Scouting tasks, community service and Civil defence

Learning Outcomes

The main Learning Outcomes of the syllabus are to:

1. Provide material for the students to learn pronunciation of the English sounds, to learn to read, write, and to know the fundamentals of English grammar and vocabulary.
2. Develop the students' speaking skills to enable them to use general, social and professional language.
3. Develop the students' general capacity to a level that enables them to use English in their professional and academic environment.
4. Develop the students' reading skills to enable them to skim an adapted text for main idea, to scan an adapted text for specific information, to interpret an adapted text for inferences.
5. Develop the students' writing skills to enable them to respond to input applying information to a specified task, to elicit, to select, to summarize information in essays.
6. Develop the students' listening skills to enable them to understand and apply specific information from the input (IELTS)
7. Communicating the gist of simple reading passages, classroom participation, progress and motivation; Listening Skills
8. Execute Scouting tasks effectively; perform community service and Civil defence activities with full vigor.

Contents

1-Reading Skills:

Skimming, scanning, detailed reading, guessing unknown words from context, understanding text organization, recognizing argument and counter-argument; summarizing and note-taking.

2-Writing Skills:

2.1-Essay content and structure (patterns of organization, paragraphing, discussion – argument/counter-argument, advantages and disadvantages, topic sentence and supporting ideas, coherence and cohesion, punctuation).

2.2-Functions (generalization, definitions, exemplification, classification, comparison and contrast, cause and effect, process and procedure, interpretation of data).

2.3-Style (passive constructions, avoiding verbosity)

2.4Punctuation

3-Listening Skills:

3.1 General comprehension (listening for gist, listening for detailed information, evaluating the importance of information).

3.2 Lectures (identifying the topic and main themes, identifying relationships among major ideas, comprehending key information).

4-Speaking Skills:

4.1 Seminar skills (agreeing and disagreeing, clarifying, questioning, concluding).

4.2 Presentation skills (introductions and stating the purpose, signposting, highlighting key points, summaries, conclusions).

5-Oral Communication:

5.1 Identify other people's communication styles and needs.

5.2 Recognize body language and what it might mean.

5.3 Grow relationships through more powerful communication.

5.4 Prepare better for group communication and be able to demonstrate what clear communication looks like.

5.5 Communicate more effectively in person, using the phone, and using email.

5.6 Assertively deal with 'political' communication and conflict communication.

6-An Ideal, a Movement, an Organization

1 Essential Characteristics of Scouting
- 1.1 Definition (*What It Is*)
- 1.2 Purpose (*Why It Does Exist*) and Principles (*Valueson Which It Is Based*)
- 1.3 Educational Method

2 A Highly Intuitive Educational Movement
- 2.1 More a Network Movement than an Organization
- 2.2 The Educational Impact and the "Magic" of Scouting

3- How the Organization Works: Town, Country, and World
- 3.1 The Local Group and the National Association
- 3.2 When a Country Has More Than One Association
- 3.3 World Organization(s) and Global Belonging
- 3.4 The Gender Approach: WOSM and WAGGGS, Separated . . . Forever?

4 - Recognition and Belonging
- 4.1 Relevance of the Recognition Policy
- 4.2 Differentiating between What Is and Is Not Scouting
- 4.3 Religion, Culture, Tradition: Motives for Split in Scouting

7-Citizenship Education and Scouting

7.1- What Does to Educate Citizens Mean?

7.2- The Assumptions of "Citizenship" in Scouting

7.3- Values to Perpetuate Society versus Values to Transform Society

7.4-Consistency and Incoherencies in a Global Movement

7.5- Scouting in the United States: Controversies and Culture War

7.6- Spiritual Dimension and Dependence from Denominations

7.7- Social Values, Cultural Change, and Critical Thinking

7.8-Local Rooting, National Belonging, and Global Commitment

7.9- Peace Culture, Human Rights, and Community Development

7.10 Legitimizing International Institutions

8-Training Scenarios for Civil Defence:

8.1 Flooding

8.2 Earthquakes

8.3 Landslides and mudslides

8.4 Severe weather conditions

8.5 Structural collapse

8.6 Chemical emergencies

8.7 Oil, gas, and industrial emergencies

8.8 Nuclear disaster

8.9 Forest fires

8.10 Structural fires

8.11 Vehicle accidents

8.12 Power, Water, Fuel, Gas disruptions

8.13 Terrorist attacks

8.14 Civil disorder

9-Community services

9.1 Community services defined

9.2 Community services types

9.3 Community services projects

Teaching-learning Strategies

The instructional strategies will focus on constructionist learning approach. These strategies will be diverse in line with the course contents. Therefore, these strategies will include but not limited to demonstration, cooperative learning, collaborative learning, teacher and student-led discussion, individual and group presentations, reflective practices and classroom activities.

Assessment and Examinations

The students will be assessed according to the following criteria.

Examination	Marks
Sessional Work	25%
Mid-Semester	35%
Final Semester	40%

Suggested Readings

Hasson, G. (2012). *Brilliant communication skills.* Great Britain: Pearson Education.

Collins, P. (2009). *Speak with power and confidence.* New York: Sterling.

Kroehnert, G. (2010). *Basic presentation skills.* Sidney: McGraw Hill.

Rutherford, A. J. (2007). *Basic communication skills for technology* (2nd ed.). Delhi: Pearson Education.

Seely, J. (2002).*Writing reports.* New York: Oxford University Press.

Prasad, H. M. (2001). *How to prepare for group discussion and interview.* New Delhi: Tata McGraw-Hill Publishing Company Limited.

Guffey, M. E. (2000).*Essentials of business writing.* Ohio: South Western College.

Service projects for kids. (2018) https://kidworldcitizen.org/35-service-projects-for-kids/retrieved fromhttp://www.kidactivities.net/community-service-ideas-for-kids-all-ages/

Vallory, F. (2012). *World scouting: Educating for global citizenship.* New York, ALGRAVE MACMILLAN

McEnancy, L.(2000). *Civil defence begins at home: Militarization meets everyday life in the fifties.* UK: Princeton University Press

ENVIRONMENTAL EDUCATION

Course Code: EDSC326 **Credit Hours: 3**

Course Description

The purpose of this course is to provide in-depth knowledge about environment and skills to preserve the environment. Prospective teachers will develop environmental literacy and positive attitude towards environment so that they can inculcate them into their students in future. The contents will cover basic concepts and skills in this perspective.

Learning Outcomes

After completing the course the students will be able to:

1. Understand the significance of Geography, Health, and Environment in education
2. Have awareness of the diseases and remedies
3. Critique the environmental problems affecting health

Contents

1. Understanding Geography, Health and Environment

1.1 Explaining Geography, health, and environment
1.2 Significance of geography as a subject
1.3 Importance of students' health
1.4 Ecology and different Eco systems
1.5 Inter-defence and inter-relationship of living organisms and environment

2. Raising Awareness

2.1 The effects of wars and natural disaster on geography
2.2 Importance of raising health awareness
2.3 Method of raising health awareness
2.4 Method of protection of environment
2.5 Importance of clean environment
2.6 Methods for the protection of geography boundary

3. Environment Problems

3.1 Problems due to increase and unwise use of fertilizers and insecticides
3.2 Soil losses and its degradation
3.3 Soil conservation
3.4 Water logging and salinity
3.5 Vegetation
3.6 Unplanned Industrialization
3.7 Treatment plants for chemical effluents
3.8 Air pollution by smoke and chemical exhaust

4. Preservation of World life

4.1 Life span and their use
4.2 Need for preservation

5. Diseases and Preventive Measures

5.1 Types of disease and their causes
5.2 The spread of disease and preventive measures
5.3 Role of psycho-religious therapy in treating diseases:
5.3.1 Physical
5.3.2 Mental
5.3. 3 Spiritual

6. Role of Education in Environmental Preservation

Teaching-learning Strategies

The instructional strategies will focus on constructionist learning approach. These strategies will be diverse in line with the course contents. Therefore, these strategies will include but not limited to demonstration, cooperative learning, collaborative learning, teacher and student-led discussion, individual and group presentations, reflective practices and classroom activities.

Assessment and Examinations

The students will be assessed according to the following criteria

Examination	Marks
Sessional work	25%
Mid Semester	35%
Final Semester	40%

Suggested Readings

Aldrich, M. B., &Kwong, J. (1997). *Environmental education.* London: IEA Education and Training Unit.

Azeiteiro, U. (2008). *Science and environmental education: Towards the integration of science education, experimental science activities and environmental education.* Frankfurt am Main: Peter Lang

Food and Agriculture Organization of the United Nations. (2005). *The state of food insecurity in the world, 2005: Eradicating world hunger - key to achieving the Millennium Development Goals.* Rome, Italy: Author.

Gazdar, M. N. (1987). *Natural resources development and environmental management in Pakistan.* Kuala Lumpur: Open Press.

Harris, F. (2012). *Global environmental issues.* Chichester, West Sussex: Wiley-Blackwell.

Johnson, E. A., & Mappin, M. (2005). *Environmental education and advocacy: Changing perspectives of ecology and education.* Cambridge: Cambridge University Press

Palmer J., & Neal, P. (1994). *The handbook of environmental education.* London: Routledge.

Palmer J. (1998). *Environmental education in the 21st century: Theory, practice, progress and promise.* London: Routledge.

Sampson, R. N., Hair, D., & American Forestry Association.(1990).*Natural resources for the 21st century*. Washington, D.C: Island Press [in cooperation with] American Forestry Association.

Samuel, K., & Sundar, I. (2007). *Environmental education: Curriculum [i.e. curriculum] and teaching methods*. New Delhi: Sarup & Sons.

Saylan, C., & Blumstein, D. T. (2011). *The failure of environmental education (and how we can fix it)*. Berkeley: University of California Press.

Stevenson, R. (2013). *International handbook of research on environmental education*. New York: Routledge

Tomar, A. (2007). *Environmental education*. Delhi: Kalpaz Publications

Wilke, R. J. (1993). *Environmental education teacher resource handbook: A practical guide for K-12 environmental education*. Millwood, N.Y: Kraus International Publications.

Whitmore, F. C., Williams, M. E., & International Centennial Symposium of the United States Geological Survey. (1982).*Resources for the twenty-first century: Proceedings*. Washington/D.C.

(III) Area of Specialization Courses in English
Phonetics and Phonology

Course Code: EDBEL351 **Credit Hours: 3**

Course Description

The course aims to build on the background knowledge of phonological description and theory in order to explain the theories and the principles regulating the use of sounds in spoken language; train students in the skill of transcribing spoken language – particularly English; and examine cross-linguistic similarities and variation in sounds – particularly English and Urdu.

The course is essential to build necessary language skills in learners which may help them in performing their professional duties in future as the knowledge of sounds is thought primary to teach a foreign language.

Learning Outcomes of the Course:

On successfully completing this course the students will be able to:

1. Use IPA symbols to describe the sounds of language in both broad and narrow transcriptions
2. Explain some of the more frequent phonological processes which occur in connected speech
3. Explain supra-segmental and sound features
4. Examine cross-linguistic similarities and variations
5. To apply knowledge of sounds to teach English pronunciation

Contents:

1. The Description of Speech

1.1 What are the main features of pronunciation?
1.2 The Physiology of pronunciation
1.3 The articulation of phonemes
1.4 IPA chart of English
1.5 Phonemic transcription
1.6 Phonetics and phonology

2 Vowels

2.1 The characteristics of the 'pure' vowel sounds
2.2 The characteristics of diphthongs
2.3 Raising awareness of vowel sounds

3 Consonants

3.1 The characteristics of the consonant sounds
3.2 Raising awareness of consonant sounds

4 Word and sentence stress

4.1 What is word stress?
4.2 Rules of word stress

4.3 Levels of stress
4.4 Sentences: Stress timing and syllable timing
4.5 Sentence stress and tonic syllables
4.6 Sentence stress and weak forms
4.7 Raising awareness of word and sentence stress

5 Connected Speech

5.1 Assimilation
5.2 Elision
5.3 Linking and intrusion
5.4 Juncture
5.5 Contractions

6 Teaching pronunciation

6.1 Why teach pronunciation?
6.2 Problems and approaches in pronunciation teaching
6.3 What pronunciation model to teach
6.4 Techniques and activities
6.5 Sample lessons

Assessment and Examinations

The students will be assessed according to the following criteria

Examination	**Marks**
Sessional work	25%
Mid Semester	35%
Final Semester	40%

Suggested Readings

Ashby, M. & Maidment, J. (2005) *Introducing Phonetic Science.*Cambridge: CUP.

Carr, P. (1999). *English Phonetics and Phonology.* Oxford: Blackwell.

Gimson, A.C. (1962). *An Introduction to the Pronunciation of English.* London: Edward Arnold.

Kelly, G. (2000). *How to Teach Pronunciation.* Essex: Longman

Kuiper, K. & Allan, W.S. (2004).*An Introduction to English Language: word, sound andsentence*.Basingstoke: Palgrave Macmillan.

McCarthy, P. (2009) *The Teaching of Pronunciation.*_____: CUP.

O' Connor, J.D. (2013) *A Course of English Pronunciation.*_____: The B.B.C.

Odden, D. (2005).*Introducing Phonology.*NewYork: Cambridge University Press.

Roach, P. (1996). *English Phonetics and Phonology.*_____:Cambridge University Press.

Foreign/Second Language Acquisition and Instructional Technology

Course Code: EDBEL352 **Credit Hours: 3**

Course Description

The field of Second Language Acquisition (SLA) investigates how people attain proficiency in language, which is not their mother tongue. Bilingualism is also a sub discipline of this field. English language teachers teaching in bilingual settings must have theoretical background in SLA, so that they may discover links between acquisition theories and different pedagogic techniques used for teaching second language. They will also understand the relationships between linguistics, psychology and first language acquisition, which are source fields for the study of SLA.

The course also aims at demonstrating applications of both traditional and electronic materials and equipment to the area of teaching English as a foreign language. Modern pedagogy gives much emphasis on the use of instructional technology for effective communication of knowledge at all levels of education. Under the influence of recent popularity of Communicative Language Teaching and the expanding use of computers and multimedia in education, foreign language experts and teachers attach tremendous importance to instructional technology.

Learning Outcomes of the course:

On successfully completing this course, the learners will be able to know:

1. Major developments in SLA research
2. Understand developmental patterns
3. Explain external and internal factors of SLA
4. Explain individual differences in SLA
5. Plan for using technology in their lessons
6. Select and arrange instructional technology in consonance with their plan and evaluate their lessons effectively
7. Know emerging and current trends in Instructional Technology.

Contents:

1. **Introduction**

   Second Language Acquisition as a field of study
2. **Learning vocabulary and meaning**

   2.1 Word frequency

   2.2 Knowledge of words

   2.3 Types of meaning

   2.4 Strategies for understanding and learning vocabulary

3. **Acquiring pronunciation**

   3.1 Phonemes and SLA

   3.2 Learning syllable structure

   3.3 Ideas about phonology learning

4 **Strategies for communication and learning**

   4.1 Communication strategies

   4.2 Language learning strategies

5 **Individual differences in L_2 users and L_2 learners**

   5.1 Motivation

   5.2 Attitudes

   5.3 Aptitude

   5.4 Age

   5.5 Personality traits

6 **The L_2 user and the native speaker**

   6.1 L_2 user vs native speaker (NS)

   6.2 Code switching by L_2 users

   6.3 English as lingua franca (ELF)

7 **Technology in the classroom**

   7.1 Needs assessment – matching needs and technology resources

   7.2 Planning instruction - designing appropriate integration strategies.

   7.3 Logistics - preparing the classroom environment

   7.4 Preparing you and your students to use resources

   7.5 Evaluation and revisiting integration strategies

8 **Technology in Foreign language education: CALL**

   8.1 The internet

   8.2 Computer software

   8.3 Video

   8.4 Useful web sites for foreign language instruction

   8.5 Using CALL for language teaching

Assessment and Examinations

The students will be assessed according to the following criteria

Examination	**Marks**
Sessional work	25%
Mid Semester	35%
Final Semester	40%

Suggested Readings

Cook, V. (2011) *Second Language Learning and Language teaching.* New York: Routledge.

_____, D. (2001) *Technology for Teaching.* Needham Heights: Allyn and Bacon.

Edwards, J. &Roblyer, M. (2000) *Integrating Educational Technology into Teaching.(2nd ed).* Upper Saddle River, NJ: Merrill.

Hodder-Education (4th ed).

Krashen, S. (1981).*Second Language Acquisition and Second Language Learning.*

Oxford: Pergamon.

Norton, P., & Spraghe, White, L. (2003) *Second Language Acquisition and Universal Grammar.* Amsterdam/ Philadelphia: Benjamins.

Syntax and Teaching of Grammar

Course Code: EDBEL353 **Credit Hours: 3**

Course Description

The course provides a bridge between generative approaches to syntactic theory and more traditional descriptions. This course will provide students a toolkit for analysis in Morphology, Discourse Analysis, Pragmatics, Stylistics, Sociolinguistics; Computers in ELT & Linguistics and Research in English language structure and teaching grammar at school level. This course is extremely important for understanding the sentence meaning based on its parts.Keeping in mind the recent revision of English textbooks in Pakistan, this course becomes inevitable for future English teachers of secondary classes in Public and Private sectors.

Objective of the Course:

On successfully completing this course, students will be able to:

1. Have a sound analytical knowledge of key areas of English grammar as an object of intellectual inquiry, rather than as a set of rules to be learnt
2. Use analytical tools to sort out grammatical problems for themselves
3. Describe the Syntax of English Sentence.

0. Descriptive Syntax

1.1 Scope

1.2 Relationship between DS and ELT

1. Sentence Structure: Constituents

2.1 Structure

2.2 'Phrase' and 'constituent'

2. Sentence Structure: Functions

3.1 Subject and predicate

3.2 Phrase and Verb Phrase

3.3 Dependency and function

3. Sentence Structure: Categories

4.1 Nouns

4.2 Lexical and phrasal categories (Noun and Noun Phrase)

4.3 Adjectives and adverbs

4.4 Adjective phrases and Adverb phrases

4.5 Prepositions and Prepositional phrases

4.6 Co-ordinate Phrase

5 **Internal Structure of Noun phrases**

- 5.1 Determiners
- 5.2 Pre-determiners
- 5.3 Pre-modifiers in NOM
- 5.4 Post modifiers
- 5.5 Modification of pronouns

6 **The Verb Phrase: Sub-categorization**

- 6.1 The complements of the Verb Group
- 6.2 MonotransitiveVgrps
- 6.3 Intransitive Vgrps
- 6.4 DitranstiveVgrps
- 6.5 Intensive Vgrps
- 6.6 Complex transitive Vgrps
- 6.7 Prepositional Vgrps

6 **(a) Adverbials**

1. Adjunct adverbials in the Verb Phrase
2. Levels of Verb Phrase
3. The mobility of adverbials
4. Phrasal verbs
5. Ellipsis
6. Sentence adverbials

(b) The Complete Finite verb Phrase

1. The simple finite Vgrp
2. Auxiliary verbs in the complex Vgrp
3. Negatives and auxiliary do
4. Fronting the C in questions
5. More on have and be

7 **Sentences within Sentences**

1 Complementisers: *that* and *whether*
2 The functions of that-and whether-clauses
3 Adverbial clauses
4 Wh-Clauses
5 Wh-questions
6 Subordinate Wh-clauses
7 Subordinate Wh-interrogative clauses
8 Relative clauses

8. Teaching phrase and sentence structures

Teaching-learning Strategies

The instructional strategies will focus on constructionist learning approach. These strategies will be diverse in line with the course contents. Therefore, these strategies will include but not limited to demonstration, cooperative learning, collaborative learning, teacher and student-led discussion, individual and group presentations, reflective practices and classroom activities.

Assessment and Examinations

The students will be assessed according to the following criteria

Examination	**Marks**
Sessional work	25%
Mid Semester	35%
Final Semester	40%

Suggested Readings

Aarts, B. (2008). *English syntax and argumentation (3rd ed).* Basingstoke: Palgrave MacMillan.

Jacobs, R. A (1995).*English Syntax: A Grammar for English Language Professionals.* ____Oxford University Press,

Leech, G., Deuchar, M., & Hoogenraad, R. (2006). *English Grammar for Today: A New Introduction*. Basingstoke: The Macmillan Press.

Kroeger, P.R. (2005). *Analyzing Grammar: An Introduction*, Cambridge: CUP.

Quirk, R., Greenbaum, S., Leech, G., & Svartvik, J. (1985).*A comprehensive grammar of the English language*. New York: Longman.

(III) Area of Specialization Courses in Fine Arts
TEACHING OFFINE ARTS

Course code: EDBEE351 **Credit Hours: 3**

Course Description

This course intends to highlight the role of emerging technologies which are increasingly pushing the field of fine arts in a new dimension. In this course, the prospective teachers will explore how the latest trends in the use of technology affect student learning and engagement. They will also learn how the innovative learning tools work for fine arts. The course will also provide opportunities with the prospective teachers to comprehend English language skills. As the nature of this course is more towards the symbolic art than the theoretically rich text, the prospective teachers will experience the visual, symbolic and figurative presentation of art. Additionally, the prospective teachers will compare and contrast various tools used in drawing, crafting and presenting a piece of art. Thus, the course is a combination of technology and instruction for Fine Arts.

Course Outcomes

After completion of the course, the prospective teachers will be able to:

11. Understand the role of technology in the distribution of content, the facilitation of collaborative activities, and the assessment of students
12. Identify the existing and emerging technologies and their value in fine arts' curriculum development
13. Utilize free and open resources to more deeply engage students in their learning
14. Design various learning activities that utilize social learning tools
15. Use tools and materials in art more skilfully
16. Construct lesson plan using multimedia
17. Conduct evaluation to ensure the learning of students in Fine Arts

Contents

Unit 1: Introduction

1.1 Introduction to Fine Arts and its types
1.2 Meaning and definition
1.3 Scope of Fine Arts
1.4 Importance of Arts
1.5 Aims and Learning Outcomes of Arts Teaching
1.6 Review of the unit

Unit 2: Approaches to Fine Arts Teaching

2.1 Receptive Approach
2.2 Creative Approach
2.3 Blended Approach (Receptive + Creative)

2.4 Expressive Approach
2.5 Disciplined Approach
2.6 Review of the unit

Unit 3: Social Technologies in Fine Arts

3.1 Introduction to social technologies
3.2 Digital media
3.3 Print media
3.4 Online social technology media (Social Networks, Wikipedia, Blogs)
3.5 Software relevant to Fine Arts
3.6 Positive and Negative Impacts of Technologies on Fine Arts
3.7 Review of the unit

Unit 4: Instructional Material in Teaching Fine Arts

4.1 Introduction to instructional material
4.2 Need of instructional material
4.3 Types of instructional material (text books, guide books, Suggested Readings materials, materials and accessories for painting and other art)
4.4 Educational trip to different museums
4.5 Review of the unit

Unit 5: Lesson Planning for Fine Arts

5.1 Concept of lesson planning
5.2 Why lesson planning
5.3 Element of lesson planning
5.4 Procedure to prepare and plan a lesson
5.5 Use of social technologies for lesson planning
5.6 Review of the unit

Unit 6: Evaluation in Fine Arts

6.1 Concept of evaluation

6.2 Purposes of evaluation

6.3 Tools and techniques of evaluation

6.4 Types of evaluation

6.5 Practical and theoretical modes of evaluation in Fine Arts

6.6 Review of the unit

7 Teaching-learning Strategies

8 The instructional strategies will focus on constructionist learning approach. These strategies will be diverse in line with the course contents. Therefore, these strategies will include but not limited to demonstration, cooperative learning, collaborative learning, teacher and student-led discussion, individual and group presentations, reflective practices and classroom activities.

Assessment and Examinations

Examination	Marks
Mid-Semester	35%
Sessional Work	25%
Final Semester	40%

Suggested Readings

Atkinson, D. (2002). *Art in education: Identity and practice.* New York: Kluwer Academic Publisher.

Barton, G. (ed.). (2014). *Literacy in the arts: Retheorising learning and teaching.* New York, NY: Springer.

Gagne, R. M. (2013). *Instructional technology: foundations*. Mahwah, NJ: Routledge.

Mangal, S. K., & Mangal, U. (2009).*Essentials of Educational Technology*: Prentice-Hall of India Pvt. Limited.

Naidus, B. (2009). *Arts for change: Teaching outside the frame*: Oakland CA: NYU Press.

Pierre, S. D. L.,& Zimmerman, E. (1997).*Research methods and methodologies for art education*: Reston, VA: National Art Education Association.

Rather, A. R (2004). *Essentials of instructional technology*: New Delhi: Discovery Publishing House.

INSTRUCTIONAL TECHNOLOGY FORFINE ARTS

Course code: EDBEE352 **Credit Hours: 3**

Course Description

This course intends to highlight the role of emerging technologies which are increasingly pushing the field of fine arts in a new dimension. In this course, the prospective teachers will explore how the latest trends in the use of technology affect student learning and engagement. They will also learn how the innovative learning tools work for fine arts. The course will also provide opportunities with the prospective teachers to comprehend English language skills. As the nature of this course is more towards the symbolic art than the theoretically rich text, the prospective teachers will experience the visual, symbolic and figurative presentation of art. Additionally, the prospective teachers will compare and contrast various tools used in drawing, crafting and presenting a piece of art. Thus, the course is a combination of technology and instruction for Fine Arts.

Course Outcomes

After completion of the course, the prospective teachers will be able to:

1. Understand the role of technology in the distribution of content, the facilitation of collaborative activities, and the assessment of students
2. Identify the existing and emerging technologies and their value in fine arts' curriculum development
3. Utilize free and open resources to more deeply engage students in their learning
4. Design various learning activities that utilize social learning tools
5. Use tools and materials in art more skilfully
6. Construct lesson plan using multimedia
7. Conduct evaluation to ensure the learning of students in Fine Arts

Contents

Unit 1: Introduction

1.7 Introduction to Fine Arts and its types
1.8 Meaning and definition
1.9 Scope of Fine Arts
1.10 Importance of Arts
1.11 Aims and Learning Outcomes of Arts Teaching
1.12 Review of the unit

Unit 2: Approaches to Fine Arts Teaching

2.7 Receptive Approach

2.8 Creative Approach
2.9 Blended Approach (Receptive + Creative)
2.10 Expressive Approach
2.11 Disciplined Approach
2.12 Review of the unit

Unit 3: Social Technologies in Fine Arts

3.8 Introduction to social technologies
3.9 Digital media
3.10 Print media
3.11 Online social technology media (Social Networks, Wikipedia, Blogs)
3.12 Software relevant to Fine Arts
3.13 Positive and Negative Impacts of Technologies on Fine Arts
3.14 Review of the unit

Unit 4: Instructional Material in Teaching Fine Arts

4.6 Introduction to instructional material
4.7 Need of instructional material
4.8 Types of instructional material (text books, guide books, Suggested Readings materials, materials and accessories for painting and other art)
4.9 Educational trip to different museums
4.10 Review of the unit

Unit 5: Lesson Planning for Fine Arts

5.7 Concept of lesson planning
5.8 Why lesson planning
5.9 Element of lesson planning
5.10 Procedure to prepare and plan a lesson
5.11 Use of social technologies for lesson planning
5.12 Review of the unit

Unit 6: Evaluation in Fine Arts

8.1 Concept of evaluation
8.2 Purposes of evaluation
8.3 Tools and techniques of evaluation
8.4 Types of evaluation
8.5 Practical and theoretical modes of evaluation in Fine Arts
8.6 Review of the unit

Teaching-learning Strategies

The instructional strategies will focus on constructionist learning approach. These strategies will be diverse in line with the course contents. Therefore, these strategies will include but not limited to demonstration, cooperative learning, collaborative learning, teacher and student-led discussion, individual and group presentations, reflective practices and classroom activities.

Assessment and Examinations

Examination	Marks
Mid-Semester	35%
Sessional Work	25%
Final Semester	40%

Suggested Readings

Atkinson, D. (2002). *Art in education: Identity and practice.* New York: Kluwer Academic Publisher.

Barton, G. (ed.). (2014). *Literacy in the arts: Retheorising learning and teaching.* New York, NY: Springer.

Gagne, R. M. (2013). *Instructional technology: foundations.* Mahwah, NJ: Routledge.

Mangal, S. K., & Mangal, U. (2009).*Essentials of Educational Technology*: Prentice-Hall of India Pvt. Limited.

Naidus, B. (2009). *Arts for change: Teaching outside the frame*: Oakland CA: NYU Press.

Pierre, S. D. L., & Zimmerman, E. (1997). *Research methods and methodologies for art education*: Reston, VA: National Art Education Association.

Rather, A. R (2004). *Essentials of instructional technology*: New Dehli: Discovery Publishing House.

TRENDS AND CONTEMPORARY ISSUES IN FINE ARTS

Course code: EDBEE353 **Credit Hours: 3**

Course Description

This course is designed to have a deeper understanding on new developments, challenges and needs in the field of art. As the Information Communication Technologies (ICT) have revolutionized every field of life, fine arts has not left behind from other fields and have got considerable attention in sustaining its worth and identity. The need of this course for prospective teachers will not only prepare them to have a sound knowledge of emerging tendencies, issues and challenges in fine arts but also put them on the path of lifelong learning for it. The importance of this course can also be understood realizing the fact that the subject of fine arts has directly or indirectly become an integral part of life. Thus, as life is not static, the presentation of art work is always dynamic and demanding new ideas and creative thinking to see life and its aspects in different perspectives. This course caters the needs of prospective teachers' preparation by incorporating emerging tendencies, modes, challenges, and issues related to fine arts. This course will provide the prospective teachers with opportunities to enhance their professional development in art having deeper understanding on arts, its changings phases, its impacts on life and its needs in training the young children.

Course Outcomes

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

1. Comprehend the changing needs of Arts Education
2. Recognize the factors influencing the curriculum of Fine Arts
3. Understand the need of curriculum revision
4. Enable to integrate Information Communication Technology (ICT) with the curriculum of Fine Arts
5. Take initiatives in transforming the teaching methods in order to appropriately address the emerging challenges in the delivery of Fine Arts' contents
6. Cultivate an aesthetic sense in their students
7. Reflect upon their practices as an artist to be competent in their field
8. Have a futuristic approach in Fine Arts' teaching

Contents

Unit 1: Contextual Understanding of Culture and its role in Media Literacy

1.13 How are cultures different from each other?

1.14 What is meant by media literacy?

1.15 How does understanding of culture influence fine arts?

1.16 Role of culture in 21st Fine Arts

1.17 Review of the Unit

Unit 2: Curriculum Development

2.1 Influence of Changing ICT on curriculum of Fine Arts

2.2 Initiatives to bridge the difference between ICT and Fine Arts

Unit 3: Emerging Role of ICT in Fine Arts

2.1 Role of Information Communication Technology (ICT)

2.2 Understanding Visual Literacy

2.3 Relationship of ICT and Visual Literacy

2.4 Review of this unit

Unit 4: Issues in Instruction and Assessment of Fine Arts

3.1 Safety Issues

3.2 Aligning Instruction with Outcomes

3.3 Learning Styles

3.4 Assessment (Formative assessment, Summative Assessment, content of assessment, reliability, validity)

3.5 Tools of Assessment

3.6 Review of this unit

4 **Teaching-learning Strategies**

5 The instructional strategies will focus on constructionist learning approach. These strategies will be diverse in line with the course contents. Therefore, these strategies will include but not limited to demonstration, cooperative learning, collaborative learning, teacher and student-led discussion, individual and group presentations, reflective practices and classroom activities.

Assessment and Examinations

Examination	Marks
Mid-Semester	35%
Sessional Work	25%
Final Semester	40%

Suggested Readings

Alberta Education. (2011). *Framework for student learning: Competencies for engaged thinkers and ethical citizens with an entrepreneurial spirit.* Retrieved from http://education.alberta.ca/department/ipr/curriculum.aspx

Azfar, A. (2018). *The Culture and Civilization of Pakistan.* Islamabad: Oxford University Press.

Calgary Board of Education (2012). *Arts-Centred Learning Program Integrity Framework* Retrieved from: http://www.cbe.ab.ca/programs/programoptions/Documents/Program-Integrity-Framework-Arts-Centred-Learning.pdf

Callahan, K. L. (1999). *Current Trends in Rock Art Theory.* Retrieved from http://www.rupestreweb.info/theory.html

Hashmi, S., Ata-Ullah, N., & Museum, A. S. (2009).*Hanging Fire: Contemporary Art from Pakistan.* New York: Asia Society Museum.

Hashmi, S., & Khosla, M. (2015).*The Eye Still Seeks: Pakistani Contemporary Art.* India: Penguin Books Limited.

Kauppinen, H., &Diket, R.(1995).*Trends in Art Education from Diverse Cultures*: Washington DC: National Art Education Assoc.

Watt, T. (2013). How do the Arts help me grow? _____: ATA Fine Arts Council.

(III) Area of Specialization Courses in Home Economics

TEACHING OF HOME ECONOMICS

Course code: EDBEE356 **Credit Hours: 3**

Course Description

Home Economics is one of the dynamic subjects that includes every aspect of human experience, including the physical, social, cultural, emotional, spiritual, economic, political and environmental dimensions of life. All these aspects are ever changing and differ from community to community, culture to culture and country to country. This course highlights the importance of these diverse domains for practical life. It discusses the aims, Learning Outcomes, history and importance of the contents covered under this course. The course will provide students with opportunities to understand basic human necessities and to study the well-being of individuals, families and societies, building up their awareness of the various dimensions affecting well-being. Thus, the course promotes the well-being of individuals, families and societies through the study of the provision of basic human requirements for food, clothing and effective resources management.

Course Outcomes

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

1. Be responsible citizens and consumers willing to contribute to the well-being of individuals, families and society to meet basic human needs
2. Demonstrate good use of management and organizational skills in handling physical and socio-economic resources for self, family, community and society
3. Analyze contextual factors contributing to the well-being of individual, family and society with application of knowledge from the nutrition and technology, fashion, textiles and clothing
4. Devise and implement strategies to solve complicated problems in technological contexts, in particular, food / fashion, using a range of appropriate techniques and procedures
5. Evaluate critically the impact of social, cultural, economic, scientific and technological developments on the well-being of individuals, families and society as a whole

6. Investigate the historical, cultural, technological and social factors in the development of fashion, clothing and textiles and their relationship to the well-being of the individual, family and society
7. Develop an aesthetic sense and creativity through the design and production processes of fashion, clothing and textile products understand and appreciate the nature and properties of food and the cultural, social and economic influences on the evolution of nutritional science and technology and food product development
8. Develop capability, values and attitudes to make informed decisions that foster a healthy lifestyle and contribute positively to the social and economic future of a society
9. Investigate the cultural, physical, chemical, nutritional, biological and sensory characteristics of food, and how these properties are exploited in designing and producing food products to meet specified criteria

Contents

1: Nature of Home Economics, Aims and Objective of Home Economics

2: History of Home Economics

3: Home Economics in Pakistan

4: Human Development and Family Studies

1. Introduction to human development
2. Definition, Learning Outcomes and importance of human development
3. Functions of family
4. Family relations

5: Nutrition Education

1. What is nutrition?
2. Significance of nutrition education
3. Methods of nutrition education

6. Nutrition and Health

1. Significance of nutrition for individual, family and community
2. Dietary guidelines
3. Dietary habits
4. Food distribution
5. Importance of safe food handling
6. Nutrition and disease

7. **Food Preparation and Processing Technologies**
   1. Scientific principles in food preparation
   2. Techniques in food preparation
   3. Food preservation
   4. Food hygiene and safety

8. **Community Nutrition**
   1. Significance of community nutrition
   2. Nutrition of vulnerable groups (Infants, preschool, Pregnant)

9. **Community Development and the Family**
   1. Definition of community
   2. Communities in urban and rural areas of Pakistan
   3. Functions of community in family development
   4. Role of formal organizations in the community
   5. Role of family in the community

10. **Fashion Studies**
   1. Clothing for functional needs
   2. Fashion sense
   3. Fashion design
   4. Fibres and fabrics
   5. Clothing construction

6. **Teaching-learning Strategies**

7. The instructional strategies will focus on constructionist learning approach. These strategies will be diverse in line with the course contents. Therefore, these strategies will include but not limited to demonstration, cooperative learning, collaborative learning, teacher and student-led discussion, individual and group presentations, reflective practices and classroom activities.

Assessment and Examinations

Examination	Marks
Mid-Semester	35%
Sessional Work	25%
Final Semester	40%

Suggested Readings

Alexander, T., & Economists, C. A. O. H. (2002). *Home Economics in Action*: Madrid: Harcourt Education Limited.

Benn, J. (2014). Food, nutrition or cooking literacy-a review of concepts and competencies regarding food education [online]. *International Journal of Home Economics,* 7(1), 13-35.

Cooney, S. H. (1977). *The first 50 years in service to home economics educators: A history of the Home Economics Education Association*, 1927-1977; Home Economics Education Association.

Colatruglio, S., & Slater, J. (2014).Food Literacy: Bridging the Gap between Food, Nutrition and Well-Being,InD. F. Falkenberg, T. McMillan, & B. Sims. (Eds.), *Sustainable well-being: Concepts, issues, and educational practices* (pp.37-55). Winnipeg, MB:ESWB Press. Editors.

Ferrar, B.M. (1964).*The history of home economics education in America and its implications for liberal education.* Michigan State University.

Henrietta, C. F.(1980). *Top of Form: Fleck's toward better teaching of home economics(3rd ed).*New York: Collier Macmillan Ltd.

Sarah S., Virginia, B. (1997).*Vincentia Rethinking Home Economics: Women and the History of a Profession.* Ithaca, NY: Cornell University Press.

Rhea S., Rhea S.,& Anna W.(2000).*Opportunities in Home Economics Careers* (1st ed).: McGraw-Hill.

Vincenti, V. B. (1981). *A history of the philosophy of home economics* (Doctoral dissertation). The Pennsylvania State University, University Park.

INSTRUCTIONAL TECHNOLOGY FOR FINE ARTS

Course code: EDBEE357 **Credit Hours: 3**

Course Description

This course intends to highlight the role of emerging technologies which are increasingly pushing the field of fine arts in a new dimension. In this course, the prospective teachers will explore how the latest trends in the use of technology affect student learning and engagement. They will also learn how the innovative learning tools work for fine arts. The course will also provide opportunities with the prospective teachers to comprehend English language skills. As the nature of this course is more towards the symbolic art than the theoretically rich text, the prospective teachers will experience the visual, symbolic and figurative presentation of art. Additionally, the prospective teachers will compare and contrast various tools used in drawing, crafting and presenting a piece of art. Thus, the course is a combination of technology and instruction for Fine Arts.

Course Outcomes

After completion of the course, the prospective teachers will be able to:

1. Understand the role of technology in the distribution of content, the facilitation of collaborative activities. and the assessment of students
2. Identify the existing and emerging technologies and their value in fine arts curriculum development
3. Utilize free and open resources to more deeply engage students in their learning
4. Design various learning activities that utilize social learning tools
5. Use tools and materials in art more skilfully
6. Construct lesson plan using multimedia
7. Conduct evaluation to ensure the learning of students in Fine Arts

Contents

Unit 1: Introduction

1.18 Introduction to Fine Arts and its types

1.19 Meaning and definition

1.20 Scope of Fine Arts

1.21 Importance of Arts

1.22 Aims and Learning Outcomes of Arts Teaching

1.23 Review of the unit

2: Approaches to Fine Arts Teaching

2.13 Receptive Approach

2.14 Creative Approach

2.15 Blended Approach (Receptive + Creative)

2.16 Expressive Approach

2.17 Disciplined Approach

2.18 Review of the unit

3: Social Technologies in Fine Arts

3.15 Introduction to social technologies

3.16 Digital media

3.17 Print media

3.18 Online social technology media (Social Networks, Wikipedia, Blogs)

3.19 Software relevant to Fine Arts

3.20 Positive and Negative Impacts of Technologies on Fine Arts

3.21 Review of the unit

4: Instructional Material in Teaching Fine Arts

4.11 Introduction to instructional material

4.12 Need of instructional material

4.13 Types of instructional material (text books, guide books, Suggested Readings materials, materials and accessories for painting and other art)

4.14 Educational trip to different museums

4.15 Review of the unit

5: Lesson Planning for Fine Arts

5.13 Concept of lesson planning

5.14 Why lesson planning

5.15 Element of lesson planning

5.16 Procedure to prepare and plan a lesson

5.17 Use of social technologies for lesson planning

5.18 Review of the unit

6: Evaluation in Fine Arts

10.1 Concept of evaluation
10.2 Purposes of evaluation
10.3 Tools and techniques of evaluation
10.4 Types of evaluation
10.5 Practical and theoretical modes of evaluation in Fine Arts
10.6 Review of the unit

11 Teaching-learning Strategies

12 The instructional strategies will focus on constructionist learning approach. These strategies will be diverse in line with the course contents. Therefore, these strategies will include but not limited to demonstration, cooperative learning, collaborative learning, teacher and student-led discussion, individual and group presentations, reflective practices and classroom activities.

Assessment and Examinations

Examination	Marks
Mid-Semester	35%
Sessional Work	25%
Final Semester	40%

Suggested Readings

Atkinson, D. (2002). *Art in education: Identity and practice(Vol. 1)*.New York: Springer Science & Business Media.

Barton, G. (Ed). (2014). *Literacy in the arts: Retheorising learning and teaching*: Switzerland: Springer.

Gagne, R. M. (2013). *Instructional technology: foundations*: New York: Routledge.

Mangal, S. K., &Mangal, U. (2009).*Essentials of Educational Technology*: New Delhi: Prentice-Hall of India Pvt. Limited.

Naidus, B. (2009). *Arts for change: Teaching outside the frame*: New York- London: NYU Press.

Pierre, S. D. L., & Zimmerman, E.(Eds.). (1997).*Research methods and methodologies for art education.* Reston, VA: National Art Education Association.

Rather, A. (2004). *Essentials of instructional technology*: New Dehli: Discovery Publishing House.

TRENDS AND CONTEMPORARY ISSUES INHOME ECONOMICS

Course code: EDBEE358 **Credit Hours: 3**

Course Description

This course presents educational processes and techniques that have transformed home economics. The course also shows how the family system has been changed to be adjusted itself to the changes in the complex civilization that forms its environment in which it functions. The increasing use of Information Communication Technologies (ICTs) in the form of smart phones, Tablets, and laptops has not only brought about cultural, social, and economic changes but also called for the attention of policy makers, academic administrators and educators to transform educational process. One of the biggest and most difficult problems in combating these changes is the training of young children who are vulnerable due to the increasing use of processed food. Since, technology, food and biology have merged first time in the history of the world in such a way that has caused a paradigm shift, the significance to understand these disciplines with respect to the tendencies of home economics cannot be denied. Thus, ever greater attention is needed to address the emerging issues and challenges related to bio-technology, food processing, human relationships, and home economics.

The understanding of above mentioned challenges, issues and tendencies is indispensable for prospective teachers. This course is designed to provide the teachers with opportunities to learn the best practices, critical factors and potential emerging challenges that shape the future of home economics. Additionally, the prospective teachers will have the opportunities to have a fresh understanding of family, food technologies, nutrition, health, and food preparation. Thus, this course caters the needs of present prospective teachers' preparation.

Course Outcomes

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

1. Have a sound knowledge on the history and present status of the subject of home economics
2. Identify the critical factors that help regain the image of home economics and promote it
3. Have technical knowledge in integrating ICTs with teaching methods of home economics

4. Devise best strategies in combining the relevant stakeholders (students, family, community and experts) to play their role efficiently
5. Have deep understanding on nutrition, technology, fashion and textiles by transferring the cultural heritage for well-being of individual, family and society
6. Plan and implement mechanism to include individuals, families and society as a whole for collective human development
7. Have sound knowledge of emerging trends in teaching and learning of home economics
8. Develop an attitude of conducting quality assessment
9. Critically analyze the role of national, cultural, and social forces/factors that can advance home economics in future

Contents

Understanding Contextual Factors that Influence Home Economics

1.1 Understanding the History of Home Economics

1.2 National efforts in Helping or Hindering Home Economics

1.3 Critical Factors that Diminish the Image of Home Economics

1.4 Taking Initiatives to Regain the Image of Home Economics

1.5 Review of the Unit

2: Role of ICT, Genetically Modified Food and Processed Food

2.1 How does ICT influence Home Economics?

2.2 What is genetically modified food?

2.3 How does genetically modified food affect human health?

2.4 What is processed food?

2.5 When processed food or genetically modified food is recommended?

2.6 Ways to combat with disastrous consequences of genetically modified food using ICT

2.7 Review of the unit

3: Collaboration: the Nee of the Time

3.1 Rationale to collaborate with family and community

3.2 How can family and community be trained in understanding basic nutritional and health problems?

3.3 How can family and community be trained for inclusive human development?

3.4 How can family and community be included in home economics course?

3.5 Review of the unit

4: Trends in Methods of Teaching Home Economics

4.1 Progressive versus Functional approach

4.2 Learner-centred versus teacher-centred approach

4.3 Problem-solving or eclectic teaching (combination of a number of methods—demonstration, discussion, counselling, lecturing, visual material or any other that suits with the situation)

4.4 Understanding learning strategies of home economics

4.5 Review of the unit

5: Issues in Assessment of Home Economics

5.1 Aligning Instruction with Outcomes

5.2 Practical versus theoretical (written) assessment

5.3 Assessment (Formative assessment, Summative Assessment, content of assessment, reliability, validity)

5.4 Tools of Assessment

5.5 Review of this unit

Assessment and Examinations

Examination	Marks
Mid-Semester	35%
Sessional Work	25%
Final Semester	40%

Suggested Readings

Anderson, E., Clark, V. L., & Section, A. H. E. A. T. E. (1993).*Marketing home economics: issues and practice*: Teacher Education Section, American Home Economics Association.

Cumming, C., Foley, R., Long, A., & Turner, E. (1986). Developing assessments in home economics. *Journal of Curriculum Studies, 18*(2), 215-218.

Grossbard-Shechtman, S. (2001).The New Home Economics at Colombia and Chicago.*Feminist Economics, 7*(3), 103-130.

M.O., A., & J.O., U. (2010).Impact of technology and culture on home economics and nutrition science education in developing countries. *Multicultural Education & Technology Journal, 4*(1), 4-16.

Nickols, S. Y., & Kay, G. (2015).*Remaking home economics: Resourcefulness and innovation in changing times*. Georgia: University of Georgia Press.

Pendergast, D., McGregor, S. L. T., & Turkki, K. (Eds.) (2012). *Creating home economics futures: The next 100 years.* Queensland, Australia: Australian Academic Press.

Shommo, M. I. (1995). Teaching home economics by a problem-solving approach in sudanese secondary schools for girls. *British Journal of In-Service Education, 21*(3), 319-330.

Tobin, D. (1989). The teaching of home economics — myths, methods and reality. *British Journal of In-Service Education, 15*(3), 197-208.

(III) Area of Specialization Courses in Arabic
TEACHING OF ARABIC

Course code: EDBEI351 Credit Hours: 3

بی۔ایڈ (اسلامک ایجوکیشن)

مطالعاتی خاکہ: تدریسِ عربی

Method of Teaching in Arabic

اہمیت (Rational)

عربی زبان ہماری دینی ضرورت ہے۔عربی زبان کے بغیر ہم قرآن جو کہ کتاب ہدایت ہے کو صحیح طور پر نہیں سمجھ سکتے۔عربی زبان ہمارے نبی ﷺ کی زبان ہے۔

بین الاقوامی طور پر اہل عرب ہمارے اسلامی بھائی ہیں ان سے ہمارے روابط مختلف نوعیت کے ہیں، تعلیم وتربیت اور سائنس وثقافت کے میدانوں میں باہمی تبادلوں کا سلسلہ بڑھ گیا اور بہت سی بین الاقوامی انجمنیں اور سوسائٹیاں ہیں جو عالمی سطح پر مختلف پراجیکٹس اور موضوعات کو اپنے دائرہ کار میں لاتی ہیں اور اساتذہ، سائنسدانوں اور ٹیکنیکی ماہرین کے باہمی تبادلے ہو رہے ہیں۔ان حالات میں عربی زبان کی اہمیت باہمی رابطے کے لیے مسلمہ ہے۔

مقاصد:

کورس کی تدریس کے اختتام پر طلبہ وطالبات ذیل کے اہداف حاصل کر چکے ہوں گے۔

۱۔ چاروں مہارات زبان سے مانوس ہو چکے ہوں گے۔

۲۔ استماع اور تکلم کے مقصد کے حصول کیلئے مختلف تدریسی وسائل وآلات کی پہچان کر چکے ہوں گے۔

۳۔ عربی زبان کی تدریس میں جدید طریقہ ہائے تدریس کی عملی تطبیق مؤثر انداز سے کر سکیں گے۔

۴۔ نظم ونثر اور گرامر کے جامع منصوبہ ہائے سبق تیار کر سکیں گے۔

۵۔ صوتی اور نظری تدریسی معاونات کا مؤثر استعمال جان سکیں گے۔

۶۔ نظموں اور کہانیوں کے خلاصہ جات تحریر کر سکیں گے۔

۷۔ عربی کی تدریس کے دوران مطلوبہ زبان کے طور پر طلبہ کی ترقی کا جائزہ لے سکیں گے۔

۱۔ سیکنڈری سکولوں میں عربی زبان کی تدریس وتعلم کے مقاصد

۲۔ زبان اور تدریسِ زبان

زبان کی ماہیت، تعارف واہمیت

تدریسِ زبان کی اہمیت

عربی زبان کی اہمیت، قدر وقیمت اور خصوصیات

پاکستان میں عربی زبان

۳۔ **تدریس وتعلیم زبان کی چار مہارات**

(الف) مہارتِ استماع

استماع کی صلاحیت میں اضافہ کیلئے ٹیپ ریکارڈر کا استعمال

عربی اصوات کی پہچان

حرکاتِ قصیرہ وحرکاتِ طویلہ میں فرق

قریب المخرج اصوات میں فرق

حروفِ مُشدّدہ اور تنوین کی پہچان

نبر وتفخیم کی پہچان

حروفِ قمریہ وشمسیہ

(ب) مہارتِ تکلم

مکالمہ اور بات چیت

مہارتِ استماع اور مہارتِ تکلم دراصل ایک ہی چیز ہیں فرق صرف یہ ہے کہ استماع کی مہارات

نظری پہلو ہے اور تکلم کی مہارات اُن کا تطبیقی پہلو ہے۔

(ج) مہارتِ قراءت

طریقہ ہائے قراءت

(د) مہارتِ کتابت

عربی رسم الخط

ھمزۂ وصل وھمزۂ قطع

املاء اور اس کی اقسام

۴۔ **تدریسِ عربی: نظم ونثر اور گرامر کی تدریس اور اُن کے اسباق کے اشارات**

۵۔ **طریقہ ہائے تدریسِ عربی**

طریقۃ القواعد والترجمہ

الطریق المباشر

طریقۃ القراءۃ

الطریقۃ الشفویۃ الاذنیۃ

عربی زبان کی لغت (ڈکشنری) کا استعمال

۶۔ **تدریس عربی میں تدریسی معاونات اور اُن کی اہمیت وضرورت**

۷۔ **اکتسابی جائزہ**

انشائیہ اور معروضی سوالات کی ترتیب وتدوین

تفویض کار وغیرہ	**25%**
مڈٹرم ٹیسٹ	**35%**
فائنل ٹیسٹ	**40%**

ٹیکسٹ بک: تدریب المعلمین ۱۔۲ (برائے عربک ٹیچرز ٹریننگ کورس)

مجوزہ معاون کتب:

۱۔	فضل الٰہی ملک، پروفیسر	مقالات جلد اوّل و دوم
۲۔	محمد بشیر، مولانا	مفتاح الانشاء
۳۔	ایم۔ڈی اسلم، پروفیسر	تدریس عربی
۴۔	محمود اسماعیل چینی، ڈاکٹر ودیگر	العربیۃ للناشئین (کتاب التلمیذ)
۵۔	عبداللہ، محمود محمد	اللغۃ العربیۃ فی باکستان (عربی)
۶۔	مظہر معین، ڈاکٹر	پاکستان میں عربی زبان
۷۔	محمد بن شحات حسین،	نظام التعلیم فی باکستان
۸۔	مظہر معین، ڈاکٹر	تعلیم اللغۃ العربیۃ
۹۔	مظہر معین، ڈاکٹر	حاضر اللغۃ العربیۃ
۱۰۔	ندوی، ابوالحسن	القراءۃ الراشدہ
۱۱۔	مظہر معین، ڈاکٹر	عصر جدید میں عربی زبان
۱۲۔	علی الجارم ومصطفیٰ امین	النحو الواضح
۱۳۔	محمد بشیر، مولانا،	اساس الصرف
۱۴۔	ندوی، ابوالحسن	معلم الانشاء

INSTRUCTIONAL TECHNOLOGY FORARABIC

Course code: EDBEI352 **Credit Hours: 3**

Course Description

Instructional Technology is to create engaging, effective learning experiences that cater to the needs of different individuals. It is the precise procedure of outlining, creating, assessing and dealing with the whole instructional procedure to guarantee successful and proficient learning. Below are the basic elements of Instructional Technology

If we want learn instruction technology of Arabic then realize that this is because the largest religion in the Middle East is Islam. The language is very **important** in Islam, because Muslims believe that Allah (God) used it to talk to Muhammad through the Archangel Gabriel (Jibril), giving him the Quran in **Arabic**.

Learning Outcomes:

After the successful completion of this course the trainee teachers will be able to: ¬

- To meet the curricular needs of all learners
- To provide electronic access to curriculum
- To provide professional development that connects technology with learning, as well as provides ready access to a full range of state of the art tools.
- To improve instructional practices of teachers in order to effectively integrate technology.
- To teach critical thinking skills and foster creativity
- To provide global access to information about language
- To provide a medium for expression and communication in Arabic
- To provide skills and proficiencies necessary in Arabic
- To improve the effectiveness of administrative tasks
- To collect, assess, and share performance information using data to drive instruction in Arabic

Contents

Part- I 1. Teaching

1.1. Concept of teaching: Structure and features
1.2. Success full teaching models
1.3. Professionalism in teaching
1.4. Teaching as an art or science
1.5. Teaching competence
1.6. Effective teaching or effective teacher

2. Methods and Techniques of Teaching Arabic

2.1. Introduction: What are the methods, approaches and techniques of teachingArabic?
2.2. Lecture method and Expository teaching method
2.3. Discussion method 2.4.Demonstration method
2.5. Audio Video learning
2.6. Spoken Arabic

3. Lesson Planning as a Teaching Tool in Arabic

3.1. Meaning and importance of lesson planning
3.2. Types of lesson planning 3.3.Approaches to lesson planning
3.4. Elements of lesson planning,
3.5. Different Formats of Lesson Plans
3.6. Different lesson plan discussion

4. Instructional Technology: Introduction and Arabic

4.1 .Meaning and definition of Instructional technology
4.2. Origin of Instructional technology
4.3. History of Instructional technology
4.4. Types of Instructional technology
4.5. Components of Instructional technology
4.6. Classification of AV-aids
4.7. Merits and demerits of educational technology in the field of education

5. Types of Instructional Technologies, Media and Their Uses in Learning Process

5.1. Introduction: Basic concepts
5.2. Radio, Tape-Recorder,
5.3. Television and video, Educational telecasting
5.4. Videotext and electronic mail 5.5.Interactive video
5.6. Projectors: types and uses
5.7. Computer, Internet and intranet
5.8. Multimedia
5.9. Language laboratories
5.10. Models and modeling
5.11. Board work: Bulletin and fallen boards
5.12. Use of locally available low cost material of educational technology'
5.13. Use of Mass Media in Arabic Education.

6. Current types of the Instructional technology systems and their application

6.1. Computer-based Instructional technology
6.2. Interactive video and Teleconferencing
6.3. Use of Internet for
6.4. Use of E Library and Maktba e shamila

7. Integrating Technology into the Curriculum and Instruction of Arabic

7.1. Issues and trends related to technology use in instruction for Arabic

Teaching-learning Strategies

The instructional strategies will focus on constructionist learning approach. These strategies will be diverse in line with the course contents. Therefore, these strategies will include but not limited to demonstration, cooperative learning, collaborative learning, teacher and student-led discussion, individual and group presentations, reflective practices and classroom activities.

Assessment and Examinations

Examination	Marks
Mid-Semester	35%
Sessional Work	25%
Final Semester	40%

Suggested Readings

Kogan Page. Feden, P. D. & Vogel, R. M. (2003).*Methods of teaching*. Boston: Mc-Graw Hill.

Joyce, B., Weil, M.& Calhoun, E . (2000). *Models of teaching*.(6th ed.).Boston: Allyn and Bacon.

Mohanty, S.B. (1995). *Improving university and college teaching*. New York: P.H. Publishing corporation.M.D. Aslam, prof. Arabic Method

Muyskens, I. A. (Ed) (1998). *New ways of learning and teaching: Focus on technology and foreign language education*. Boston: Heinle and Heinle Publishers.

Norton, P. & Sprague, D. (2001).*Technology for teaching*. Boston: Allyn & Bacon.

Rashid, M. (Ed.).(2001). *Allied material on teaching strategies*. Islamabad: AIOU.

Roblyer, M. D., Edwards, J., &Havriluk, M. A. (1997). *Integrating educational technology intoteaching*. Columbus: Prentice –Hall

Sharma, A. (1999). *Modern educational technology*. New Delhi: Commonwealth Publishers.

Trends and Contemporary Issues in Arabic

Course code: EDBEI352 **Credit Hours: 3**

B.Ed. (one & half year)

Trends and Issues of Teaching Methods in Arabic

اہمیت (Rational)

عربی زبان ہماری دینی ضرورت ہے۔عربی زبان کے بغیر ہم قرآن جو کہ کتاب ہدایت ہے کو صحیح طور پر نہیں سمجھ سکتے۔عربی زبان ہمارے نبی ﷺ کی زبان ہے۔

عربی قرآن پاک کی زبان ہے یہی وجہ ہے کہ عربی آج تک قائم ہے اور دنیا میں سب سے زیادہ بولی جاتے والی زبان میں دوسرے نمبر پر ہے۔اور دنیا میں سب سے زیادہ بولی جانے والی زبان میں دوسرے نمبر پر ہے۔اس لیے یہ ہماری دینی ضرورت کے ساتھ ساتھ بین الاقوامی ضرورت بھی ہے۔

مقاصد:

۱۔ چاروں مہارات زبان سے مانوس ہو چکے ہوں گے۔

۲۔ سننے اور بولنے کی صلاحیت مہیا کرنا۔

۳۔ قرآن کو براہ راست سمجھنا۔

۴۔ گرائمر کے اصول قواعد جاننا

۵۔ اردو اور عربی ترجمہ کرسکیں۔

۶۔ عربی کتب سے استفادہ کرسکیں۔

۱۔ عربی تعلیم وتدریس کے مقاصد

۲۔ زبان اور تدریس زبان

زبان۔تعارف واہمیت

تدریس کی زبان کی اہمیت

عربی زبان کی اہمیت،قدر وقیمت اور خصوصیات

عربی بین الاقوامی زبان

پاکستان میں عربی زبان

۳۔ گردان

فعل ماضی

فعل مضارع

فعل امر

فعل نہی

دیگر

۴۔ **تدریس وتعلیم**

سننے اور سمجھنے کی صلاحیت

عربی اعراب کی پہچان

مخارج

اعراب وتنوین

بولنے کا فن

حروف، قمریہ شمسیہ

املاء

عربی اور اردو میں مماثلت

۵۔ **طریقہ ہائے تدریس عربی**

طریقہ قواعد وترجمہ

طریقہ القراءہ

الطریقۃ الشفویۃ الاذنیۃ

الطریق المباشر

۶۔ **تدریسی معاونت اور اس کی اہمیت وضرورت**

انٹرنیٹ

سی ڈیز

Slides

لیکچرز

عربی زبان کی لغت (ڈکشنری) کا استعمال

انشائیہ اور معروضی سوالات کی ترتیب وتدوین

تفویض کار وغیرہ	25%
مڈٹرم ٹیسٹ	35%
فائنل ٹیسٹ	40%

ٹیکسٹ بک: تدریب المعلمین ۱۔۲ (برائے عربک لیچرز ٹریننگ کورس)

تجویز کردہ معاون کتب:

۱۔	فضل الٰہی ملک، پروفیسر	مقالات جلد اوّل و دوم
۲۔	محمد بشیر، مولانا	مفتاح الانشاء
۳۔	ایم۔ڈی اسلم، پروفیسر	تدریس عربی
۴۔	محمود اسماعیل چینی، ڈاکٹر ودیگر	العربیۃ للناشئین (کتاب التلمیذ)
۵۔	عبداللہ، محمود محمد	اللغۃ العربیۃ فی باکستان (عربی)
۶۔	مظہر معین، ڈاکٹر	پاکستان میں عربی زبان
۷۔	محمد بن شحات حسین،	نظام التعلیم فی باکستان
۸۔	مظہر معین، ڈاکٹر	تعلیم اللغۃ العربیۃ
۹۔	مظہر معین، ڈاکٹر	حاضر اللغۃ العربیۃ
۱۰۔	ندوی، ابوالحسن	القراءۃ الراشدہ
۱۱۔	مظہر معین، ڈاکٹر	عصر جدید میں عربی زبان
۱۲۔	علی الجارم ومصطفیٰ امین	النحو الواضح
۱۳۔	محمد بشیر، مولانا،	اساس الصرف

(III) Area of Specialization Courses in Islamic Studies
TEACHING OF ISLAMIC STUDIES

Course Code: EDBEI356 **Credit Hours : 3**

B.Ed.(one & half year)

مطالعاتی خاکہ: تدریس اسلامیات

Methods of Teaching in Islamic Studies

اہمیت (Rational)

پاکستان اسلامی نظریہ حیات کی بنیاد پر قائم ہوا تھا - اس نظریہ حیات کے فروغ اور اسلامی تہذیب کو آئندہ نسلوں تک منتقل کرنے کے لیے مسلمان تربیت یافتہ اساتذہ کی ضرورت ہے - لیکن تربیت کے ساتھ یہ ضروری ہے کہ نظریہ حیات کے ساتھ ان کی دلی لگن Commitment ہو - اسلامی تعلیمات کو حکمت و دانائی کے ساتھ پڑھانے کا فن جانتے ہوں ، اور اسلامی بنیادی ضروری تعلیمات کا شعور و آگہی رکھتے ہوں - اسلامیات کی اہمیت و ضرورت کو جانتے اور اسلامی نظریہ حیات کے مقاصد سے بھی آگاہ ہوں - اور تدریس اسلامیات میں درپیش مسائل سے آگاہ - اور مسلمان استاد کی صفات ذمہ داریوں اور فرائض کا شعور رکھتے ہیں -

۲- عمومی مقاصد

اس کورس کے مطالعہ کے بعد طلبہ اس قابل ہو جائیں گے کہ

۱- اسلامی ضابطہ حیات کا مفہوم بیان کر سکیں -

۲- دین اور اسلام کی اصطلاحات کو سمجھا سکیں -

۳- اسلام اور پاکستان کے تعلق کو سمجھا سکیں -

۴- اسلامی عقائد کے مفہوم و مطلب ان کے تقاضوں پر روشنی ڈال سکیں ارکان اسلام کی اہمیت واضح کر سکیں -

۵- اسوہ حسنہ کی روشنی میں موقع کے مطابق طریقہ تدریس استعمال کر سکیں -

۶- اسوہ حسنہ کی روشنی میں معلمین سے مثالی برتاؤ کر سکیں -

۷- اسلام میں کردار سازی کی اہمیت کو واضح کر سکیں -

۸- اسلام کے طریق کردار سازی کو اچھی طرح سمجھ سکیں اور بھرپور واضح کر سکیں -

۹- تربیت کردار کے عملی کردار کو پورا کر سکیں -

۱۰- اسلامیات کی اہمیت بیان کرسکیں -

۱۱- دوسرے مضامین کی تدریس کے مقابلے میں تدریس اسلامیات کی ضرورت کو واضح کرسکیں -

۱۲- پاکستان کے استحکام میں تدریس اسلامیات کا جائزہ لے سکیں -

۱۳- پاکستان میں اسلامیات کی تاریخ بتا سکیں -

خصوصی مقاصد

۱- اسلامیات کا طبعی، سماجی، فطری اور فنون لطیفہ سے تعلق کو واضح کرنا -

۲- تدریس اسلامیات میں مختلف روایتی طریقوں کی اہمیت وضرورت سمجھانا -

۳- موضوع کی مناسبت سے طریقہ تدریس کے انتخاب کے اصول بتانا -

۴- تدریس اسلامیات میں مروجہ روایتی طریقہ کو موثر استعمال بتانا -

۵- تدریس اسلامیات کے عمومی، خصوصی اور تدبیر اصول اور اسلوب بتانا -

۶- اسلامیات کی تدریس کو موثر بنانے کے لیے سمعی وبصری معاونات کا استعمال سکھانا -

۷- بحیثیت استاد بصری، معاونات خود تیار کرنا سکھانا -

۸- تدریس اسلامیات میں امتحانات کے ذریعے جائزہ کے طریقے سے روشناس کرانا -

۹- پرچہ بنانے کے اصولوں سے آگاہ کرنا اور پرچہ بنانے کا طریقہ بتانا -

۱۰- سبق کی منصوبہ بندی کی اہمیت، مقاصد، ضرورت بنانا اور سبقی اشارہ بنانے کا طریقہ سکھانا -

۱- اسلام

۱.۱ اسلام کا مفہوم

۱.۲ دین کا مفہوم

۱.۳ دین اسلام کی خصوصیات اور اس کے تقاضے

۱.۴ اسلامی زندگی کے بنیادی تصورات

۱.۵ اسلام میں تعلیم کی اہمیت اور اسلامی نظام تعلیم کی خصوصیات

۱.۶ اسلامیات کا مفہوم

۲- ثانوی سطح پر تدریس اسلامیات

۲.۱ اسلامیات کا مفہوم

۲.۲ پاکستان میں اسلامیات کی اہمیت وضرورت

۲.۳ تدریس اسلامیات کا مختصر تاریخی جائزہ

۲.۴ ثانوی سطح پر مروجہ اسلامیات کے نصاب پر ایک نظر

۲.۵ اسلامیات بحیثیت ایک مضمون

۲.۶ تدریس اسلامیات کی وسعت

۲.۷ تدریس اسلامیات کا دیگر مضامین سے ربط

۲.۸ تدریس اسلامیات کے مآخذ

۲.۹ تدریس اسلامیات کے مراکز

۲.۱۰ تدریس اسلامیات کے مقاصد

۲.۱۱ کردار سازی میں اسلامیات کا کردار

۲.۱۲ کردار سازی کے طریقے اور مشاغل وسرگرمیاں اور اصول

۲.۱۳ معلم کا کردار

۲.۱۴ مسلمان استاد کے اوصاف، مسلمان مثالی استاد کی خصوصیات

۲.۱۵ ذاتی، علمی، پیشہ ورانہ

۲.۱۶ آنحضور ﷺ بحیثیت معلم اعظم

۳- اسلامیات کی حکمت تدریس

۳.۱ تدریس کا مفہوم

۳.۲ تدریس کے اصول

۳.۳ عمومی، خصوصی، تدبیری، اہتمامی اصول

۳.۴ تدریس کو موثر بنانے کے اسلوب

۳.۵ طریقہ تدریس کے انتخاب کے اصول

۳.۶ تدریس اسلامیات کے مختلف طریقے

۳.۷ (تقریری، منطقی، طریقہ الترجمہ، مباحثی، تفویضی طریقہ، منصوبی طریقہ، مظاہراتی طریقہ،

اکتشافی طریقہ، استقرائی طریقہ، مسئلی طریقہ، مشاہداتی طریقہ، سیاحتی طریقہ)

۴- **سمعی اشارہ اور سمعی بصری معاونات**

۱.۴ سمعی اشارہ کا مفہوم، اہمیت وضرورت

۲.۴ سمعی اشارہ کے مقاصد

۳.۴ سمعی اشارہ کی اقسام

۴.۴ سمعی اشارہ کے نمونے اور خاکے

۵- **امتحان اور جائزہ**

۱.۵ مقاصد اور اہمیت

۲.۵ جائزہ کے طریقے اور اقسام

۳.۵ اسلامیات کے مضمون کی پرچہ سازی کے اصول

نوٹ- کورس کی تفصیل نوعیت کے مطابق درج ذیل کتب اس کورس کے لیے تجویز کی جاتی ہیں-

ASSESSMENT

The Students will be assessed according to the following criteria

Assignment/Project/Presentation/Review	25%
Mid Term Test	35%
Final Test	40%

Text Book(s):

ڈاکٹر عبدالرشید ارشد، تدریس اسلامیات، ملتان کاروان ادب

Further Readings:-

۱- مزمل احسن شیخ، تدریس اسلامیات، لاہور

۲- علامہ اقبال اوپن یونیورسٹی تدریس اسلامیات

۳- افضل حسین فن تعلیم وتربیت، لاہور، اسلامک پبلی کیشنز

۴- سید سلیمان ندوی خطبات مدراس، اسلام آباد، نیشنل بک فاؤنڈیشن

۵- پروفیسر خورشید احمد، اسلامی نظریہ حیات، کراچی یونیورسٹی، کراچی

۶- رشید احمد قاسمی تدریس اسلامیات، گلوب پبلشرز، لاہور

۷- شبلی نعمانی، سیرۃ النبی ﷺ، اسلام آباد، نیشنل فاؤنڈیشن

۸- ابن ہشام سیرۃ النبی ﷺ، مکتبہ المعارف، بیروت

۹- صفی الرحمٰن رحیق المختوم

۱۰- ابوالکلام آزاد ارکان اسلام، مکتبہ جمال، تیسری منزل حسن مارکیٹ، اردو بازار، لاہور

۱۱- جلیل احسن ندوی، مولانا، راہ عمل، اسلامک پبلی کیشنز، لاہور

۱۲- وحیدالدین خان، مولانا، دارالنذکیر، رحمان مارکیٹ، غزنی سٹریٹ، اردو بازار، لاہور

۱۳- ڈاکٹر عبدالحفیظ فاضلی، مسلم فکر کی قرآنی جہالت، آسانیاں پبلی کیشنز

۱۴- احمد رفیق اختر، احسن تقویم، سنگ میل پبلی کیشنز، لاہور

15. N.A., Baloch, Education Based on Islamic Values : Imperatives and Implication, Pakistan Study Centre Unviersity of Sindh, Allama I. I. Kazi Campus Jamshoro, Sindh, Pakistan

16. Robert L. Gulick, Jr. Muhammad The Educator, Institute of Islamic Culture Club Road, Lahore.

17. G.W. Ch., Islam and the Contremporary World, Indus Thamus Publisher Limited, London.

INSTRUCTIONAL TECHNOLOGY OF ISLAMIC STUDIES

Course Code: EDBEI357 **Credit Hours: 3**

Course Description

Technology is the application of scientific knowledge for the welfare of humanity. If we use this scientific knowledge for the welfare of students and teachers (for better teaching and learning purposes) it becomes Instructional technology. Many new technologies have emerged with the passage of time. Each technology brings new challenges and opportunities. Sometimes they revolutionize the world e.g. as computer technology has revolutionized the 20th & 21st centuries.

Learning Outcomes:

After the successful completion of this course the trainee teachers will be able to: ¬

- Understand the applications of different technologies in teaching learning process ¬
- Evaluate the role and importance of technologies in teaching- learning process ¬
- Select a suitable technology for transmitting information relevant to a particular topic of a particular subject
- Plan lessons identifying appropriate technologies and methods to deliver those lessons effectively ¬ Understand and apply of different methods and techniques of teaching ¬
- Develop and exhibit better pedagogical skills (teaching skills) ¬
- Comprehend recent trends, problems and issues in the use of modern technologies and teaching methods in our local context

Contents

Part- I 1. Teaching

1.1. Concept of teaching: Structure and features
1.2. Professionalism in teaching
1.3. Teaching as an art or science
1.4. Teaching competence
1.5. Effective teaching or effective teacher

2. Methods and Techniques of Teaching Islamic Studies

2.1. Introduction: What are the methods, approaches and techniques of teaching Islamiat?
2.2. Lecture method and Expository teaching method
2.3. Discussion method 2.4.Demonstration method
2.5. Micro-teaching method
2.6. Programmed instruction
2.7. Role play method, Simulations and games 2
2.8. Discovery and inquiry methods
2.9. Team teaching method
2.10. Project method, Activity and play way method
2.11. Problem solving method
2.12. Advance organizer
2.13. Brain Storming
2.14. Super Learning

3. Lesson Planning as a Teaching Tool in Islamic Studies

3.1. Meaning and importance of lesson planning
3.2. Types of lesson planning 3.3.Approaches to lesson planning
3.4. Elements of lesson planning,
3.5. Different Formats of Lesson Plans
3.6. Using lesson plan in teaching (Herbartian approach, John Dewey and Kilpatrick approach,) Part- II (Educational Technology)

4. Instructional Technology: Introduction

4.1 .Meaning and definition of Instructional technology
4.2. Origin of Instructional technology
4.3. History of Instructional technology
4.4. Types of Instructional technology
4.5. Components of Instructional technology
4.6. Classification of AV-aids
4.7. Merits and demerits of educational technology in the field of education

5. Types of Instructional Technologies, Media and Their Uses in Learning Process

5.1. Introduction: Basic concepts
5.2. Radio, Tape-Recorder,
5.3. Television and video, Educational telecasting
5.4. Videotext and electronic mail 5.5.Interactive video
5.6. Projectors: types and uses
5.7. Computer, Internet and intranet
5.8. Multimedia
5.9. Language laboratories
5.10. Models and modelling
5.11. Board work: Bulletin and fallen boards
5.12. Use of locally available low cost material of educational technology'
5.13. Use of Mass Media in Education.

6. Current types of the Instructional technology systems and their application

6.1. Computer-based Instructional technology
6.2. Interactive video and Teleconferencing
6.3. Personal digital assistants (PDAs)

7. Integrating Technology into the Curriculum and Instruction of Islamic Studies

7.1. Issues and trends related to technology use in instruction

Assessment and Examinations

The students will be assessed according to the following criteria

Examination	Marks Distribution
Sessional Work	25%
Mid-Semester	35%
Final Semester	40%

Suggested Readings:

Borich , G. D.(1996). *Effective teaching methods*. New York: Practice- Hall.

Ellington, H. & Race, P. (1994). *Producing teaching materials: A handbook for teachers and trainers*. London:

Kogan P., Feden, P. D., & Vogel, R. M. (2003).*Methods of teaching*. Boston: Mc-Graw Hill.

Joyce, B., Weil, M.& Calhoun, E . (2000). *Models of teaching*.(6th ed.).Boston: Allyn and Bacon.

Mohanty, S.B. (1995). *Improving university and college teaching*. New York: P.H. Publishing corporation.

Muyskens, I. A. (Ed). (1998). *New ways of learning and teaching: Focus on technology and foreign language education*. Boston: Heinle and Heinle Publishers.

Norton, P.,& Sprague, D. (2001).*Technology for teaching* BostonAllyn & Bacon.

Rashid, M. (Ed.)(2001). *Allied material on teaching strategies*. Islamabad: AIOU.

Roblyer, M. D., Edwards, J., and Havriluk, M. A. (1997). *Integrating educational technology into teaching*. Columbus: Prentice -Hall

Sharma, A. (1999). *Modern educational technology*. New Delhi: Commonwealth Publishers.

INSTRUCTIONAL TECHNOLOGY FOR ISLAIC STUDIES

Course Code:EDBEI357 Credit Hours: 3

بی۔ایڈ(اسلامک ایجوکیشن)

Trends and Issues of Teaching Methods in Islamic Studies

اہمیت(Rational)

اسلام ایک مکمل ضابطہ حیات ہے۔چودہ سو سال پہلے آپ ﷺ نے اس دین کو مکمل کیا اور ذمہ داری آئندہ آنے والے اہل ایمان کے سپرد کی۔حضور نبی ﷺ خود ایک معلم تھے اور فرمایا کہ طالب علم بن جاؤ یا معلم۔ اس طریقہ تعلیم کو حضور ﷺ سے لیکر آج تک کیسے نافذ کیا گیا۔اب اس کے اندر کیا شعور وآگہی آسکتی ہے۔طلبہ کو یہ بتانا کہ بدلتے زمانے اور رجحانات میں کن ذرائع سے استفادہ کرنا ہے اور تدریس میں درپیش مسائل سے آگاہ ہونا ہے۔ایک مسلمان استاد کی صفات، ذمہ داریوں اور صفات کا شعور دینا ہے۔

عمومی مقاصد:

اس کورس کے مطالعے کے بعد طلبہ اس قابل ہو جائیں کہ

۱۔ اسلامی ضابطہ حیات کو جان سکیں۔

۲۔ استاد کی اہمیت جان سکیں۔

۳۔ نظریہ اسلام سے روشناس ہو سکیں۔

۴۔ ذرائع علم کی نئی راہیں تلاش کر سکیں۔

۵۔ اسوہ حسنہ کی روشنی میں طریقہ تدریس استعمال کر سکیں۔

۶۔ اسوہ حسنہ کی روشنی میں معلم ومتعلم کی ذمہ داریاں جان سکیں۔

۷۔ اسلام میں تربیتی نظام کو سمجھ سکیں۔

۸۔ اسلام میں شخصیت سازی کی اہمیت واضح کر سکیں۔

۹۔ عملی زندگی میں کردار کی اہمیت واضح کر سکیں۔

۱۰۔ مذاہب اور اسلامی کی اہمیت جانا جا سکیں۔

۱۱۔ تدریس اسلام کی اہمیت دیگر مضامین کی نسبت واضح کر سکیں۔

۱۲۔ پاکستان کے استحکام میں تدریس اسلام کی اہمیت جان سکیں۔

۱۳۔ پاکستان مطالعہ اسلام کی تاریخ بتا سکیں۔

خصوصی مقاصد

۱۔ اسلام اور دنیا کا تعلق واضح کرنا۔

۲۔ اسلامیات اور؟ سائنسی علوم کے تعلق کو واضح کرنا۔
۳۔ طریقہ تدریس کے اصول وضوابط واضح کرنا۔
۴۔ تدریس اسلامیات میں نئی راہیں کھولنا۔
۵۔ تدریس اسلامیات کے اصول وضوابط واضح کرنا۔
۶۔ اسلام کی تدریس موثر بنانے کے لیے سمعی وبصری معاونات کا استعمال
۷۔ بحیثیت استاد بذریعہ کمپیوٹر وجدید ٹیکنالوجی کا استعمال
۸۔ سوشل میڈیا کا استعمال اور اسلام کی ترویج
۹۔ سوالات کی تیار کرنے کا طریقہ
۱۰۔ سبق کی منصوبہ بندی، مقاصد اہمیت اور ضرورت بتانا۔

۱۔ مذہب

مذہب ودین کا مفہوم
مذہب کا آغاز وتاریخ
اسلام کا مفہوم
ایمان کا مفہوم
اسلامی زندگی کے بنیادی تصورات
اسلام میں تعلیم کی اہمیت اور اسلامی نظام تعلیم کی خصوصیات

۲۔ تدریس

طریقہ تدریس
حضور ﷺ بطور معلم
ذرائع علم
حتمی ذریعہ علم
وحی
تدریس اسلامیات
تدریس اسلامیات اور پاکستان
تدریس اسلامیات کے مآخذ
معلم کا کردار

مثالی استاد

۳۔ اسلامیات کی حکمت تدریس

تدریس کا مفہوم

تدریس کے اصول

موثر تدریس

طریقہ تدریس

تدریس اسلامیات کے طریقے

۴۔ سمعی وبصری معاونات اور سوشل میڈیا

سمعی وبصری کی اہمیت

سوشل میڈیا کی اہمیت

سمعی وبصر کا استعمال

سوشل میڈیا کا استعمال

سوشل میڈیا کی اخلاقیات

۵۔ امتحان اور جائزہ

مقاصد واہمیت

جائزہ کے طریقے اور اقسام

اسلامیات اور سوال سازی

تفویض کار وغیرہ	25%
مڈٹرم ٹیسٹ	35%
فائنل ٹیسٹ	40%

Text Book(s):

ڈاکٹر عبدالرشید ارشد، تدریس اسلامیات، ملتان کاروان ادب

Further Readings:-

۱۔ مزمل احسن شیخ، تدریس اسلامیات، لاہور

۲۔ علامہ اقبال اوپن یونیورسٹی تدریس اسلامیات

۳۔ افضل حسین فن تعلیم وتربیت، لاہور، اسلامک پبلی کیشنز

۴- سید سلیمان ندوی — خطبات مدراس، اسلام آباد، نیشنل بک فاؤنڈیشن

۵- پروفیسر خورشید احمد، — اسلامی نظریہ حیات، کراچی یونیورسٹی، کراچی

۶- رشید احمد قاسمی — تدریس اسلامیات، گلوب پبلشرز، لاہور

۷- شبلی نعمانی، — سیرۃ النبی ﷺ، اسلام آباد، نیشنل فاؤنڈیشن

۸- ابن ہشام — سیرۃ النبی ﷺ، مکتبہ المعارف، بیروت

۹- صفی الرحمٰن — رحیق المختوم

۱۰- ابوالکلام آزاد — ارکان اسلام، مکتبہ جمال، تیسری منزل حسن مارکیٹ، اردو بازار، لاہور

۱۱- جلیل احسن ندوی، مولانا، — راہ عمل، اسلامک پبلی کیشنز، لاہور

۱۲- وحید الدین خان، مولانا، — دارالاشاعت، رحمان مارکیٹ، غزنی سٹریٹ، اردو بازار، لاہور

۱۳- ڈاکٹر عبدالحفیظ فاضلی، — مسلم فکر کی قرآنی جہالت، آسانیاں پبلی کیشنز

۱۴- احمد رفیق اختر، — احسن تقویم، سنگ میل پبلی کیشنز، لاہور

15. N.A., Baloch, Education Based on Islamic Values : Imperatives and Implication, Pakistan Study Centre Unviersity of Sindh, Allama I. I. Kazi Campus Jamshoro, Sindh, Pakistan

16. Robert L. Gulick, Jr. Muhammad The Educator, Institute of Islamic Culture Club Road, Lahore.

17. G.W. Ch., Islam and the Contremporary World, Indus Thamus Publisher Limited, London.

(iii)Area of Specialization Courses in Biology

TEACHING OF BIOLOGY

Course Code:EDUB351 **Credit Hours: 3**

Course Description

This course is designed specifically to equip the prospective science teachers with the latest pedagogical knowledge required to teach the contents of Biology at secondary level. Moreover, this course will also provide the prospective science teachers an association with utilization of laboratory, use of modern assessment techniques and incorporating computers in the field of teaching of Biology.

Learning Outcomes

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

1. Recognize the importance of teaching Biology.
2. Differentiate between method, technique and strategy in context of teaching.
3. Describe various methods for teaching of Biology.
4. Describe the pros and cons of using technology in the classroom and provide examples of how this new learning environment is changing science education.
5. Identify resources for enhancing teaching in the science education literature.
6. Demonstrate the use of low cost no cost materials for teaching of Biology.
7. Apply the computer technology for teaching of Biology.
8. Use the laboratory apparatus effectively for disseminating biological knowledge.
9. Identify most suitable method to teach diverse topics.

Contents

1. **Introduction**
   - 1.1 The Nature of science
   - 1.2 Definition of sciences: Science as product and process
   - 1.3 The products of science
   - 1.4 Processes of science
   - 1.5 Scientific attitudes
   - 1.6 The nature of scientific laws, facts, concepts and theories
   - 1.7 Physical sciences and limitations of science
   - 1.8 Definition of Biology
   - 1.9 Importance of Biology in everyday life
2. **Relationship of Biology with other Subjects**
   - 2.1 Importance of the relationship
   - 2.2 Relationship with Chemistry
   - 2.3 Relationship with Physics
   - 2.4 Relationship with Geography
   - 2.5 Relationship with Sociology
   - 2.6 Relationship with Mathematics
   - 2.7 Relationship with other related fields
3. **Aims and Learning Outcomes of Teaching Biology**
   - 3.1 Aims of teaching Biology
   - 3.2 Learning Outcomes of teaching biology
   - 3.3 Difference between aims and Learning Outcomes
   - 3.4 Formulation of Learning Outcomes
   - 3.5 Taxonomy of Educational Learning Outcomes

4. **Curriculum in Biological Sciences**
   - 4.1 Concept of Curriculum
   - 4.2 Historical Background of Biological Curriculum
   - 4.3Critical Analysis and Evaluation of the Biological Sciences Curriculum
5. **Methods of Teaching Biological Sciences**
   - 5.1 Introduction
   - 5.2 Various methods of teaching Biology
   - 5.3 Choice of Method
6. **The Nature of Children and Science Teaching**
   - 6.1 Piagetian theory of cognitive development
     - 6.1.1 Stages of cognitive development
     - 6.1.2 Characteristics of individual in various stages of cognitive development
     - 6.1.3 Piaget's theory and science curriculum
     - 6.1.4 Implications of Piagetian theory in facilitating learning of science
   - 6.2 The process of learning according to Robert Gagne, Davis Ausubel and Bruner
7. **Unit planning and Lesson Planning**
   - 7.1 Prerequisites of Good Planning
   - 7.2 Unit planning and lesson planning
8. **Biological Sciences Laboratory**
   - 9.1 Need and Significance of Laboratory work
   - 9.2 Planning and layout of Science Laboratory
   - 9.3 Administration of a laboratory
   - 9.4 Safety Measures in the Laboratory and First Aid Kits
   - 9.5 Improvised Apparatus
   - 9.6 Text books
9. **Teaching Skills**
   - 10.1Characteristics of the teaching Skills
   - 10.2Important teaching skills
10. **Evaluation in Biology**
    - 11.1Introduction
    - 11.2Designing of Test
    - 11.3Evaluation of skills
    - 11.4Evaluation of the Practical work
11. **Research In Biology Education**
12. **Teaching-learning Strategies**
13. The instructional strategies will focus on constructionist learning approach. These strategies will be diverse in line with the course contents. Therefore, these strategies will include but not limited to demonstration, cooperative learning, collaborative learning, teacher and student-led discussion, individual and group presentations, reflective practices and classroom activities.

Assessment and Examinations

The students will be assessed according to the following criteria.

Examination	Marks Distribution
Sessional work	25 %
Mid Semester	35%
Final Semester	40%

Suggested Readings

Ahmad, J. (2011). *Teaching of biological sciences (Intended for Teaching of Life Sciences, Physics, Chemistry and General Science)*. PHI Learning Pvt. Ltd.

Malhotra, V. (2007).*Methods of teaching biology.* New Delhi: Crescent Publishing Corporation.

Martin, R. E., Sexton, C. M., &Gerlovich, J. A. (2001). *Teaching science for all children.* Boston: Allyn and Bacon

Nilson, L. B. (2016). *Teaching at its best: A research-based resource for college instructors.* John Wiley & Sons.

Ramakrishna, A. (2012)*Methods of teaching life sciences.* Chennai: Pearson.

Reiss, M. (2011). *Teaching secondary biology.*London: Hodder Education.

INSTRUCTIONAL TECHNOLOGY FOR TEACHING OF BIOLOGY

Course Code: EDUB – 352 **Credit Hours: 3**

Course Description

The course "Instructional Technology for teaching of Biology" is designed to provide basic knowledge and understanding of the modern instructional technology used for teaching of Biology. Upon completing of this course the students should be able to select, use and use reliable and valid instructional technology. They should also be able to select the most appropriate instructional best suited for the topic. The students will become familiar with the professional as well as ethical issues in use of using instructional technology. The course will also provide an understanding of the basic terminology, methods, designs and models as they relate to the area of Biology Education. It develops awareness about the procedures and options available worldwide in Instructional Technology in professional pursuit.

Learning Outcomes

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

1. Understand the concept of instructional technology.
2. Recognize the importance of instructional technology in Biology Education.
3. Relate the use of instructional technology with various methods of teaching.
4. Know the modern instructional technologies being used worldwide.
5. Design instructional technology with the help of low cost no cost material.
6. Plan science lessons incorporating instructional aides and best teaching method.
7. Know the advantages and limitations of various instructional technologies.
8. Make effective use of computers in teaching Biology
9. Make effective use of laboratory apparatus in teaching concepts of Biology

Contents

1. Nature of Biology as a field of science

- 1.1 What is the nature of Biology?
- 1.2 Application of Scientific Method to study Biology
- 1.3 How do Biologists conduct research? Some classic work in field of Biology
- 1.4 Biology and the human welfare

2. Classroom Communication

- 2.1 What is teaching, learning and instruction?
- 2.2 Elements of classroom communication
- 2.3 Barriers to classroom communication

3. Instructional Aids or Teaching Aids

- 3.1 What are the Instructional or teaching Aids
- 3.2 Importance of teaching aids
- 3.3 Different types of teaching aid material
- 3.4 Principles for selection of teaching aids
- 3.5 Principles for using of teaching aids

4. Media in Teaching and Learning of Biology

- 4.1 Materials for visual communications: Bulletin Boards, Chalk Boards, Flannel Boards, etc.
- 4.2 Graphic Materials: Graphs, Charts, Cartoons, Maps and Globes
- 4.3 Still Pictures:
- 4.3.1 Opaque projector
- 4.3.2 Over-head projector and transparencies
- 4.3.3 Slide projector and film slides
- 4.3.4 Filmstrip projector and filmstrip

4.4 Audio-Materials, Radio and Tape-Recorder
4.5 Motion Pictures, Films and Video
4.6 Real things, Models and Demonstrations
4.7 Games, Simulations

4. Methods and Procedures in Individualized Teaching Strategies for Biology

4.1 Rationales and significant features
4.2 Methods of Individualization
4.3 Programmed Instruction
4.4 Computer Assisted Instruction and Computer Managed Instruction
4.5 Modular Instruction
4.6 Personalized System of Instruction
4.7 Individually Prescribed Instruction
4.8 Audio-tutorial Method

5. Designing Instruction in Biology

5.1 Designing Instructional Sequence
5.2 Model for Systematic Planning of Instruction
5.3 Steps in Instructional Planning
5.4 Designing Individual Lesson/unit Planning

6. Designing Conceptual Toolkit for teaching Biology

6.1 What is the significance of low cost no material in teaching
6.2 Types of low cost no material
6.3 Use of low cost no cost material
6.4 Concept of toolkit
6.5 Use of low cost no material in developing toolkit for different Biological Concepts

7. Use of modern Instructional Technology in teaching of Biology

7.1 Use of smart interactive white boards for teaching Biology
7.2 Use of LCD projector for teaching Biology
7.3 Creating blogs and websites for teaching Biology
7.4 Use of on line media for teaching Biology

8. Designing Instructional modules for teaching Biology

8.1 What is modular instruction?
8.2 Lesson planning for modular instruction for teaching Biology
8.3 Planning technology for modular instruction

Teaching-learning Strategies

The instructional strategies will focus on constructionist learning approach. These strategies will be diverse in line with the course contents. Therefore, these strategies will include but not limited to demonstration, cooperative learning, collaborative learning, teacher and student-led discussion, individual and group presentations, reflective practices and classroom activities.

Assessment and Examinations

The students will be assessed according to the following criteria.

Examination	Marks Distribution
Sessional work	25 %
Mid Semester	35%
Final Semester	40%

Suggested Readings

American Association for the Advancement of Science (AAAS) (1985). *Science Books and Films,* 20(5).

Ahmad, J. (2011). *Teaching of biological sciences (Intended for Teaching of Life Sciences, Physics, Chemistry and General Science).* PHI Learning Pvt. Ltd.

Alvermann, D. E., & Boothby, P. R. (1986). Children's transfer of graphic organizer instruction.*Reading Psychology, 7*(2), 87–100.

Anderson, L. W., Krathwohl, D. R., Airasian, P. W., Cruikshank, K. A., Mayer, R. E., Pintrich, P. R., et al. (Eds.). (2001). *A taxonomy for learning, teaching, and assessing: A revision of Bloom's taxonomy of educational Learning Outcomes.* New York: Longman.

Bybee, R. 1987. *Human ecology and teaching: New trends in biology teaching.* UNESCO; 5:145-155.

El-Nemr, M. A. (1980).Meta-analysis of outcomes of teaching biology as inquiry. *Dissertation Abstracts International, 40,* 5813A.

NSTA (National Science Teachers Association). 1987. *NCATE-Approved Curriculum Guidelines for Biology Teacher Education Programs.* Washington, D.C.: NSTA.

Malhotra, V. (2007).*Methods of teaching biology.* New Delhi: Crescent Publishing Corporation.

TRENDS & CONTEMPORARY ISSUES IN BIOLOGY EDCATION

Course Code: EDBESc353 **Credit Hours: 3**

Course Description

The broad purpose of this course is to develop students' knowledge, skills, and abilities as Biology educationist. In particular, this course aims to develop at high level of understanding and a critical analytic perspective across a diverse range of trends and issues in Biology Education by focusing on conceptual, theoretical and substantive research findings found in the academic research literature in the field.

Learning Outcomes

Upon completion of this course, the students:

1. Will develop knowledge and skills that enable the student to evaluate, critique, and ultimately contribute to the scholarly literature in Biology Education.
2. Should have improved their written and verbal communication and analytical skills and feel comfortable discussing theoretical and methodological issues in a scholarly manner.
3. Will gain an appreciation of the development of knowledge in a range of topic areas.
4. will learn about the institutions, systems, and practices found in academic as well as research process in Biology Education

Contents

1 Biology as a Discipline of Science
- 1.1 Scientific method of study in Biology.
- 1.2 Research approaches in field of Biology.
- 1.3 Biology in different periods and societies

2 Modern careers in Biology
- 2.1 Careers related to Zoology
- 2.2 Careers related to Botany
- 2.3 Integrated careers of Biology and other Science disciplines

3 Trends in research practices in Biology Education
- 3.1 Researches in classroom practices & Pedagogy
- 3.2 Curriculum interventions in school Biology
- 3.3 Assessment interventions in school Biology

4 Gender Disparity in Biology
- 4.1 Gender disparity in attitudes towards school Biology
- 4.2 Gender disparity in attitudes towards Biology related careers
- 4.3 Steps towards reducing gender disparity
- 4.4 Global statistics about trends towards Biology related fields
- 4.5 Regional statistics about trends towards Biology related fields

5 Population Education:
- 5.1 Concept of Population Education.
- 5.2 Factors affecting Population Education
- 5.3 Impact of Population Growth on National Development.
- 5.4 Roles and responsibilities of family, school, mosque and community in population education.
- 5.5 Steps towards population planning and welfare.

6 Environmental Awareness through Biology

6.1 Types of pollution
6.2 Causes of pollution
6.3 Environmental education
6.4 Role of Biology in reducing pollution

7 Curriculum innovations in Biology

7.1 BSCS Biological Sciences Curriculum Study
7.2 NSF Nuffield Science Foundation Curriculum
7.3 Challenges of quality curriculum in Biology
7.4 National Curriculum of Biology for Pakistan: Strengths and Limitations

8 ICT in Biology Education

8.1 New concept of information explosion
8.2 Expanding learning resources in Biology Classroom
8.3 Role of Information and communication technology (ICT) in Biology
8.4 Virtual Learning in Biology
8.5 Learning through simulations in Biology

Having studied these contents, the students will reflect over following trends and issues in specific context of Biology education

Issues in Biology Education

1. Biology contents and religious conflicts
2. Globalization of Biology education
3. Practical assessment in Biology education
4. One size fits all? Comparative effectiveness of various methodologies in teaching Biology
5. Problems of Biology education in Pakistan
6. Declining attitude of students towards Biology Education
7. Gender disparity in Biology Education
8. Regional disparity in Biology Education
9. Should Biology curriculum be diversified?
10. Medium of Instruction for Biology Education. An exploratory approach
11. Demands of 21st century and our Biology curriculum. An analytical approach
12. Our Biology textbooks: source of knowledge or source of misconceptions

Trends in Biology Education

13. Scientific literacy: goal of Biology education in 21st century
14. Trend in international Math and Scientific Studies (TIMSS): Introduction & Major findings in Biology domain
15. Program for International Students Assessment (PISA): Introduction & Major findings in Biology domain
16. Constructivism in Biology Education: Theoretical background
17. Constructivism in Biology Education: Practices in classroom and challenges
18. Constructivism in Biology Education: Assessment practices and challenges
19. Use of concept mapping technique in teaching Biology
20. Scientific Inquiry
21. Nature of Biology

22. The role of Biology education in environmental literacy
23. Biology, Technology , Society (STS) connections
24. Curricular reforms in Biology Education
25. ICT in Biology Education
26. Biology teacher recruitment standards: A comparative approach
27. Modern Assessment practices in Biology disciplines
28. Introduction to major research journals in Biology Education
29. Role of argumentation in Biology Education
30. Standards for 21st century Biology laboratory
31. Career opportunities with Biology Education
32. Biology education at higher education level: an introduction to degree programs offered in Biology Education round the world
33. Use of low cost no cost material in Biology Education
34. **Teaching-learning Strategies**
35. The instructional strategies will focus on constructionist learning approach. These strategies will be diverse in line with the course contents. Therefore, these strategies will include but not limited to demonstration, cooperative learning, collaborative learning, teacher and student-led discussion, individual and group presentations, reflective practices and classroom activities.

Assessment and Examinations

The students will be assessed according to the following criteria.

Examination	Marks Distribution
Sessional work	25 %
Mid Semester	35%
Final Semester	40%

Suggested Readings

AIOU (2006).*Population Education Course* MA EPM 584, Islamabad: AIOU.

Aubusson, P., & Watson, K. (2002).Packaging constructivist science teaching in a curriculum resource.*Asia Pacific Forum on Science Learning & Teaching* 3(2).

Biological Sciences Curriculum Study (BSCS). (2006). *BSCS Biology: A molecular approach.* Columbus, Ohio: Glencoe/McGraw-Hill.

Biological Sciences Curriculum Study (BSCS). (2008). *Scientists in Science Education: BSCS 1958 – 2008 Innovations, Reforms, Vision.* BSCS,Colorado Springs, CO.

Haltak, J. (1990). *Investing in the future, setting educational priorities in the developing world*, paris. UNESCO. McGraw-Hill Kogakusha.

Johnson, M.A., & Lawson, A.E. (1998). What are the relative effects of reasoning ability

and prior knowledge on biology achievement in expository and inquiry classes? *Journal of Research in Science Teaching, 35*(1), 89-103.

Ministry of Education, Curriculum Wing (2010), *13 Modules on Various Core Themes of Population Education*, Islamabad.

Government of Pakistan. (2003). *Education for All*, Ministry of Education Curriculum Wing Islamabad:Author.

Rao, V. K. (2004). *Population education.* New Delhi: Efficient Printers.

UNESCO, Pakistan (2004). *Quality of education in Pakistan*, UNESCO Office, Islamabad.

(III) Area of Specialization Courses in Chemistry

TEACHING OF CHEMISTRY

Course Code: EDBESc-356 **Credit Hours: 3**

Course Description

This course is designed specifically to equip the prospective science teachers with the latest pedagogical knowledge required to teach the contents of Chemistry at secondary level. In addition, the course will also provide the prospective science teachers an acquaintance with the modern assessment techniques and use of laboratory and computers in the field of teaching of Chemistry.

Learning Outcomes

At the end of the course, Students will be able to:

1. Differentiate between method, technique and strategy in context of teaching.
2. Describe various methods for teaching of chemistry.
3. Identify most suitable method to teach diverse topics.
4. Extend their knowledge of teaching to implement various methodologies.
5. Recognize the importance of teaching of chemistry.
6. Demonstrate the use of low cost no cost materials for teaching of chemistry.
7. Apply the computer technology for teaching of chemistry.
8. Use the laboratory apparatus effectively for disseminating chemical knowledge.

Contents

1. Teaching of chemistry
- 1.1 Introduction
- 1.2 The Nature of science
- 1.3 Scientific literacy and its importance
- 1.4 Definition of sciences: Science as product and process
- 1.5 The products of science
- 1.6 Processes of science
- 1.7 Scientific attitudes
- 1.8 The nature of scientific laws, facts, concepts and theories
- 1.9 Physical sciences and limitations of science
- 1.10 Definition of chemistry
- 1.11 Importance of chemistry in everyday life
- 1.12 Why teach chemistry

2. Aims and Learning Outcomes of teaching chemistry
- 2.1 Aims of teaching chemistry
- 2.2 Criteria for selection of aims
- 2.3 Learning Outcomes of teaching chemistry
- 2.4 Writing Learning Outcomes
- 2.5 Difference between aims and Learning Outcomes

3. Methods of teaching chemistry
- 3.1 Various methods of teaching chemistry
- 3.2 Lecture method
- 3.3 Demonstration method
- 3.4 Heuristic method
- 3.5 Assignment method
- 3.6 Project method
- 3.7 Inductive method
- 3.8 Deductive method
- 3.9 Scientific method

3.10 Problem method
3.11 Choice of method

4. The Nature of Children and Science Teaching
4.1 Piagetian theory of cognitive development
4.2 Stages of cognitive development
4.3 Characteristics of individual in various stages of cognitive development
4.4 Piaget's theory and science curriculum
4.5 Implications of Piagetian theory in facilitating learning of science
4.6 The process of learning according to Robert Gagne, David Ausubel and Bruner

5. Lesson Planning
5.1 Advantages of the Lesson Planning
5.2 Feature of a lesson plan
5.3 Steps in lesson plan

6. Teaching aids in chemistry
6.1 Importance of teaching aids
6.2 Principles for selection of teaching aids
6.3 Principles for effective use of teaching aids
6.4 Different types of teaching aid material

7. Apparatus and Equipment
7.1 Introduction
7.2 Locally produces low cost equipment
7.3 Chemicals
7.4 Charts, Diagrams, Pictures and Bulletin board
7.5 Improvised Apparatus
7.6 Text books

8. The Chemistry Teacher
8.1 Duties and Responsibilities of a Chemistry teacher
8.2 Effective use of Chemistry Laboratory
8.3 Making Chemistry teaching more Interesting

9. Evaluation in Chemistry
9.1 Introduction
9.2 Designing of Test
9.3 Evaluation of Functional skills
9.4 The Assessment of Practical work
9.5 Recent Trends in Teaching of Chemistry

Assessment and Examinations

The students will be assessed according to the following criteria.

Examination	Marks Distribution
Sessional work	25 %
Mid Semester	35%
Final Semester	40%

Suggested Readings

Barke, H., Hazari, A., &Yitbarek, S. (2010). *Misconceptions in chemistry: Addressing perceptions in chemical education.* Berlin: Springer.

Eilks, I., &Hofstein, A. (2013). *Teaching chemistry-- a study book: A practical guide and textbook for student teachers, teacher trainees and teachers*. Rotterdam: Sense Publishers.

Eilks, I., Byers, B., Royal Society of Chemistry (Great Britain), & European Chemistry Thematic Network.(2009). *Innovative methods of teaching and learning chemistry in higher education.* Cambridge, UK: RSC Publishing.

Gallagher-Bolos, J. A., &Smithenry, D. W. (2004).*Teaching inquiry-based chemistry: creating student-led scientific communities.* Portsmouth, NH: Heinemann

Niaz, M. (2008). *Teaching general chemistry*. New York: Nova Science Publishers.

Pauling, L. (2014). *General chemistry*. Newburyport: Dover Publications.

INSTRUCTIONAL TECHNOLOGY FOR TEACHING OF CHEMISTRY

Course Code: EDBESc357 **Credit Hours: 3**

Course Description

The course "Instructional Technology for teaching of Chemistry" is designed to provide basic knowledge and understanding of the modern instructional technology used for teaching of Chemistry. Upon completing of this course the students should be able to select, use and use reliable and valid instructional technology. They should also be able to select the most appropriate instructional best suited for the topic. The students will become familiar with the professional as well as ethical issues in use of using instructional technology. The course will also provide an understanding of the basic terminology, methods, designs and models as they relate to the area of Chemistry Education. It develops awareness about the procedures and options available worldwide in Instructional Technology in professional pursuit.

Learning Outcomes

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

1. Understand the concept of instructional technology.
2. Recognize the importance of instructional technology in Chemistry Education.
3. Relate the use of instructional technology with various methods of teaching.
4. Know the modern instructional technologies being used worldwide.
5. Design instructional technology with the help of low cost no cost material.
6. Plan science lessons incorporating instructional aides and best teaching method.
7. Know the advantages and limitations of various instructional technologies.
8. Make effective use of computers in teaching Chemistry
9. Make effective use of laboratory apparatus in teaching concepts of Chemistry

Contents

1. Nature of Chemistry as a field of science

- 1.1 What is the nature of Chemistry?
- 1.2 Application of Scientific Method to study Chemistry
- 1.3 How do Biologists conduct research? Some classic work in field of Chemistry
- 1.4 Chemistry and the human welfare

2. Classroom Communication

- 2.1 What is teaching, learning and instruction
- 2.2 Elements of classroom communication
- 2.3 Barriers to classroom communication

3. Instructional Aids or Teaching Aids

- 3.1 What are the Instructional or teaching Aids
- 3.2 Importance of teaching aids
- 3.3 Different types of teaching aid material
- 3.4 Principles for selection of teaching aids
- 3.5 Principles for using of teaching aids

3. Media in Teaching and Learning of Chemistry

- 3.1 Materials for visual communications: Bulletin Boards, Chalk Boards, Flannel Boards, etc.
- 3.2 Graphic Materials: Graphs, Charts, Cartoons, Maps and Globes
- 3.3 Still Pictures:
- 3.3.1 Opaque projector
- 3.3.2 Over-head projector and transparencies
- 3.3.3 Slide projector and film slides
- 3.3.4 Filmstrip projector and filmstrip

3.4 Audio-Materials, Radio and Tape-Recorder
3.5 Motion Pictures, Films and Video
3.6 Real things, Models and Demonstrations
3.7 Games, Simulations

4. Methods and Procedures in Individualized Teaching Strategies for Chemistry

4.1 Rationales and significant features
4.2 Methods of Individualization
4.3 Programmed Instruction
4.4 Computer Assisted Instruction and Computer Managed Instruction
4.5 Modular Instruction
4.6 Personalized System of Instruction
4.7 Individually Prescribed Instruction
4.8 Audio-tutorial Method

5. Designing Instruction in Chemistry

5.1 Designing Instructional Sequence
5.2 Model for Systematic Planning of Instruction
5.3 Steps in Instructional Planning
5.4 Designing Individual Lesson/unit Planning

6. Designing Conceptual Toolkit for teaching Chemistry

6.1 What is the significance of low cost no material in teaching
6.2 Types of low cost no material
6.3 Use of low cost no cost material
6.4 Concept of toolkit
6.5 Use of low cost no material in developing toolkit for different Chemical concepts

7. Use of modern Instructional Technology in teaching of Chemistry

7.1 Use of smart interactive white boards for teaching Chemistry
7.2 Use of LCD projector for teaching Chemistry
7.3 Creating blogs and websites for teaching Chemistry
7.4 Use of on line media for teaching Chemistry

8. Designing Instructional modules for teaching Chemistry

8.1 What is modular instruction?
8.2 Lesson planning for modular instruction for teaching Chemistry
8.3 Planning technology for modular instruction

Assessment and Examinations

The students will be assessed according to the following criteria.

Examination	Marks Distribution
Sessional work	25 %
Mid Semester	35%
Final Semester	40%

Suggested Readings

Bates, S.,& Galloway, R. (2013) Student-generated assessment. *Education in Chemistry*, *50*(1), 18–21.

Lancaster, S.,& Read, D. (2013). Flipping lectures and inverting classrooms. *Education in Chemistry*, *50*(5), 14-17.

Moore, E. B., Herzog, T. A.,& Perkins, K. K. (2013) Interactive simulations as implicit support for guided-inquiry. *Chemistry Education Research and Practice*, *14*(3), 257-268.

Read, D. & Lancaster, S. (2012) Unlocking video: 24/7 learning for the iPod generation. *Education in Chemistry*, *49*(4), 13–16.

Sweller, J. (2008). Human cognitive architecture. In J. M. Spector, M. D. Merrill, J. van Merriënboer, & M. P. Driscoll, (Eds.), Handbook of research on educational communications and technology (3rd ed)(pp. 369–381), New York, NY: Routledge..

Seery, M. (2012). Jump-starting lectures. *Education in Chemistry*, *49*(5), 22-25.

See: http://www.ramseymusallam.com/resources/Dissertation.musallam.pdf

Seery, M. K.,& Donnelly, R. (2012). The implementation of pre-lecture resources to reduce in-class cognitive load: A case study for higher education chemistry. *British Journal of Educational Technology*, *43*(4), 667–677.

Shwartz, Y., &Katchevitch, D. (2013). Using wiki to create a learning community for chemistry teacher leaders. *Chemistry Education Research and Practice*, *14*(3), 312-323.

Seery, M. K.,& Mc-Donnell, C. (2012). Designing and Evaluating Context and Problem Based Learning Resources, presented to the *Biennial Conference in Chemical Education*, Pennsylvania State (see http://www.rsc.org/learn-chemistry/resource/res00000932/faster-greener-chemistry)See: http://flippedclassroom.org/.

Bates, S.,& Galloway, R. (2013). Student-generated assessment. *Education in Chemistry*, *50*(1), 18–21.

Lancaster, S.,& Read, D. (2013). Flipping lectures and inverting classrooms. *Education in Chemistry*, *50*(5), 14-17.

Moore, E. B., Herzog, T. A.,& Perkins, K. K. (2013) Interactive simulations as implicit support for guided-inquiry. *Chemistry Education Research and Practice*, *14*(3), 257-268.

Read, D.,& Lancaster, S. (2012). Unlocking video: 24/7 learning for the iPod generation, *Education in Chemistry*, *49*(4), 13-16.

TRENDS & CONTEMPORARY ISSUES IN CHEMISTRY EDUCATION

Course Code: EDBESc358 **Credit Hours: 3**

Course Description

The broad purpose of this course is to develop students' knowledge, skills, and abilities as Chemistry educationist. In particular, this course aims to develop at high level of understanding and a critical analytic perspective across a diverse range of trends and issues in Chemistry Education by focusing on conceptual, theoretical and substantive research findings found in the academic research literature in the field.

Learning Outcomes Upon completion of this course, the students:

1. Will develop knowledge and skills that enable the student to evaluate, critique, and ultimately contribute to the scholarly literature in Chemistry Education.
2. Should have improved their written and verbal communication and analytical skills and feel comfortable discussing theoretical and methodological issues in a scholarly manner.
3. Will gain an appreciation of the development of knowledge in a range of topic areas.
4. will learn about the institutions, systems, and practices found in academic as well as research process in Chemistry Education

Contents

1. Chemistry as a Discipline of Science
- 1.1 Scientific method of study in Chemistry.
- 1.2 Research approaches in field of Chemistry.
- 1.3 Chemistry in different periods and societies

2. Modern careers in Chemistry
- 2.1 Careers related to organic Chemistry
- 2.2 Careers related to inorganic Chemistry
- 2.3 Careers related to Physical Chemistry
- 2.4 Integrated careers of Chemistry and other Science disciplines

3. Trends in research practices in Chemistry Education
- 3.1 Researches in classroom practices & Pedagogy
- 3.2 Curriculum interventions in school Chemistry
- 3.3 Assessment interventions in school Chemistry

4. Gender Disparity in Chemistry
- 4.1 Gender disparity in attitudes towards school Chemistry
- 4.2 Gender disparity in attitudes towards Chemistry related careers
- 4.3 Steps towards reducing gender disparity in Chemistry related careers
- 4.4 Global statistics about trends towards Chemistry related fields
- 4.5 Regional statistics about trends towards Chemistry related fields

5. Role of Chemistry in human welfare
- 5.1 Medicine.
- 5.2 House utilities & Life style
- 5.3 Climate Change
- 5.4 Industrial & economic development
- 5.5 Steps towards population planning and welfare.

6. **Environmental Awareness through Chemistry**
   6.1 Types of pollution
   6.2 Causes of pollution
   6.3 Environmental education
   6.4 Role of Chemistry in reducing pollution
7. **Curriculum innovations in Chemistry**
   7.1 Standards and benchmarks of a quality Chemistry Curriculum
   7.2 NSF Nuffield Science Foundation Curriculum
   7.3 Challenges of quality curriculum in Chemistry
   7.4 National Curriculum of Chemistry for Pakistan: Strengths and Limitations
8. **ICT in Chemistry Education**
   8.1 New concept of information explosion
   8.2 Expanding learning resources in Chemistry Classroom
   8.3 Role of Information and communication technology (ICT) in Chemistry
   8.4 Virtual Learning in Chemistry
   8.5 Learning through simulations in Chemistry

Having studied these contents, the students will reflect over following trends and issues in specific context of Chemistry education

Issues in Chemistry Education

1. Chemistry contents and religious conflicts
2. Globalization of Chemistry education
3. Practical assessment in Chemistry education
4. One size fits all? Comparative effectiveness of various methodologies in teaching Chemistry
5. Problems of Chemistry education in Pakistan
6. Declining attitude of students towards Chemistry Education
7. Gender disparity in Chemistry Education
8. Regional disparity in Chemistry Education
9. Should Chemistry curriculum be diversified?
10. Medium of Instruction for Chemistry Education. An exploratory approach
11. Demands of 21st century and our Chemistry curriculum. An analytical approach
12. Our Chemistry textbooks: source of knowledge or source of misconceptions

Trends in Chemistry Education

1. Scientific literacy: goal of Chemistry education in 21st century
2. Trend in international Math and Scientific Studies (TIMSS): Introduction & Major findings in Chemistry domain
3. Program for International Students Assessment (PISA): Introduction & Major findings in Chemistry domain
4. Constructivism in Chemistry Education: Theoretical background
5. Constructivism in Chemistry Education: Practices in classroom and challenges
6. Constructivism in Chemistry Education: Assessment practices and challenges
7. Use of concept mapping technique in teaching Chemistry
8. Scientific Inquiry
9. Nature of Chemistry

10. The role of Chemistry education in environmental literacy
11. Curricular reforms in Chemistry Education
12. ICT in Chemistry Education
13. Chemistry teacher recruitment standards: A comparative approach
14. Modern Assessment practices in Chemistry disciplines
15. Introduction to major research journals in Chemistry Education
16. Role of argumentation in Chemistry Education
17. Standards for 21st century Chemistry laboratory
18. Career opportunities with Chemistry Education
19. Chemistry education at higher education level: an introduction to degree programs offered in Chemistry Education round the world
20. Use of low cost no cost material in Chemistry Education

Teaching-learning Strategies

The instructional strategies will focus on constructionist learning approach. These strategies will be diverse in line with the course contents. Therefore, these strategies will include but not limited to demonstration, cooperative learning, collaborative learning, teacher and student-led discussion, individual and group presentations, reflective practices and classroom activities.

Assessment and Examinations

The students will be assessed according to the following criteria.

Examination	Marks Distribution
Sessional work	25 %
Mid Semester	35%
Final Semester	40%

Suggested Readings

Akar, E. (2005). Effectiveness of 5E learning cycle model on students' understanding of acid-base concepts. Available at http://etd.lib.metu.edu.tr/upload/12605747/index.pdf.

American Association for the Advancement of Science. (1990). *Science for all Americans:* Project 2061. NY: Oxford University Press.

Bennet, J. (2003).*Teaching and learning science: A guide to recent research and its applications.* New York: Continuum.

Childrens'Learning in Science Project (CLISP).(1987). *Approaches to teaching the particulate nature of matter.* Leeds: Centre for studies in Mathematics and Science Education.

Driver, R., Squires, A., Rushworth, P., & Wood – Robinson, V. (2005).*Making sense of secondary science: research into children's ideas.* London: Routledge Falmer.

Haltak, J. (1990). *Investing in the future, setting educational priorities in the developing world.* Paris, UNESCO. McGraw-Hill Kogakusha.

Jones, G.M.., & Carter, G. (2007). Science teacher attitudes and beliefs. In S.K. Abell,& N.G. Lederman (Eds.), *Handbook of research on science education.* Mahwah, NJ:Lawrence Erlbaum Associates.

Rao, V. K. (2004). *Population Education* .New Delhi: Efficient Offset Printers

UNESCO, Pakistan (2004). *Quality of education in Pakistan.* UNESCO Office, Islamabad.

(III) Area of Specialization Courses in Mathematics

TEACHING OF MATHEMATICS

Course Code: EDBESc-361 **Credit Hours: 3**

Course Description

This course is designed specifically to equip the prospective science teachers with the latest pedagogical knowledge required to teach the contents of Mathematics at secondary level. In addition, the course will also provide the prospective science teachers an acquaintance with the modern assessment techniques and use of modern equipment and computers in the field of teaching of Mathematics.

Learning Outcomes

At the end of the course, Students will be able to

1. Differentiate between method, technique and strategy in context of teaching.
2. Describe various methods for teaching of mathematics.
3. Identify most suitable method to teach diverse topics.
4. Extend their knowledge of teaching to implement various methodologies.
5. Recognize the importance of teaching of mathematics.
6. Demonstrate the use of low cost no cost materials for teaching of mathematics.
7. Apply the computer technology for teaching of mathematics.

Contents

1. Teaching of Mathematics
- 1.1 Introduction
- 1.2 Mathematical literacy and its importance
- 1.3 Physical sciences and limitations of science
- 1.4 Definition of Mathematics
- 1.5 Importance of Mathematics in everyday life
- 1.6 Why teach Mathematics?

2. Aims and Learning Outcomes of teaching Mathematics
- 2.1 Aims of teaching Mathematics
- 2.2 Criteria for selection of aims
- 2.3 Learning Outcomes of teaching Mathematics
- 2.4 Writing Learning Outcomes
- 2.5 Difference between aims and Learning Outcomes

3. Methods of teaching Mathematics
- 3.1 Various methods of teaching Mathematics
- 3.2 Lecture method
- 3.3 Project method
- 3.4 Inductive method
- 3.5 Deductive method
- 3.6 Scientific method
- 3.7 Problem solving method
- 3.8 Choice of best method

4. Lesson Planning
- 4.1 Advantages of the Lesson Planning
- 4.2 Feature of a lesson plan
- 4.3 Steps in lesson plan
- 4.4 Distinguishing features of mathematics lesson plan

5. Teaching aids in Mathematics
- 5.1 Importance of teaching aids
- 5.2 Principles for selection of teaching aids

5.3 Principles for effective use of teaching aids
5.4 Different types of teaching aid material
5.5 Charts, Diagrams, Pictures and Bulletin board
5.6 Improvised Apparatus
5.7 Text books

6. **The Mathematics Teacher**
   6.1 Duties and Responsibilities of a Mathematics teacher
   6.2 Effective use of Mathematics Laboratory
   6.3 Making Mathematics teaching more Interesting
7. **Evaluation in Mathematics**
   7.1 Introduction
   7.2 Designing of Test
   7.3 Evaluation of Functional skills
   7.4 The Assessment of Practical work
   7.5 Recent Trends in Teaching of Mathematics

Assessment and Examinations

The students will be assessed according to the following criteria.

Examination	Marks Distribution
Sessional work	25 %
Mid Semester	35%
Final Semester	40%

Suggested Readings

Bassercar, T. (2012).*Mathematics for elementary school teachers.* Belmont, CA: Brooks.

Donovan, S.,& Bransford, J.(2005). *How students learn: History, mathematics, and science in the classroom.* Washington DC: National Academies Press. Also available at ww.nap.edu/catalog.php? record_id=10126#toc

Haylock, D. (2010). *Mathematics explained for primary teachers.* CA: SAGE Publications.

Protheroe, N. (2007). What does good math instruction look like. Retrieved from http://www.naesp.org/resources/2/Princi pal/2007/S-Op51.pdf.

National Council of Teachers of Mathematics. (n.d). *Illuminations*. Retrieved from http://illuminations.nctm.org

New Zealand Ministry of Education.(2014). *Mathematics and statistics.* Retrieved from https://nzcurriculum.tki.org.nz/The-New-Zealand-Curriculum/Mathematics-and-statistics

University of Cambridge, NRICH. (2020). Enriching Mathematics. Retrieved from http://nrich.maths.org

Van de Walle J. A., Karp, K., & Williams, J. Bay. (2013). *Elementary and middle school mathematics: Teaching developmentally.* Boston: Pearson Education.

INSTRUCTIONAL TECHNOLOGY FOR TEACHING OF MATHEMATICS

Course Code: EDBESc362 **Credit Hours: 3**

Course Description

The course "Instructional Technology for teaching of Mathematics" is designed to provide basic knowledge and understanding of the modern instructional technology used for teaching of Mathematics. Upon completing of this course the students should be able to select, use and use reliable and valid instructional technology. They should also be able to select the most appropriate instructional best suited for the topic. The students will become familiar with the professional as well as ethical issues in use of using instructional technology. The course will also provide an understanding of the basic terminology, methods, designs and models as they relate to the area of Mathematics Education. It develops awareness about the procedures and options available worldwide in Instructional Technology in professional pursuit.

Learning Outcomes

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

1. Understand the concept of instructional technology.
2. Recognize the importance of instructional technology in Mathematics Education.
3. Relate the use of instructional technology with various methods of teaching.
4. Know the modern instructional technologies being used worldwide.
5. Design instructional technology with the help of low cost no cost material.
6. Plan science lessons incorporating instructional aides and best teaching method.
7. Know the advantages and limitations of various instructional technologies.
8. Make effective use of computers in teaching Mathematics
9. Make effective use of laboratory apparatus in teaching concepts of Mathematics

Contents

1. Nature of Mathematics as a field of science

1.1 What is the nature of Mathematics?
1.2 Application of Scientific Method to study Mathematics
1.3 How do Biologists conduct research? Some classic work in field of Mathematics
1.4 Mathematics and the human welfare

2. Classroom Communication

2.1 What is teaching, learning and instruction
2.2 Elements of classroom communication
2.3 Barriers to classroom communication

3. Instructional Aids or Teaching Aids

3.1 What are the Instructional or teaching Aids
3.2 Importance of teaching aids
3.3 Different types of teaching aid material
3.4 Principles for selection of teaching aids
3.5 Principles for using of teaching aids

3. Media in Teaching and Learning of Mathematics

3.1 Materials for visual communications: Bulletin Boards, Chalk Boards, Flannel Boards, etc.
3.2 Graphic Materials: Graphs, Charts, Cartoons, Maps and Globes
3.3 Still Pictures:
- 3.3.1 Opaque projector
- 3.3.2 Over-head projector and transparencies
- 3.3.3 Slide projector and film slides
- 3.3.4 Filmstrip projector and filmstrip

3.4 Audio-Materials, Radio and Tape-Recorder
3.5 Motion Pictures, Films and Video
3.6 Real things, Models and Demonstrations
3.7 Games, Simulations

4. Methods and Procedures in Individualized Teaching Strategies for Mathematics

4.1 Rationales and significant features
4.2 Methods of Individualization
4.3 Programmed Instruction
4.4 Computer Assisted Instruction and Computer Managed Instruction
4.5 Modular Instruction
4.6 Personalized System of Instruction
4.7 Individually Prescribed Instruction
4.8 Audio-tutorial Method

5. Designing Instruction in Mathematics

5.1 Designing Instructional Sequence
5.2 Model for Systematic Planning of Instruction
5.3 Steps in Instructional Planning
5.4 Designing Individual Lesson/unit Planning

6. Designing Conceptual Toolkit for teaching Mathematics

6.1 What is the significance of low cost no material in teaching
6.2 Types of low cost no material
6.3 Use of low cost no cost material
6.4 Concept of toolkit
6.5 Use of low cost no material in developing toolkit for different Mathematical concepts

7. Use of modern Instructional Technology in teaching of Mathematics

7.1 Use of smart interactive white boards for teaching Mathematics
7.2 Use of LCD projector for teaching Mathematics
7.3 Creating blogs and websites for teaching Mathematics
7.4 Use of on line media for teaching Mathematics

8. Designing Instructional modules for teaching Mathematics

8.1 What is modular instruction?
8.2 Lesson planning for modular instruction for teaching Mathematics
8.3 Planning technology for modular instruction

Assessment and Examinations

Students will be assessed according to the following criteria.

Examination	Marks Distribution
Sessional work	25 %
Mid Semester	35%
Final Semester	40%

Suggested Readings

Basserear, T. (2012).*Mathematics for Elementary School Teachers.* Belmont, CA: Brooks.

Donovan, S.,& Bransford, J.(2005). *How students learn: History, mathematics, and science in the classroom.* Washington DC: National Academies Press. Also available at ww.nap.edu/catalog.php? record_id=10126#toc

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Protheroe, N. (2007). What does good math instruction look like. Retrieved from http://www.naesp.org/resources/2/Princi pal/2007/S-Op51.pdf.

National Council of Teachers of Mathematics. (n.d). *Illuminations*. Retrieved from http://illuminations.nctm.org

New Zealand Ministry of Education. (2014). *Mathematics and statistics.* Retrieved from https://nzcurriculum.tki.org.nz/The-New-Zealand-Curriculum/Mathematics-and-statistics

University of Cambridge, NRICH. (2020). Enriching Mathematics. Retrieved from http://nrich.maths.org

Van de Walle J. A., Karp, K.,& Williams, J. Bay. (2013). *Elementary and middle school mathematics: Teaching developmentally.* Boston: Pearson Education.

TRENDS & CONTEMPORARY ISSUES IN MATHEMATICS EDUCATION

Course Code: EDBESc363 **Credit Hours: 3**

Course Description

Mathematics education has undergone many shifts and in recent century its importance has been enormously recognized. The rapidly changing environment, globalization, environmental changes and developments in the relevant fields demands rigorous changes in theory and practices of mathematics education and efforts to equip individuals with mathematics knowledge and mathematics skills to meet the challenges of twenty first century. This course gives an overview of the contemporary issues and trends in mathematics education: Mathematics curriculum, teaching and learning, assessment, use of technology, research, experiences, and reforms in mathematics education. This course will help to manage mathematics education according to Pakistani context, while keeping in view global trends.

Learning Outcomes of the Course:

On successful completion of this course, you should be able to:

1. Explain conditions creating a demand for change in mathematics education at elementary and secondary level
2. Analyze current status of elementary and secondary mathematics education of Pakistan
3. Debate on contemporary issues in mathematics education related to goals, curricular frameworks, content, instruction, assessment and experiences for mathematics education.
4. Make recommendations for possible solutions of current issues of mathematics education
5. Explain the new trends in mathematics curricula, pedagogy of mathematics, ways of mathematics learning and development & use of instructional materials towards mathematics education both at national & international level
6. Discuss Research related to learning, curriculum, instructional materials and instruction in mathematics education
7. Discuss current activities and reforms to bring changes in curriculum development & implementation, instructional materials and instruction for elementary and secondary mathematics education
8. Make judgments and recommendations for improvement of mathematics education in Pakistani context

CONTENTS

PART I: Conditions creating a demand for change

1. Environmental, social/cultural, technological and economic demands for change in mathematics education
2. Changing world and mathematics education

PART II: Current status of mathematics education in elementary and secondary schools

1. Achievements
2. Curriculum
3. Instructional materials and instruction
4. Assessments

PART III: Contemporary issues in mathematics education: goals, curricular frameworks, content, instruction, assessment and experiences form a thematics education at elementary and secondary level at both National & International level

1. Elementary and secondary school mathematics education frameworks
2. Educational Policies, commissions and associations and its implications for mathematics education in Pakistan
3. Issues related to curriculum development in Pakistan
4. Issues of content in mathematics education
5. Instructional issues in mathematics education
6. Assessment issues in mathematics education
7. Relationship of among mathematics, science, and technology
8. Gender, cultural and social issues in mathematics education
9. Cultural and language issues and their effect on mathematics education
10. Effect of gender, globalization and learners' attitudes on mathematics education
11. Current problems in mathematics education

PART IV: Research related to learning, curriculum, instructional materials and instruction in mathematics education

Research on:

1. Learning of mathematics
2. Mathematics curriculum
3. Instructional materials, instruction and mathematics classroom environment
4. Assessment and evaluation in mathematics
5. Mathematics teachers characteristics, behaviors and preparation

PART V: Contemporary trends in mathematics curriculum, instructional materials and instruction for elementary and secondary mathematics education

1. Curricular reforms in mathematics Education
2. Curriculum matters: looking back, looking forward
3. The current state of the school mathematics curriculum
4. Technology and the mathematics curriculum
5. Curriculum as a change agent
6. Mathematics for all: problems and implications
7. Goal of mathematics education in 21st century
8. Trend in international Math and Scientific Studies (TIMSS): Introduction & Major findings in mathematics domain
9. Program for International Students Assessment (PISA): Introduction & Major findings in mathematics domain
10. Constructivism in mathematics Education: Theoretical background
11. Constructivism in mathematics Education: Practices in classroom and challenges
12. Use of concept mapping technique in teaching mathematics

13. Scientific Inquiry in mathematics Education
14. Nature of mathematics
15. ICT in mathematics Education
16. Mathematics teacher recruitment standards: A comparative approach
17. Modern Assessment practices in mathematics disciplines
18. Career opportunities with mathematics Education
19. Mathematics education at higher education level: An introduction to degree programs offered in Mathematics Education round the world
20. Use of low cost no cost material in Mathematics Education
21. **Teaching-learning Strategies**
22. The instructional strategies will focus on constructionist learning approach. These strategies will be diverse in line with the course contents. Therefore, these strategies will include but not limited to demonstration, cooperative learning, collaborative learning, teacher and student-led discussion, individual and group presentations, reflective practices and classroom activities.

Assessment and Examinations

Students will be assessed according to the following criteria.

Examination	Marks Distribution
Sessional work	25 %
Mid Semester	35%
Final Semester	40%

Suggested Readings

Borwein, J. M., Bailey, D. H., &Girgensohn, R. (2004).*Experimentation in mathematics: Computational paths to discovery.* New York: CRC Press.

Ransaw, T. S., & Majors, R.(2017). *Emerging issues and trends in education.*Michigan: Michigan State University Press.

Reys, B. J., Reys, R. E., & Rubenstein, R. (2010).*Mathematics curriculum: Issues, trends, and future directions.*Reston, VA: National Council of Teachers of Mathematics.

Sylvester, C. (1994). *Feminist theory and international relation, in post-modern era.* NY: Cambridge University Press.

UNESCO, Pakistan (2004). *Quality of education in Pakistan.* UNESCO Office, Islamabad.

(III) Area of Specialization Courses in Physics

TEACHING OF PHYSICS

Course Code:EDBESc-366 **Credit Hours: 3**

Course Description

This course is designed specifically to equip the prospective science teachers with the latest pedagogical knowledge required to teach the contents of Physics at secondary level. In addition, the course will also provide the prospective science teachers an acquaintance with the modern assessment techniques and use of laboratory and computers in the field of teaching of Physics.

Learning Outcomes

At the end of the course, Students will be able to:

1. Differentiate between method, technique and strategy in context of teaching.
2. Describe various methods for teaching of Physics.
3. Identify most suitable method to teach diverse topics.
4. Extend their knowledge of teaching to implement various methodologies.
5. Recognize the importance of teaching of Physics.
6. Demonstrate the use of low cost no cost materials for teaching of Physics.
7. Apply the computer technology for teaching of Physics.
8. Use the laboratory apparatus effectively for disseminating physical knowledge.

Contents

1. Teaching of Physics

1.1 Introduction
1.2 The Nature of science
1.3 Scientific literacy and its importance
1.4 Definition of sciences: Science as product and process
1.5 The products of science
1.6 Processes of science
1.7 Scientific attitudes
1.8 The nature of scientific laws, facts, concepts and theories
1.9 Physical sciences and limitations of science
1.10 Definition of Physics
1.11 Importance of Physics in everyday life
1.12 Why teach Physics

2. Aims and Learning Outcomes of teaching Physics

2.1 Aims of teaching Physics
2.2 Criteria for selection of aims
2.3 Learning Outcomes of teaching Physics
2.4 Writing Learning Outcomes
2.5 Difference between aims and Learning Outcomes

3. Methods of teaching Physics

3.1 Various methods of teaching Physics
3.1.1 Lecture method
3.1.2 Demonstration method
3.1.3 Heuristic method
3.1.4 Assignment method
3.1.5 Project method
3.1.6 Inductive method
3.1.7 Deductive method
3.1.8 Scientific method
3.1.9 Problem Solving method

3.2 Choice of method

4. The Nature of Children and Science Teaching

4.1 Piagetian theory of cognitive development
4.2 Stages of cognitive development
4.3 Characteristics of individual in various stages of cognitive development
4.4 Piaget's theory and science curriculum
4.5 Implications of Piagetian theory in facilitating learning of science
4.6 The process of learning according to Robert Gagne, David Ausubel and Bruner

5. Lesson Planning

5.1 Advantages of the Lesson Planning
5.2 Feature of a lesson plan
5.3 Steps in lesson plan

6. Teaching aids in Physics

6.1 Importance of teaching aids
6.2 Principles for selection of teaching aids
6.3 Principles for effective use of teaching aids
6.4 Different types of teaching aid material

8. Apparatus and Equipment

8.1 Introduction
8.2 Locally produces low cost equipment
8.3 Chemicals
8.4 Charts, Diagrams, Pictures and Bulletin board
8.5 Improvised Apparatus
8.6 Text books

9. The Physics Teacher

9.1 Duties and Responsibilities of a Physics teacher
9.2 Effective use of Physics Laboratory
9.3 Making Physics teaching more interesting

10. Evaluation in Physics

10.1 Introduction
10.2 Designing of Test
10.3 Evaluation of Functional skills
10.4 The Assessment of Practical work
10.5 Recent Trends in Teaching of Physics

Assessment and Examinations

The students will be assessed according to the following criteria.

Examination	Marks Distribution
Sessional work	25 %
Mid Semester	35%
Final Semester	40%

Suggested Readings

Bishop, K., &Denley, P. (2007).*Learning science teaching.* Maidenhead, England: McGraw Hill/Open University Press

Martin, R. E., Sexton, C. M., & Gerlovich, J. A. (2001). *Teaching science for all children.* Boston: Allyn and Bacon

Nayak, A. K. (2008). *Teaching of physics.* New Delhi, India: A P H Publishing Corporation

Nilson, L. B. (2016). *Teaching at its best: A research-based resource for college instructors.* John Wiley & Sons.

Olugbenga, A. F. (2011*). Physics pedagogy: A study of methods for improving the teaching of physics to a group of slow learning students.* Saarbrücken: LAP Lambert.

Toplis, R. (2015). *Learning to teach science in the secondary school: A companion to school experience* (4th ed.). NY: Routledge.

Wellington, J. J., Ireson, G., & Wellington, J. J. (2008). *Science learning, science teaching.* London: Routledge.

INSTRUCTIONAL TECHNOLOGY FOR TEACHING OF PHYSICS

Course Code: EDBESc367 **Credit Hours: 3**

Course Description

The course "Instructional Technology for teaching of Physics" is designed to provide basic knowledge and understanding of the modern instructional technology used for teaching of Physics. Upon completing of this course the students should be able to select, use and use reliable and valid instructional technology. They should also be able to select the most appropriate instructional best suited for the topic. The students will become familiar with the professional as well as ethical issues in use of using instructional technology. The course will also provide an understanding of the basic terminology, methods, designs and models as they relate to the area of Physics Education. It develops awareness about the procedures and options available worldwide in Instructional Technology in professional pursuit.

Learning Outcomes

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

1. Understand the concept of instructional technology.
2. Recognize the importance of instructional technology in Physics Education.
3. Relate the use of instructional technology with various methods of teaching.
4. Know the modern instructional technologies being used worldwide.
5. Design instructional technology with the help of low cost no cost material.
6. Plan science lessons incorporating instructional aides and best teaching method.
7. Know the advantages and limitations of various instructional technologies.
8. Make effective use of computers in teaching Physics
9. Make effective use of laboratory apparatus in teaching concepts of Physics

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1. **Nature of Physics as a field of science**
   - 1.1 What is the nature of Physics?
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   - 1.3 How do Biologists conduct research? Some classic work in field of Physics
   - 1.4 Physics and the human welfare
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   - 2.1 What is teaching, learning and instruction?
   - 2.2 Elements of classroom communication
   - 2.3 Barriers to classroom communication
3. **Instructional Aids or Teaching Aids**
   - 3.1 What are the Instructional or teaching Aids
   - 3.2 Importance of teaching aids
   - 3.3 Different types of teaching aid material
   - 3.4 Principles for selection of teaching aids
   - 3.5 Principles for using of teaching aids
3. **Media in Teaching and Learning of Physics**
   - 3.1 Materials for visual communications: Bulletin Boards, Chalk Boards, Flannel Boards, etc.
   - 3.2 Graphic Materials: Graphs, Charts, Cartoons, Maps and Globes
   - 3.3 Still Pictures:
   - 3.3.1 Opaque projector
   - 3.3.2 Over-head projector and transparencies
   - 3.3.3 Slide projector and film slides
   - 3.3 Filmstrip projector and filmstrip
   - 3.4 Audio-Materials, Radio and Tape-Recorder

3.5 Motion Pictures, Films and Video
3.6 Real things, Models and Demonstrations
3.7 Games, Simulations

4. Methods and Procedures in Individualized Teaching Strategies for Physics
4.1 Rationales and significant features
4.2 Methods of Individualization
4.3 Programmed Instruction
4.4 Computer Assisted Instruction and Computer Managed Instruction
4.5 Modular Instruction
4.6 Personalized System of Instruction
4.7 Individually Prescribed Instruction
4.8 Audio-tutorial Method

5. Designing Instruction in Physics
5.1 Designing Instructional Sequence
5.2 Model for Systematic Planning of Instruction
5.3 Steps in Instructional Planning
5.4 Designing Individual Lesson/unit Planning

6. Designing Conceptual Toolkit for teaching Physics
6.1 What is the significance of low cost no material in teaching
6.2 Types of low cost no material
6.3 Use of low cost no cost material
6.4 Concept of toolkit
6.5 Use of low cost no material in developing toolkit for different Physics concepts

7. Use of modern Instructional Technology in teaching of Physics
7.1 Use of smart interactive white boards for teaching Physics
7.2 Use of LCD projector for teaching Physics
7.3 Creating blogs and websites for teaching Physics
7.4 Use of on line media for teaching Physics

8. Designing Instructional modules for teaching Physics
8.1 What is modular instruction?
8.2 Lesson planning for modular instruction for teaching Physics
8.3 Planning technology for modular instruction

Teaching-learning Strategies

The instructional strategies will focus on constructionist learning approach. These strategies will be diverse in line with the course contents. Therefore, these strategies will include but not limited to demonstration, cooperative learning, collaborative learning, teacher and student-led discussion, individual and group presentations, reflective practices and classroom activities.

Assessment and Examinations

The students will be assessed according to the following criteria.

Examination	Marks Distribution
Sessional work	25 %
Mid Semester	35%
Final Semester	40%

Suggested Readings

Bishop, K., & Denley, P. (2007).*Learning science teaching*. Maidenhead, England: McGraw Hill/Open University Press

Martin, R. E., Sexton, C. M., & Gerlovich, J. A. (2001). *Teaching science for all children.* Boston: Allyn and Bacon

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Toplis, R. (2015). *Learning to teach science in the secondary school: A companion to school experience* (4th ed.). NY: Routledge.

TRENDS & CONTEMPORARY ISSUES IN PHYSICS EDUCATION

Course Code: EDBESc368 **Credit Hours: 3**

Course Description

The broad purpose of this course is to develop students' knowledge, skills, and abilities as physics educationist. In particular, this course aims to develop at high level of understanding and a critical analytic perspective across a diverse range of trends and issues in Physics Education by focusing on conceptual, theoretical and substantive research findings found in the academic research literature in the field.

Learning Outcomes Upon completion of this course, the students:

1. Will develop knowledge and skills that enable the student to evaluate, critique, and ultimately contribute to the scholarly literature in Physics Education.
2. Should have improved their written and verbal communication and analytical skills and feel comfortable discussing theoretical and methodological issues in a scholarly manner.
3. Will gain an appreciation of the development of knowledge in range of topic areas.
4. Will learn about the institutions, systems, and practices found in academic as well as research process in Physics Education.

Contents

Issues in Physics Education

1. Physics contents and religious conflicts
2. Globalization of physics education
3. Practical assessment in physics education
4. Comparative analysis of various methodologies in teaching physics
5. Problems of physics teaching in Pakistan
6. Physics teacher education in Pakistan
7. Students attitude towards Physics Education
8. Gender disparity in Physics Education
9. Regional disparity in Physics Education
10. Should physics curriculum be diversified?
11. Medium of Instruction for Physics Education. An exploratory approach
12. Demands of 21st century and our physics curriculum. An analytical approach
13. Our physics textbooks: source of knowledge or source of misconceptions

Trends in Physics Education

1. Goal of Physics education in 21st century
2. Trend in international Math and Scientific Studies (TIMSS): Introduction & Major findings in Physics domain
3. Program for International Students Assessment (PISA): Introduction & Major findings in Physics domain
4. Constructivism in Physics Education: Theoretical background
5. Constructivism in Physics Education: Practices in classroom and challenges
6. Use of concept mapping technique in teaching Physics
7. Scientific Inquiry in Physics Education
8. Nature of Physics

9. The role of physics education in environmental literacy
10. Curricular reforms in Physics Education
11. ICT in Physics Education
12. Physics teacher recruitment standards: A comparative approach
13. Modern Assessment practices in physics disciplines
14. Introduction to major research journals in Physics Education
15. Role of argumentation in physics Education
16. Standards for 21st century physics laboratory
17. Career opportunities with Physics Education
18. Physics education at higher education level: an introduction to degree programs offered in Physics Education round the world
19. Use of low cost no cost material in Physics Education
20. **Teaching-learning Strategies**
21. The instructional strategies will focus on constructionist learning approach. These strategies will be diverse in line with the course contents. Therefore, these strategies will include but not limited to demonstration, cooperative learning, collaborative learning, teacher and student-led discussion, individual and group presentations, reflective practices and classroom activities.

Assessment and Examinations

The students will be assessed according to the following criteria.

Examination	Marks Distribution
Sessional work	25 %
Mid Semester	35%
Final Semester	40%

Suggested Readings

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(III) Area of Specialization Courses in Geography

METHODS FOR TEACHING OF GEOGRAPHY

Course Code:EDBES351 **Credit hours:3**

Introduction

Geography studies the earth in relation to mankind. Man's life is mostly shaped by the environment in which he lives and Geography studies the relation between the earth and man. According to Macnee, "Geography is the study of earth as the home or in other words, Geography is the study of environment of man, physical and social, particularly with relation to human activities." Geography has been derived from the words, 'geo' and 'graphy'. 'Geo' means earth and 'graphy' means 'study' or 'description'.So, Geography means description of earth. Geography studies all the three aspects of earth, viz. lithosphere, hydrosphere and atmosphere.

Geography is related to other social sciences and we can study them better with a background of Geography. Geography is related to economic progress. Geographical factors influence agriculture, industry, trade, commerce and other aspects of economic development. Knowledge of Geography is essential for business, trade, commerce, agriculture, industry, navigation, military operation, and spacecraft and even for balancing and administration. Thus, Geography influences the economic, social and cultural life of a nation. Knowledge of Geography is essential for successful living. Because of its practicable intellectual, cultural and economic value, Geography has assumed a unique place in the school curriculum.

Learning Outcomes:

1. To acquaint the pupils with the living conditions of men in different parts of the globe.
2. To enable the pupils to acquire a knowledge of natural resources.
3. To develop in pupils an understanding of how environment and climatic factors have influenced our life.
4. To help the pupils to acquire knowledge of their physical and social environment and thus to broaden their outlook.
5. To develop in them an understanding of basic concepts, principles and theories relating to geographical phenomena.
6. To train the pupils in nature study.
7. To develop the power of thinking, reasoning, memory and power of imagination of pupils.
8. To develop their ability to draw conclusions and to generalize.

9. To develop a love for nation and to develop cosmopolitan and internationalist outlook.

10. To develop the creative talents of pupils and to develop an attitude of discovery in them.

11. To develop the skills of reading maps and globes, to develop drawing and measuring skills, and to develop the skill of using and manipulating geographical instruments.

12. To enable the pupils to appreciate the natural beauty and other physical forces.

13. To help the pupils to acquire economic efficiency and lead a successful life.

14. To adjust human life in accordance with geographical circumstances.

15. To develop scientific attitude and to develop the ability to draw valid conclusions and independent thinking.

Contents

1. Basic principles of teaching geography

1.1 Teaching geography and learning theories (the Pedagogical and Psychological aspects of Geographical education)

1.2 Teaching geography strands and themes and school geography (the aims and Learning Outcomes of school geography)

2. Curriculum and content in Geography.

2.1 Scope and structure of the course.

2.2 Analysis and understanding of the features, requirement outcomes and standards of the Australian Curriculum Geography and its application in Queensland.

3. Inquiry sequence and lesson planning in Geography.

3.1 Inquiry learning in junior secondary Geography.

3.2 Lesson planning, strategies and approaches to the teaching of Geography in secondary school contexts.

3.2 Evaluating planning documents.

3.4 Cross-curricular priorities and general capabilities in the contexts of geography

4. Assessment, feedback and reporting in Geography.

4.1 Connecting geographical inquiry with lesson sequence planning and assessment.

4.2 Assessment strategies for geography and requirements for assessments in the Australian Curriculum and Queensland context.

4.3 Formative and summative assessment methods.

4.4 Geographical concepts and principles.

4.5 Connections to recording and reporting in junior secondary.

4.6 Peer review of task 1.

5. Inquiry in junior secondary geography and differentiating teaching to meet the specific learning needs of students in Geography.

5.1 Exploring the range of spatial technologies and their application within the Geography inquiry sequence.

5.2 Exploring field work and application in inquiry sequences.

5.3 Use of ICTs in junior secondary geography.

5.4 Explicit teaching of literacy and numeracy.

6. Evaluation of teaching, supporting the achievement of student learning outcomes, moderation and reporting, data use and integration with planning.

6.1 Cross-Curricular Priorities and General Capabilities in the contexts of Geography Considering practical approaches and strategies for linking and matching these with Geography content requirements.

6.2 Geographical concepts and principles.

6.3 Lesson segment presentations and discussions following presentations

7. Examination in class lecture or tutorial time.

Assessment and Examinations

Examination	Marks
Sessional Work	25%
Mid-Semester	35%
Final Semester	40%

Suggested Readings

Butt, Gr. (Ed). (2011). *Geography, education and the future*. London: Bloomsbury.

Labrinos, N. (2009). *About teaching geography in school*. Graphema, Thessaloniki.

Lambert, D., & Balderstone, D. (2010). *Learning to teach geography in the secondary school a companion to school experience* (2nd ed.). London: Routledge Katsikis, A. (2004). *Inter-disciplinary geography*. Athens: Typothito

Lidstone, J., & Williams, M. (Eds.). (2006). *Geographical education in a changing world: Past experience, current trends and future challenges*. Netherlands: Springer.

Katsikis, A. (1999). *Teaching geography epistemological approach, geographical knowledge documentation*. Athens: Typothito

Klonari, Aik. (2007). Geography Education and Geography Teaching in Greece. In Terkenli, Th., Iosifidis, Th. & Chorianopoulos, I. *Human Geography man and Society and Space(pp. 444-465)*. Athens: Kritik.

Wiegand, P. (2006). *Learning and teaching with maps*. New York: Routledge.

Gersmehl, P. (2005). *Teaching geography*. New York: The Guilford Press.

Related academic journals:

International Research in Geographical and Environmental Education (http://www.tandfonline.com/loi/rgee20)

European Journal of Geography (http://www.eurogeographyjournal.eu/)

Review of International Geographical Education Online (RIGEO) (http://rigeo.org/)

The Geography Teacher (http://www.tandfonline.com/loi/rget20) Journal of Geographical Sciences (https://link.springer.com/journal/11442)

Journal of Geography (http://www tandfonline.com/toc/rjog20/current)

Journal of Geography in Higher Education (http://www.tandfonline.com/loi/cjgh20)

Journal of Environmental Geography (https://www.degruyter.com/view/j/jengeo)

The Geographical Journal (http://onlinelibrary.wiley.com/journal/10.1111/(ISSN)1475-4959)

International Journal of Geographical Information Science (http://www.tandfonline.com/loi/tgis20)

INSTRUCTIONAL TECHNOLOGY FOR TEACHING OF GEOGRAPHY

Course Code:EDBES352 **Credit hours:3**

Course Description

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

This three-credit course has been designed to enable Student Teachers to teach English using an interactive, communicative approach. The course aims to be comprehensive in its coverage and depth so that, upon its completion, Student Teachers will have gained both a theoretical understanding of the basic principles of second-language acquisition and the practical knowledge of how to apply these principles effectively in the language classroom for effective instructions. The course focuses on ways to teach young learners the four language skills—listening, reading, speaking, and writing—to enable them to reach a basic level of communicative competence in both spoken and written English. In addition to learning how to teach and integrate the four skills in an interactive, learner-centred manner, Student Teachers will gain an understanding of how grammar lessons and vocabulary acquisition can be incorporated into a communicative teaching approach. Finally, they will learn how to design and develop their own teaching materials and activities and how to assess and test their students' language proficiency and progress.

Course Outcomes

Upon completing the course, Student Teachers will be able to:

1. To identify the basics of educational of instructional technology in teaching geography.
2. Identify considerations that ensure optimum utility of teaching of learning technologies in teach Geography
3. To support to use the system approach to design suitable teaching materials which focus on helping learners acquire a basic level of Geographical competence
4. To point out the different aspects of educational technology to assess their students' Geographical knowledge and progress using their own self-designed assessment procedures.
5. To design a cast effective media of media selection rules to explain in basic terms how Geographical knowledge use through teaching
6. Construct lesson plan employing media for a subsection of a class to figure out the most important and modern technologies of time

Contents

Teaching-learning Strategies

The instructional strategies will focus on constructionist learning approach. These

strategies will be diverse in line with the course contents. Therefore, these strategies will include but not limited to demonstration, cooperative learning, collaborative learning, teacher and student-led discussion, individual and group presentations, reflective practices and classroom activities.

Assessment and Examinations

Examination	Marks
Sessional Work	25%
Mid-Semester	35%
Final Semester	40%

Suggested Readings

Khosla, D.N. (2005).*Report on evaluation for quality Secondary teacher education.* New Delhi: NCTE.

Sharma, J.J. (2004). Pre-practice basis to vitalize practice teaching.*University News,42*(17),

_____.

Singh, R.P. (1998). Teacher Education: What needs to be done? *University News, 36*(22),

_____.

Sharma, A.P. (1993).Teaching practice: a farce or reality .*University News*, Retrieved from: http//www.academic.edu/808553/scheme of lesson a perquisite to vitalize practice teaching/Tapan Sahoo academic.edu

Basha, S.A., *Methods of Teaching Geography*, New Delhi:Discovery Publishing House

Dhand, H., (1990) *Techniques of TeachinG.* New Delhi: Anish Publishing House,

Kochhar, S.S., (1999) *Teaching of Social Studies*.New Delhi:Sterling Publishing House

Mangal & Mangal,(2012) *Essentials of Educational Technology.* New Delhi: PNI Private Limited

Websites

https://archive.org/stream/valueofaudiovisu00whit/valueofaudiovisu00whit_djvu.txt
WWW.atlapedia.com
http://www.edb.gov.hk/en/curriculum-development/resource-support/textbookinfo/GuidingPrinciples/index.html
http://cd1.edb.hkedcity.net/cd/cns/sscg_web/html/english/main06.html
http://encyclopedia2.thefreedictionary.com/Instructional+Materials
http://www.geography.org.uk/gtip/thinkpieces/usingmapsatlases/
http://www.gistarea.com/instructional-materials-teaching-examples-importance/
http://www.hartnell.edu/library/LIB5/print_Suggested Readings.htm
http://www.home-school-curriculum.com/content/using-atlases-and-almanacs
http://www.ijsre.com/Vol,%201_1_-Ogbondah.pdf
http://www.oiirj.org/ejournal/apr-may-june2012/13.pdf
http://www.preservearticles.com/201105216958/uses-of-globes-in-teaching-geography.html
http://www.publishyourarticles.net/knowledge-hub/geography/the-importance-of-text-booksin-teaching-of-geography.html

TRENDS AND CONTEMPORARY ISSUES IN GEOGRAPHY

Course Code:EDBES353 **Credit hours:3**

Introduction

Geography is the study of places and the relationships between people and their environments. Geographers explore both the physical properties of Earth's surface and the human societies spread across it. They also examine how human culture interacts with the natural environment and the way that location and places can have an impact on people. Geography seeks to understand where things are found, why they are there, and how they develop and change over time.This course deals with contemporary issues in the field of Geography. The key issues have implications for educational practices and are organized around four areas including development, learning and instruction motivation and classroom management. The issues are presented in a pros and cons format with an overview and question preceding each issues.

Learning Outcomes:

This course focuses on the physical and human environment of Pakistan, its interaction and impact of interaction on both the land and the people. An important part of the course focuses on the actions that people can take to protect and conserve the environment.

Contents

1. Absolute and relative location area, international boundaries and administrative units of Pakistan Landforms
2. Drainage system
3. Soil: Types and Productivity
4. Weather & climate: Temperature and rainfall conditions, Climatic regions
5. Water resources: surface water and ground water resources – their distribution and quality.
6. Growth and distribution of Population and problems associated with high growth rate.
7. Agriculture: Rainfall and irrigated agriculture.
8. Irrigation system:- Types of irrigation, brief history &development of canal irrigation system. Natural and human factors controlling land productivity.
9. Important crops and their distribution
10. Mineral Resources:- Metallic and non-metallic Minerals (Excluding fossil fuels)
11. Industries: Factors controlling the location of industries. Major industries.
12. Relationship of the geography of Pakistan with its history, cultural diversity, economy, population, and settlement distribution regional variations in developments, and international politics.

Assessment and Examinations

The students will be assessed according to the following criteria

Examination	Marks Distribution
Sessional Work	25%
Mid-Semester	35%
Final Semester	40%

Suggested Readings

Fazal-e-Karim. (2003), *Pakistan: Geography, Economy and People*, Karachi: Oxford UniversityPress.

Ahmad, Nazir, (1993). *Water Resources of Pakistan and their Utilization*, Lahore:privately printed

Kemal, A. R. Mohammad Irfan and Naushin Mahmud (eds.), (2003).*Population ofPakistan: An analysis of 1998 Population and Housing census.* PakistanInstitute of Development Economic,.

AhsanUllah and Hussain Ahmad, (1997).Spatial Pattern of Concentration andDispersion of Manufacturing Industries in *Pakistan Journal Geographic1(*1),

Mahmood, Mir Anis.(2007). , *Energy Issues in Pakistan, Readings inEconomics* 1, Islamabad: Pakistan Institute of Development Economics.

Khan,F. K., (1991). *A Geography of Pakistan: Environment, People and Economy* . Karachi: Oxford University Press.

Khan, H. (2001).*Constitutional and Political History of Pakistan.* Karachi: Oxford University Press.

Malik H. and Gankovsky ,Y. V. (eds.), (2006). *The Encyclopedia of Pakistan.* Karachi: Oxford University Press.

Rabbani, M. I., (2003).*Introduction to Pakistan Studies* (revised edition). Lahore: Caravan Book House.

(III)Area of Specialization Courses in Physical Education

TEACHING OF PHYSICAL EDUCATION

Course Code:EDBES356 **Credit hours:3**

LEARNING OUTCOMES

This course is designed to acquaint students with the Learning Outcomes to make them understand the basic concepts of physical education and its relation to Health Education, and provide preliminary awareness about physical, mental and social developments. This course will provide students with the knowledge, skills and abilities necessary to integrate healthy living strategies in a variety of recreational settings. A diversity of recreation and fitness initiatives will be explored through self-driven and planned activities. This course will provide opportunities to familiarize students with the importance of Fitness for general purpose and for sports. It will help to a common person to care about his/her health and fitness. This course will provide a variety of activities which will motivate the students and increase participation. This program will teach the students to establish lifelong fitness goals. This course will help to demonstrate understanding of physical education content and disciplinary concepts related to the development of a physically educated person.

LEARNING OUTCOMES:

1. Students actively engage in class activities and devise appropriate training programs for the sport activities.
2. Students also assess fitness levels and devise appropriate fitness plans.
3. It will benefit to maintain good health in students
4. It will help students to cooperate with each other in sense of Communication, Fair play, Leadership and Team work
5. It will promote self- discipline in students
6. Help to implement developmentally appropriate units of instruction in physical education
7. Facilitate to plan developmentally appropriate physical education lessons.
8. Help to plan developmentally appropriate units of instruction in physical education.
9. Assist to attain and maintain physical fitness and overall wellness.
10. Apply academic concepts of the professional discipline to promote healthy lifestyles through physical activity, fitness, wellness, and sports
11. Apply principles, analytical methods, and best practices for designing, implementing, and evaluating health promoting activity and programs.
12. Demonstrate personal behaviours that exemplify professionalism.

CONTENTSS

8. PHYSICAL FITNESS IN OUR LIFE

8.1 Health Related Fitness (Need, significance& Improvement)
8.2 Skill Related Fitness (Need, significance& Improvement)
8.3 Training Principles (Need, significance& Improvement)
8.4 Various methods of training (Need, significance& Improvement)

9. LEADERSHIP IN PHYSICAL EDUCATION

9.1 Definition and types of leadership
9.2 Selection criteria of leader
9.3 Qualities of a good leader
9.4 Challenges in Physical Education profession

Assessment and Examinations

The students will be assessed according to the following criteria

Examination	Marks Distribution
Sessional Work	25%
Mid-Semester	35%
Final Semester	40%

Suggested Readings

Almond, L. (Ed.). (2014). *Physical education in schools*. London: Routledge.

Charles A. B. (2003). *Foundation of PH. Ed. Exercise Sc.And Sports*. 14th edition l. New York: McGraw Hill

Corbin C.B., Welk, G.J., Corbin, W.R., & Welk, K.A. (2016). *Concepts of fitness and wellness: A comprehensive lifestyle approach*. New York, NY: McGraw-Hill Education.

Dayl Siedentop. (2001).*Introduction to Physical Education Fitness Sport*, 5th ed. New York: McGraw Hill

Hoeger, W. W.,&Hoeger, S. A. (2014). *Fitness and wellness*. Boston: Cengage Learning.

Hoeger, W. W., &Hoeger, S. A. (2014). *Lifetime physical fitness and wellness: A personalized program*. New York: Cengage Learning.

Hoeger, W. A. & Hoeger, S. A. (2015).*Principles and labs for fitness and wellness*. Wadsworth: Cengage Learning.

Jay Coackley, (2007).*Sports in Society. Issue & Controversies*. New York: McGraw Hill.

Safrit, M. J. &Wood, T. M. (2007). *Introduction to Measurement in PE and Exercise Science(3rd ed)*.Philadelphia, PA : Mosby.

Mawer, M. (2014). *Effective Teaching of Physical Education*.Longman: Harlow.

INSTRUCTIONAL TECHNOLOGY IN HEALTH & PHYSICAL EDUCATION

Course Code:EDBES357 **Credit hours:3**

Course Description

This course is designed to acquaint students with the Learning Outcomes to make them understand the basic concepts of physical education and its relation to Health Education, and provide preliminary awareness about physical, mental and social developments; interpretation of biological, psychological effects on physical activities. This course is designed with the purpose to acquaint students with basic concepts, theories and types of Health & Physical Education Curriculum related to development process and strategies adopted for evaluation and changes in curriculum as required. This course will bring awareness in students about the general sociological perspectives and understanding about the various levels of interactions in society through sports. Further, they will understand the interaction occur in sports activities and further will help in the origination of sports and in the resolution of various conflicts. In addition to the various other Learning Outcomes, this course will specifically improve the moral and ethical background and will help in better socialization and personality development.

LEARNING OUTCOMES

1. Students actively engage in class activities and devise appropriate training programs for the sport activities.
2. Students can assess fitness levels and devise appropriate fitness plans.
3. It will benefit to develop awareness and learning for good health maintenance of students
4. It will help students to cooperate with each other in sense of Communication, Fair play, Leadership and Team work
5. It will help to implement developmentally appropriate units of instruction in physical education.
6. It will facilitate to plan developmentally appropriate physical education lessons.
7. It will help to plan developmentally appropriate units of instruction in physical education.
8. Apply academic concepts of the professional discipline to promote healthy lifestyles through physical activity, fitness, wellness, and sports
9. Apply principles, analytical methods, and best practices for designing, implementing, and evaluating health promoting activity and programs.
10. Demonstrate personal behaviours that exemplify professionalism.

CONTENTS

1) PHILOSOPY AND PHYSICAL EDUCATION

1.1 Basic definitions related to Physical Education
1.2 Components of Philosophy of Physical Education
1.3 Relationship of Physical Education with Naturalism, Idealism, Realism, Pragmatism, Existentialism

2) MOVEMENTS THE KEY STONE OF PHYSICAL EDUCATION

2.1 Origins of Movement Education
2.2 Nature of Movement Education
2.3 Schools of Thought
2.4 Theories of Movement

3) **LEARNING OF SELECTED FUNDAMENTAL MOVEMENTS**

3.1 Locomotor Movement
3.2 Walking – Running
3.3 Jumping – Hoping
3.4 Sliding – Leaping
3.5 Rolling – Gliding

a. **Non-Locomotor Movements**

1. Curling & Stretching ⟶ Turning & Twisting
2. Pushing & Puling ⟶ Lifting & Lowering
3. Swimming & Circling ⟶ Stillness & Balancing

b. **Other Areas**

1. Movement Sequence
2. Partner & Group Work
3. Small Area Games & Lead-Up Activities.

4) **PHYSICAL ACTIVITY AND READINESS**

4.1 What is physical activity
4.2 Warm up and Cool Down
4.3 Health benefits of physical activity
4.4 Physical activity Pyramid

5) **PHYSICAL EDUCATION AND RECREATION**

5.1 Definition of Recreation
5.2 Types of Recreation
5.3 Principles of Leisure
5.4 Outdoor pursuits

6) **PHYSICAL EDUCATION TEACHER FOR SPECIAL POPULATION**

6.3 Attributes of Physical Education Teacher
6.4 Qualifications of Physical Education Teacher

7) **PLANNING THE PHYSICAL EDUCATION CURRICULUM**

7.1 Curriculum Development, Tasks in curriculum planning
7.2 Coeducation planning, Curriculum opinion, Structuring for quality

8) **ORGANIZATION FOR INSTRUCTION**

8.1 Determining Scope, Sequence and scheduling the curriculum
8.2 Flexible Scheduling in Physical Education curriculum
8.3 The need for multiple teaching stations
8.4 Time Allotment for program Elements, Correlation and Integration
8.5 Organizational Design of the curriculum.

9) **THE PHYSICAL EDUCATION PROGRAMME**

a. The physical education curriculum for Kindergarten, primary, Middle Grade, Secondary & Higher Secondary levels

10) **EVALUATING THE CURRICULUM**

10.1 The intent of Measurement and Evaluation
10.2 Measuring progress in Elementary School
10.3 Secondary School Evaluation,
10.4 Appraising the Total Curriculum

Assessment and Examinations

The students will be assessed according to the following criteria

Examination	Marks Distribution
Sessional Work	25%
Mid-Semester	35%
Final Semester	40%

Suggested Readings

Carl, E. W. (1974).*The curriculum in physical education.*NJ: Prentice Hall, Inc, Englewood Cliffs.

Charles, A. B., (1979). Foundations of Physical Education.St.Louis: The C.V. Mosby Company.

Dr. Abdul Whaeed Mughal, *Athletics Skill and Officiating*, Islamabad:_____.

Anwar Alam, A. (2005). *Principles of Sociology*, Department of Sociology, University of Peshawar.

Jain, A, (2003). *Adapted Physical Education*, New Delhi: Sports Publication.

Jain, A. (2003). *Adapted Physical Education*, New Delhi: Sports Publication.

Kelly, L. E., (2006).*Adapted Physical Education national standards(2nd ed)*. London: Human Kinetics Pub.

Misra, B., (2002). *Handbook of Teaching Disabled*, New Delhi: Mohit.

Paul, B. H.,& Chesler, L. H. (1994). *Sociology.* Singapore: McGra Hill.

Shekar, K.C. (2005). *Adapted Physical Education*, New Delhi: Khel Sahitya Kendra.

Shekar, K.C. (2005). *Adapted Physical Education*, New Delhi: Khel Sahitya Kendra.

Zanden, J. W. V. (1995). The*Social Experience.* New York:McGraw Hill.

TRENDS AND ISSUES IN HEALTH &PHYSICAL EDUCATION

Course Code:EDBES358 **Credit hours:3**

Learning Outcomes

This course is designed to acquaint students with the Learning Outcomes to make them understand the basic concepts of physical education and its relation to Health Education, and provide preliminary awareness about physical, mental and social developments. This course will provide students with the knowledge, skills and abilities necessary to integrate healthy living strategies in a variety of recreational settings. A diversity of recreation and fitness initiatives will be explored through self-driven and planned activities. This course will provide opportunities to familiarize students with the importance of Fitness for general purpose and for sports. It will help to a common person to care about his/her health and fitness. This course will provide a variety of activities which will motivate the students and increase participation. This program will teach the students to establish lifelong fitness goals. This course will help to demonstrate understanding of physical education content and disciplinary concepts related to the development of a physically educated person.

LEARNING OUTCOMES

1. Students actively engage in class activities and devise appropriate training programs for the sport activities.
2. Students also assess fitness levels and devise appropriate fitness plans.
3. It will benefit to maintain good health in students
4. It will help students to cooperate with each other in sense of Communication, Fair play, Leadership and Team work
5. It will promote self- discipline in students
6. It will assist to attain and maintain physical fitness and overall wellness.
7. It will apply academic concepts of the professional discipline to promote healthy lifestyles through physical activity, fitness, wellness, and sports
8. It will apply principles, analytical methods, and best practices for designing, implementing, and evaluating health promoting activity and programs.
9. Demonstrate personal behaviors that exemplify professionalism.

CONTENTS

10. INTRODUCTION

1.1 Historical background of Physical Education
1.2 Definition and scope of Physical Education
1.3 Aims and Learning Outcomes of Physical Education

11. SPORTS AND SOCIETY

2.1 Definitions
2.2 Types of societies and cultures
2.3 Development of youth sports
2.4 The role of sports in the development of individual and society

12. SCIENTIFIC FOUNDATION OF PHYSICAL EDUCATION

3.1 Biological interpretation of Physical Education
3.2 Psychological interpretation of Physical Education
3.3 Sociological interpretation of Physical Education

13. PHYSICAL FITNESS IN OUR LIFE

4.1 Health Related Fitness (Need, significance & Improvement)
4.2 Skill Related Fitness (Need, significance & Improvement)
4.3 Training Principles (Need, significance& Improvement)
4.4 Various methods of training(Need, significance & Improvement)

14. MODERN TECHNOLOGIES IN PHYSICAL EDUCATION

5.1 Modern Technologies in Sports Equipment
5.2 Modern Technologies in Sports Rules and Regulations
5.3 Modern technologies in Uniform and Sporting Gears

6 PLAY GROUNDS AND COURTS

6.1 Preparation and maintenance of playground & courts
6.2 Marking of play grounds and courts
6.3 Safety measures for play grounds & courts / equipment

7 MEASUREMENT OF PHYSICAL FITNESS

7.1 Definition of Physical Fitness
7.2 Components of Physical Fitness
7.3 Measurement of Physical Fitness components

8 SYSTEMS OF TOURNAMENT

8.1 Single elimination or knockout system
8.2 Round robin or league system
8.3 Combination system
8.4 Challenge system
8.4.1 Ladder system
8.4.2 Pyramid system

9 ORGANIZATION AND CONDUCT OF TOURNAMENTS

9.1 Board level
9.2 University level
9.3 Provincial level
9.4 National level

10 LEADERSHIP IN PHYSICAL EDUCATION

10.1 Definition and types of leadership
10.2 Selection criteria of leader
10.3 Qualities of a good leader
10.4 Challenges in Physical Education profession

Assessment and Examinations

The students will be assessed according to the following criteria

Examination	Marks Distribution
Sessional Work	25%
Mid-Semester	35%
Final Semester	40%

Suggested Readings

Mughal, A. W. (___). *Athletics Skill and Officiating*, Islamabad: _____.

Almond, L (Ed.). (2014). *Physical education in schools*. London: Routledge.

Charles A. B. (2003). *Foundation of PH. Ed. Exercise Sc.And Sports.* 14th edition l. New York: McGraw Hill

Corbin, C.B., Welk, G.J., Corbin, W.R., & Welk, K.A. (2016). *Concepts of fitness and wellness: A comprehensive lifestyle approach.* New York, NY: McGraw-Hill Education.

Daryl Siedentop. (2001).*Introduction to Physical Education Fitness Sport*, 5th ed. New York: McGraw Hill

Hoeger, W. W., & Hoeger, S. A. (2014). *Fitness and wellness.*Boston: Cengage Learning.

Hoeger, W. W., &Hoeger, S. A. (2014). *Lifetime physical fitness and wellness: A personalized program.* New York: Cengage Learning.

Hoeger, W. A. & Hoeger, S. A. (2015). *Principles and labs for fitness and wellness.* Wadsworth: Cengage Learning.

Jay Coackley, (2007). *Sports in Society: Issue & Controversies.* New York: McGraw Hill.

Safrit, M. J. & Wood, T. M. (2007). *Introduction to Measurement in PE and Exercise Science(3rd ed).* Philadelphia, PA : Mosby.

Mawer M. (2014). *Effective Teaching of Physical Education.*Longman:Harlow.

(III)Area of Specialization Courses in History

METHODS OF TEACHING HISTORY

Course Code:EDBES361 **Credit hours:3**

Introduction

History deals with the record of the past. However, it is not just a plain record but rather the construction, interpretation and evaluation of the past, which is the subject matter of history. As the past, present and the future are inextricably linked, the importance of history cannot be denied. The true dissemination of historical knowledge is therefore a pre-requisite for a nation's development. That is the reason that from ancient times, the teaching of history at all levels has remained an essential part of the curricula of the Universities.

Aims and Learning Outcomes

1. to cater to the need of the nation to produce the researchers and scholars who can write political, social, economic and intellectual history of the people of Pakistan
2. to produce such academics who can teach history in schools, colleges and universities at the graduate and undergraduate levels

Contents

1: Introduction

1.1 Early History of Islam
1.2 Research Methodology in Histography
1.3 State and Society in Muslim India 1206-1707
1.4 Muslim Struggle for Independence 1858-1947
1.5 Government & Politics in Pakistan 1947-1999

2: History of Indo-Pakistan

2.1 Ancient India
2.2 Muslim Rule in India (712-1526)
2.3 The Great Mughals (1526-1707)
2.4 Later Mughals & British India (1707-1857)
2.5 The Punjab in Modern Times

3: Umayyads and Abbasides

3.1 Muslim Rule in Spain
3.2 The Ottoman Empire (1288-1924)
3.3 Central Asia
3.4 Contemporary Middle East

4: European History in Different Eras

4.1 Early Modern Europe (1453-1789
4.2 Modern Europe (1789-1919)
4.3 History of England (1688-1919)
4.4 United States after Second World War
4.5 International Relations and Organizations

5: Islamic Heroes

5.1 Life of the Holy Prophet (Peace be upon him)

Early life, declaration of Nabuwwat, reaction, Hijrat, City State of Medina, Ghazawat, the Conquest of Mecca, the Last Sermon, Transformation of Society, Political and Economic System, Administration of justice, Advancement of education, Learning and scientific approach, Policy towards Non-Muslims, Foreign relations and Military system, Spread of Islam

5.2 Hazrat Abu-Bakar

Early life, Sacrifices for the cause of Islam, Election as Caliph, Early difficulties, Munkreen-i-Zakat, apostacy, consolidation of the state, conquest of Iraq, foreign policy towards Iran, Syria and Byzantine, compilation of Quran, character and achievements.

5.3 Hazrat Umar bin Khattab

Early life, servics for Islam, election as Caliph, Expansion and conquests, reforms, character & achievements.

5.4 Hazrat Usman

Early life, role during the life of Holy Prophet, Hazrat Abu Bakar and Hazrat Umar, election as Caliph, foreign policy and expansion of the state, martyrdom and its consequences, character and achievements.

6: Trends and Issues in History

6.1 Culture & religious diversity and human rights
6.2 Re-imagining Pakistan: countering social science research agenda & approaches
6.3 Population & sustainable development
6.4 Economic issues
6.5 Socio-psychological determinants of health
6.6 Internal challenges & national integration
6.7 Ethno-national issues
6.8 History, politics and politics in Pakistan

Assessment and Examinations

Examination	**Marks**
Sessional Work	25%
Mid-Semester	35%
Final Semester	40%

Suggested Readings

Allama G. (1967). *Documents of Pakistan Movement.* Karachi: Making of Pakistan.

Abdul, H. (1967). Muslim Separatism in India: A Brief Survey 1858-1947. New Delhi: Oxford University Press.

Collingwood, R.G. (1966). *The Idea of History (Rev. ed).* New York: Oxford University Press.

Jamil ud Din, A. (1969). *Early Phase of Struggle for Pakistan: Middle Phase of Struggle for Pakistan.* Lahore: Publishers United.

Stanford, M. (1994). *A Companion to the Study of History.* Oxford UK and Cambridge USA: Blackwell.

INSTRUCTIONAL TECHNOLOGY FOR TEACHING OF HISTORY

Course code: EDBES362 **Credit Hours: 3**

Course Description

Man and time have not been static. Often, there have been changes in man's activities as a result of challenges posed by his environment and his fellow man. These challenges are either between man and his environment or between man and man. The challenges are also enormous. Although, the activities might have happened in the past, they usually left behind relics, traces and marks that become subjects of collection and interpretation. Bards, witch doctors, folk singers, poets, etc., who were responsible for preserving and recounting stories of the past activities of any particular person, tribe or society can be regarded as historians as they have been dated back to the earliest human societies. History has been developed as a discipline. In this unit you are going to examine the meaning and scope of history. An overview of history as a subject is paramount in understanding the methods of teaching it. A good grasp of the basic elements of history will give one a better footing in teaching it. Hence, there is the need to have an overview of the meaning and scope of history.

LEARNING OUTCOMESS

1. To identify the basics of educational of instructional technology in teaching history.
2. Identify considerations that ensure optimum utility of teaching of learning technologies in teach history interactive approach
3. To support to use the system approach to design suitable teaching materials which focus on helping learners acquire a basic level of history competencies
4. To point out the different aspects of educational technology to assess their students' history knowledge and progress using their own self-designed assessment procedures.
5. To design a cast effective media of media selection rules to explain in basic terms how history knowledge is acquired through technological teaching
6. Construct lesson plan employing media for a subsection of a class to figure out the most important and modern technologies of time

Contents

1: The Meaning and Scope of History
2: Nature and Content of History Unit 3: The Importance of Teaching and Learning History
3: Differentiation between Aims and Learning Outcomes in Planning Teaching
4: Formulating Behavioural Learning Outcomes Unit 3: Syllabus versus Scheme of Work 5: Writing Lesson Plans
6: Methods and Strategies Differentiated
7: Methods of Teaching History I (Lecture and Demonstration Methods)
8: Methods of Teaching History II (The Discussion, Project and Dramatic Methods)
9: Method of Teaching History III (The Questioning Technique and Simulation)
10: The Place of Audio-Visual Materials in Teaching History
11: Meaning and Importance/Purpose of Evaluation in History
12: Techniques of Evaluation in History I (Essay, Objective Questions) 13: Techniques of Evaluation in History II (Teacher- Made Test and Observation)

Teaching-learning Strategies

The instructional strategies will focus on constructionist learning approach. These strategies will be diverse in line with the course contents. Therefore, these strategies will include but not limited to demonstration, cooperative learning, collaborative learning, teacher and student-led discussion, individual and group presentations, reflective practices and classroom activities.

Assessment and Examinations

Examination	Marks
Sessional Work	25%
Mid-Semester	35%
Final Semester	40%

Suggested Readings

Answers.com. (2009).*Meaning nature & scope of history. Retrieved from* http://in.answers.yahoo.com/question/index?qid=20070221021307AA3In7I

Ayot, H. O. (1979). *New approach in history teaching in schools*. Nairobi: Kenya Literature Bureau.

Baiyelo, T. D. (1992). *Critical review of models in curriculum evaluation*. In K. A. Baiyelo, T. D. (1993).Curriculum evaluation. In U.M.O. Ivowi (ed.). *Curriculum development*. Ibadan: Sam Bookman.

Barnes, H. E. (1962). *A History of historical writing* (2nd ed.). New York: Dover Publications.

Callahan, J. F., Clark, L. H, & Kellough, R. D. (1997).*Teaching in the middle secondary school (*6th ed.). Harlow, Essex: Prentice Hall.

Carr, E. H. (1990). *What is history?* (New Ed ed.). London: Penguin.

Clark, L. H., & Starr, I. S. (1995).*Secondary and middle school teaching methods* (7th ed.). Harlow, Essex: Prentice Hall.

Crabtree, D. (1993). The importance of history. Retrieved from http://www.mckenziestudycenter.org/society/articles/history.html

Garvey, B., & King, M. (1977).*Models of history teaching in secondary schools*.Oxford: Oxford University Press.

Garvey, B., & Krug, M. (1977).*Models of history teaching in the secondary schools*. Oxford: Oxford University Press.

Gooch, G. P. (1913). *History and historians in the nineteenth century*. London: Longman, Green & Co.

Gronlund, N. E. (1981). *Measurement and evaluation in teaching* (4th ed.). London: Collier Macmillan.

Kyriacou, C. (1986). *Effective teaching in schools*. Oxford: Basil Black Well Ltd.

Mager, R. F. (1997).*Preparing instructional Learning Outcomes*. Atlanta, GA: The Center for Effective Performance

Marwick, A. (1989). *The nature of history* (3rd ed.). Basingstoke: Palgrave Macmillan.

Ndubisi, F. A. (1981). *Curriculum Learning Outcomes for effective teaching*. Onitsha, Nigeria: Africana Educational Publishers (Nig.) Ltd.

Ndubisi, F. A. (1981). *Curriculum Learning Outcomes for effective teaching*. Onitsha, Nigeria: Africana Educational Publishers Ltd.

Osokoya, I. O. (1996).*Writing and teaching history: A guide to advanced study.* Ibadan: Oluseyi Press Ltd.

Vansina, J. (1965). *Oral traditional: A study of historical methodology*. London: Aldine Publishing.

Wikipedia Organization.(2009). Retrieved from Historiography. http://en.wikipedia.org/wiki/Historiography

Vansina, J. (1965). *Oral traditional: A study of historical methodology*. London: Aldine Publishing.

Vernon, P. E. (1962). Personality tests and assessments. London: Methuen.

Wikipedia Organization.(2009). Retrieved from History. http://en.wikipedia.org/wiki/History

TRENDS AND ISSUES IN TEACHING HISTORY

Course code: EDBES363 **Credit Hours: 3**

Course Description

History deals with the record of the past. However, it is not just a plain record but rather the construction, interpretation and evaluation of the past, which is the subject matter of history. As the past, present and the future are inextricably linked, the importance of history cannot be denied. The true dissemination of historical knowledge is therefore a pre-requisite for a nation's development. That is the reason that from ancient times, the teaching of history at all levels has remained an essential part of the curricula of the Universities.

Aims and Learning Outcomes

3. to cater to the need of the nation to produce the researchers and scholars who can write political, social, economic and intellectual history of the people of Pakistan
4. to produce such academics who can teach history in schools, colleges and universities at the graduate and undergraduate levels

Contents

1: Introduction

1.1.Early History of Islam
1.2.Research Methodology in Histography
1.3 State and Society in Muslim India 1206-1707
1.4 Muslim Struggle for Independence 1858-1947
1.5.Government & Politics in Pakistan 1947-1999
1.6.1958 Ayub Khan Causes of Government.
1.7 Indo-Pak. War 1965-1975
1.8.Separation of East Pak
1.9 Foreign Policy challenges
1.10. (1999 to 2008) Military Rule
1.11. 2008 to 2013 civil rules and causes

2: **History of Indo-Pakistan** Ancient India

a. Muslim Rule in India (712-1526)
b. The Great Mughals (1526-1707)
c. Later Mughals & British India (1707-1857)
d. The Punjab in Modern Times

3: Umayyads and Abbasides

3.1 Muslim Rule in Spain
3.2 The Ottoman Empire (1288-1924)
3.3 Central Asia
3.4 Contemporary Middle East

4: European History in Different Eras

4.1 Early Modern Europe (1453-1789)
4.2 Modern Europe (1789-1919)
4.3 History of England (1688-1919)
4.4 United States after Second World War (1945)
4.5 International Relations and Organizations (Specifically)

5: Islamic Heroes

5.1 Life of the Holy Prophet (Peace be upon him)

Early life, declaration of Nabuwwat, reaction, Hijrat, City State of Medina, Ghazawat, the Conquest of Mecca, the Last Sermon, Transformation of Society, Political and Economic System, Administration of justice, Advancement of education, Learning and scientific approach, Policy towards Non-Muslims, Foreign relations and Military system, Spread of Islam

5.2 Hazrat Abu-Bakar

Early life, Sacrifices for the cause of Islam, Election as Caliph, Early difficulties, Munkreen-i-Zakat, apostacy, consolidation of the state, conquest of Iraq, foreign policy towards Iran, Syria and Byzantine, compilation of Quran, character and achievements.

5.3 Hazrat Umar bin Khattab

Early life, servics for Islam, election as Caliph, Expansion and conquests, reforms, character & achievements.

5.4 Hazrat Usman

Early life, role during the life of Holy Prophet, Hazrat Abu Bakar and Hazrat Umar, election as Caliph, foreign policy and expansion of the state, martyrdom and its consequences, character and achievements.

6: Trends and Issues in History

6.1 Culture & religious diversity and human rights
6.2 Re-imagining Pakistan: countering social science research agenda & approaches
6.3 Population & sustainable development
6.4 Economic issues
6.5 Socio-psychological determinants of health
6.6 Internal challenges & national integration
6.7 Ethno-national issues
6.8 History, politics and politics in Pakistan

7 **Teaching-learning Strategies**

8 The instructional strategies will focus on constructionist learning approach. These strategies will be diverse in line with the course contents. Therefore, these strategies will include but not limited to demonstration, cooperative learning, collaborative learning, teacher and student-led discussion, individual and group presentations, reflective practices and classroom activities.

Assessment and Examinations

Examination	**Marks**
Sessional Work	25%
Mid-Semester	35%
Final Semester	40%

Suggested Readings

Allama G. (1967). *Documents of Pakistan Movement*. Karachi: Aziz KK, Making of Pakistan.

Abdul, H. (1967). Muslim Separatism in India: A Brief Survey 1858-1947. New Delhi: Oxford University Press.

Collingwood, R. G. (1966). *The Idea of History (Rev. ed)*. New York: Oxford University Press.

Jamil ud Din, A. (1969). *Early Phase of Struggle for Pakistan: Middle Phase of Struggle for Pakistan*. Lahore: Publishers United.

Stanford, M. (1994). *A Companion to the Study of History*. Oxford UK and Cambridge USA: Blackwell.

(III)Area of Specialization Courses in Pakistan Studies

TEACHING OF PAKISTAN STUDIES

Course code: EDBES366 **Credit Hours: 3**

COURSE DESCRIPTION

Pakistan Studies is the integrated, coordinated and systematic study drawing upon disciplines of social sciences such as history, geography, anthropology, economics, political science and sociology in relation to Pakistan. The Pakistan Studies course provides a background of Pakistan Movement and i.e. land, economy, human development and domestic and international current issues. The course will provide opportunities to the prospective teachers to enhance their content knowledge indiscipline's that form the core of Pakistan studies; to critically examine the content; to broaden their vision and understanding of society, democratic citizenship, respect for cultural diversity and religious harmony; to develop their range of skills such as information gathering and processing, map reading, critical thinking, decision making, problem solving, communication and presentation skills; and to explore values and dispositions such as commitment to the common good and justice, to social responsibility, action and develop personal qualities like self-esteem, confidence and initiative and risk taking. The Pakistan Studies course is designed keeping in mind aims/Learning Outcomes of the National Curriculum for Pakistan Studies and the topics Contents in the curriculum. This course endeavours to prepare students to be active, conscientious citizens who take informed decisions and make contributions for positive change in society.

LEARNING OUTCOMES

1. To identify the basics of educational of instructional technology in teaching Pakistan Studies.
2. Identify considerations that ensure optimum utility of teaching of learning technologies in teach Pakistan Studies interactive approach
3. To support to use the system approach to design suitable teaching materials which focus on helping learners acquire a basic level of Pakistan Studies competence
4. To point out the different aspects of educational technology to assess their students' Pakistan studies knowledge and progress using their own self-designed assessment procedures.
5. To design a cast effective media of media selection rules to explain in basic terms how Pakistan studies knowledge is acquired through teaching
6. Construct lesson plan employing media for a subsection of a class to figure out the most important and modern technologies of time

Contents

The Contents will be covered within one semester and consist of four units. A weekly breakdown of each unit is provided below:

1: HISTORICAL PERSPECTIVES

1.1 -Introduction; The concept of civilization

Introduction to the course
Civilization
Ancient civilizations of Indus valley: Mohenjo-Daro and Harrapa

1.2-**Skills development**

Inquiry skill
Presentation skill
Teaching history: facts versus opinions

1.3 -Ideological rationale with Suggested Readings to important personalities

Two nation theory: Sir Syed Ahmad Khan, Allama Iqbal and Quaid-eAzam

Muhammad Ali Jinnah

1.4 -**Factors leading to the birth of a nation**

Factors leading to the creation of Pakistan - Economic, Social and Political

1.5 -**Factors leading to the birth of a nation**

Factors leading to the creation of Pakistan - Economic, Social and Political

1.6 -**Struggle for Pakistan**

British colonization and Muslim reform movement (1857 – 1905)

The struggle of independence (1905 – 1940)

1.7 -**Struggle for Pakistan**

The Pakistan movement (1940 – 1947)

The teething years (1947 – 1958)

2: LAND AND PEOPLE

2.1-Geography of Pakistan

General overview to geography of Pakistan

Introduction to project work

2.2-Map skills

Globe and different types of map

Skill development: map and globe reading and interpreting

2.3-Physical features of Pakistan

Physical features of Northern and Western Highlands and The Punjab Plains

2.4-Weather and climate; Factors affecting weather and climate

Factors that influence weather and climate of Pakistan

Major climatic zones of Pakistan and their characteristics

2.5-Environmental problems in Pakistan

Major Natural and Human Made Disasters in Pakistan

Disaster Management / Preparedness

2.6-Movement and Human environment interactions

Movement: people, goods and ideas;

Humans adapt to the environment / Humans modify the environment / Humans depend on the environment.

2.7-Population and its effects on economy

Population density and distribution

Population growth and its effects on economy of the country

• Analyse factors influencing population change and its effect on economy;

3: BASIC ECONOMICS

3.1-Basic Concepts of Economics

Goods and services

Utility

Scarcity

3.2-Economic systems

Market

Command

Mixed

3.3-Sectors of the economy - Agriculture

Role and importance of agriculture in Pakistan's economy

Agriculture production and productivity

3.4-**Sectors of the economy – Industry**
Contribution of industrial sector to national economy
Prospects for industrialization
3.5-Sectors of the economy - Trade
Major imports and exports of Pakistan
3.6-**Economic Development**
Economic development and growth
Economic development of Pakistan

4: GOVERNMENT AND POLITICS IN PAKISTAN
4.1-The government of Pakistan
Introduction
Systems, levels functions and branches of government
4.2-**Objective Resolution**
The approval of the Objective Resolution by the Constituent Assembly
Key features of the Objective Resolution
Significance and impact of Objective Resolution in constitution making
4.3-The Political and Constitutional Phases
Pakistan: The early years (1947 – 1958)
The Ayub Era (1958 – 1969)
The Yahya Regime (1969-1971)
4.4-**The Political and Constitutional Phases**
The Z. A. Bhutto Era (1971-1977)
The Zia Regime (1977-1988)
Civillian Rule (1988-1999)
Musharraf Rule (1999-2008)
4.5-The 1973 Constitution
4.6-**Citizen participation**
The role of the citizen in a democracy;
Civil society and the role of civil society
Major Civil Society Organizations: Origin, Growth, Contribution and Impact
4.7-Citizen participation
Role of major political parties in politics of Pakistan
5: CONTEMPORARY PAKISTAN
5.1-**Contemporary Pakistan**
Politics
5.2-Contemporary Issues
Major Social, Cultural, Sectarian and Ethnic issues
5.3-**The future of Pakistan**
Economic Prospects
Positional opportunities and threats
5.4-Consolidation of the course
5.5-**Conclusion of the course**

Teaching-learning Strategies

The instructional strategies will focus on constructionist learning approach. These strategies will be diverse in line with the course contents. Therefore, these strategies will include but not limited to demonstration, cooperative learning, collaborative learning, teacher and student-led discussion, individual and group presentations, reflective practices and classroom activities.

Assessment and Examinations

Examination	Marks
Sessional Work	25%
Mid-Semester	35%
Final Semester	40%

Suggested Readings

Abid, S.Q. (2007).*A Muslim Struggle for Independence: Sir Syed to Muhammad Ali Jinnah.* Lahore: Sang-i-Meel.

Ali, C. M. (1998).*The Emergence of Pakistan.* Lahore: Research Society of Pakistan.

Ali, M (2001). *Readings in Pakistan's Foreign Policy.* Karachi: Oxford University Press.

Amin, S.M. (2004). *Pakistan's Foreign Policy: A Reappraisal.* Karachi: Oxford University Press.

Anwar, S. (2007). *Issues and Realities of Pakistani Politics.* Lahore: Research Society of Pakistan,University of the Punjab.

Burke, S.M., Qureshi, S. (1995). The British Raj in India. Karachi: Oxford University.

Choudhary, G. W. (1969). *Constitutional Development in Pakistan.* London: Longman Group Ltd.

Citizenship Rights and Responsibilities Pakistan (CRRP) Programme. (2007). *Youth in Elections: Voting for our future.* Islamabad: The Asia Foundation.

Cohen, S. P. (2005). *The Idea of Pakistan.* Karachi: Oxford University Press.

Dean, B.L., Joldoshalieva, R.,& Fazilat, A. (2006). *Creating a Better World: Education for Citizenship, Human Rights and Conflict Resolution.* Karachi: AKU-IED

Kazimi, M. R (2007). *Pakistan Studies.* Karachi: Oxford University Press.

Kazimi, M.R. (2009).*A Concise History of Pakistan.* Karachi: Oxford University Press.

Kennedy, C. (Ed.) (2006). *Pakistan 2005.* Karachi: Oxford University Press.

Khan, F. K. (1991).*A Geography of Pakistan: Environment, People and Economy.* Karachi: Oxford University Press.

Khan, H. (2001).*Constitutional and Political History of Pakistan.*Karachi: Oxford University Press.

Malik, H.,& Gankovsky, Y. V. (Eds.) (2006).The Encyclopedia of Pakistan. Karachi: Oxford UniversityPress.

Rabbani, M. I. (2003).*Introduction to Pakistan Studies (*Revised ed.*).*Lahore: Caravan BookHouse.

Rafique, A. (1999).*Political Parties in Pakistan(Vol. I, II and III).*Islamabad: National Institute of Historical and Cultural Research.

Shafqat, S. (2007).*New Perspectives on Pakistan: Visions for the Future,* Karachi:

Oxford University Press
Smith, V. (2007). *Pakistan: History, Culture and Government*. Karachi: Oxford University Press.
Yusuf, H. (1998). *A study of political Development 1947-99*. Lahore: The Academy.

Website Resources

Story of Pakistan: A multimedia journey
http://www.storyofpakistan.com/
Government of Pakistan
http://www.pakistan.gov.pk/
Pakistan Institute of Trade and Development
www.pitad.org.pk
Pakistan Agricultural Research Council
http://www.parc.gov.pk/
Geographical Association: Furthering the learning and teaching of Geography
http://www.geography.org.uk/
National Fund for Cultural Heritage
http://www.heritage.gov.pk/
Defense Journal:
http://www.defencejournal.com
Constitution of Pakistan
http://www.mofa.gov.pk/Publications/constitution.pdf
Declaration on Rights and Duties of States
http://untreaty.un.org/ilc/texts/instruments/english/draft%20articles/2_1_1949.pdf

INSTRUCTIONAL TECHNOLOGY IN TEACHING PAKISTAN STUDIES

Course Code:EDBES367 **Credit hours:3**

Course Description

Pakistan Studies is the integrated, coordinated and systematic study drawing upon disciplines of social sciences such as history, geography, anthropology, economics, and political science and sociology in relation to Pakistan. The Pakistan Studies course provides a background of Pakistan Movement and political development after its inception. It will also particularly cover the salient features of Pakistan i.e. land, economy, human development and domestic and international current issues. The course will provide opportunities to the prospective teachers to enhance their content knowledge in disciplines that form the core of Pakistan studies; to critically examine the content; to broaden their vision and understanding of society, democratic citizenship, respect for cultural diversity and religious harmony; to develop their range of skills such as information gathering and processing, map reading, critical thinking, decision making, problem solving, communication and presentation skills; and to explore values and dispositions such as commitment to the common good and justice, to social responsibility, action and develop personal qualities like self-esteem, confidence and initiative and risk taking. The Pakistan Studies course is designed keeping in mind aims/Learning Outcomes of the National Curriculum for Pakistan Studies and the topics Contents in the curriculum. This course endeavours to prepare students to be active, conscientious citizens who take informed decisions and make contributions for positive change in society.

LEARNING OUTCOMES

1. To create awareness among students about Pakistan as an enlightened nation , comparing it with the rationale and endeavours for Pakistan's creation;
2. To educate students about key concept in the disciplines comprising Pakistan Studies(history, geography, economics and political science);
3. To assist students to identify various perspectives on current, persistent and controversial issues in Pakistan; identify their own position and be able to support it;
4. To inculcate in students the sense of patriotism, tolerance, active citizenship, and respect for cultural diversity and religious harmony.
5. To encourage students to design and implement a project to promote active and responsible citizenship;

Content

1 1.1 Introduction of instructional Technology in teaching Pakistan Studies

1.2 Learning through custom-designed/ready-made applications
(available on DVDs/CDs – Story of Pakistan, tutorials, multimedia encyclopaedias, etc.)
Exploring the custom-designed multimedia resources
Instruction using available applications for teaching of Pakistan Studies

1.3 Using movies in education
Using video commercials in education
Using split-video technique in classroom

1.4 Documentaries and discussions
Exploiting the potential of television broadcast in education
Case-studies for extended reading

2: Methods of teaching:

2.1 Introduction
2.2 Observation Method
2.3 Laboratory Method
2.4 Project Method
2.5 Regional Method
2.6 Discussion Method
2.7 Effective lecturing
2.8 Cooperative learning structures
2.9 Conducting inquiry
2.10 Critical discussions / debates on the content materials
2.11 Visit and write reports or make presentations on places visited

3 Planning a Lesson & Preparation of Scheme of Lessons on Geography

3.1 Introduction
3.2 Concept of Lesson Plan
3.3 Necessity of planning lesson
3.4 Format of Plan
3.5 Meaning of Scheme of Lesson
3.6 Need and importance of scheme of Lesson
3.7 Procedure of preparing scheme of lesson
3.8 Specimen of Scheme of Lesson
3.9 Let us Sum-up

4 Instructional Materials in Teaching Geography

4.1 Introduction
4.2 Text books, Work books
4.3 Guide books, Suggested Readings Materials
4.4 Teaching Aids-
4.5 Visual aids, Maps, Globe, Atlas, Relief maps, Charts, Pictures, Slides Overhead Projectors, Filmstrip
4.4 Audio-radio, Tape Records
4.5 Audio-visual aids- TV, Film Projectors

5 Co-curricular Activities and Teaching Geography

5.1 Introduction
5.2 Meaning of co-curricular activities
5.3 Need and importance of co-curricular activities in teaching
5.4 Excursions & teaching Geography
5.5 Field Trips & teaching Geography
5.6 Museum & teaching Geography
5.7 Exhibition & teaching Geography
5.8 Let us sum up

Teaching-learning Strategies

The instructional strategies will focus on constructionist learning approach. These strategies will be diverse in line with the course contents. Therefore, these strategies will include but not limited to demonstration, cooperative learning, collaborative learning, teacher and student-led discussion, individual and group presentations, reflective practices and classroom activities.

Assessment and Examinations

Examination	Marks
Sessional Work	25%
Mid-Semester	35%
Final Semester	40%

Suggested Readings

Abid, S.Q. (2007).*A Muslim Struggle for Independence: Sir Syed to Muhammad Ali Jinnah.* Lahore: Sang-i-Meel.

Ali, C. M. (1998).*The Emergence of Pakistan.* Lahore: Research Society of Pakistan.

Ali, M. (2001).*Readings in Pakistan's Foreign Policy.* Karachi: Oxford University Press.

Amin, S. M. (2004). *Pakistan's Foreign Policy: A Reappraisal.* Karachi: Oxford University Press.

Anwar, S. (2007). *Issues and Realities of Pakistani Politics.*Lahore: Research Society of Pakistan,University of the Punjab.

Burke, S.M., &Qureshi, S. (1995). The British Raj in India. Karachi: Oxford University Press.

Choudhary, G. W. (1969). *Constitutional Development in Pakistan.* London: Longman Group Ltd.

Citizenship Rights and Responsibilities Pakistan (CRRP) Programme (2007). *Youth in Elections: Voting for our future.* Islamabad: The Asia Foundation.

Cohen, S. P. (2005). *The Idea of Pakistan.*Karachi: Oxford University Press.

Dean, B.L., Joldoshalieva, R., &Fazilat, A. (2006). *Creating a Better World: Education for Citizenship,Human Rights and Conflict Resolution.* Karachi: AKU-IED

Kazimi, M. R (2007). *Pakistan Studies.* Karachi: Oxford University Press.

Kazimi.M.R. (2009).*A Concise History of Pakistan.* Karachi: Oxford University Press.

Kennedy, C. (Ed.) (2006). *Pakistan 2005.* Karachi: Oxford University Press.

Khan, F. K. (1991).*A Geography of Pakistan: Environment, People and Economy.* Karachi: Oxford University Press.

Khan, H. (2001).*Constitutional and Political History of Pakistan.* Karachi: Oxford University Press.

Malik, H.,& Gankovsky, Y. V. (Eds.) (2006).The Encyclopedia of Pakistan. Karachi: Oxford University Press.

Rabbani, M. I. (2003). *Introduction to Pakistan Studies*(Revised ed.).Lahore: Caravan BookHouse.

Rafique, A. (1999). *Political Parties in Pakistan (Vol. I, II and III).*Islamabad: National Institute of Historical and Cultural Research.

Shafqat, S. (2007). *New Perspectives on Pakistan: Visions for the Future.* Karachi: Oxford University Press

Smith, N. (2007). *Pakistan: History, Culture and Government.* Karachi: Oxford University Press.

Yusuf, H. (1998).*A study of political Development 1947-99.* Lahore: The Academy.

Website Resources

Story of Pakistan: A multimedia journey
http://www.storyofpakistan.com/

Government of Pakistan
http://www.pakistan.gov.pk/
Pakistan Institute of Trade and Development
www.pitad.org.pk
Pakistan Agricultural Research Council
http://www.parc.gov.pk/
Geographical Association: Furthering the learning and teaching of Geography
http://www.geography.org.uk/
National Fund for Cultural Heritage
http://www.heritage.gov.pk/
Defense Journal:
http://www.defencejournal.com
Constitution of Pakistan
http://www.mofa.gov.pk/Publications/constitution.pdf
Declaration on Rights and Duties of States
http://untreaty.un.org/ilc/texts/instruments/english/draft%20articles/2_1_1949.pdf

TRENDS AND CONTEMPORARY ISSUES IN PAKISTAN STUDIES

Course code: EDBES368 **Credit Hours: 3**

Introduction:

Pakistan studies curriculum is the name of a curriculum of academic research and study that encompasses the culture, demographics, geography, history, and politics of Pakistan. This course deals with contemporary issues in the field of Pakistan studies. The key issues have implications for educational practices and are organized around four areas including development, learning and instruction motivation and classroom management. The issues are presented in a pros and cons format with an overview and question preceding each issues. It will also cover the salient features of Pakistan such as its land, economy, human development, and domestic, international, and current affairs.

Learning Outcomes:

1. Develop the familiarity with historical perspectives, on Pakistan and with its government and politics.
2. Study the process of governance, national development, issues arising in the modern age and posing challenges to Pakistan.

Contents

1. Historical Perspective

1.1 Indus Civilization
1.2 Evolution and growth of Muslim society in the Subcontinent
1.3 Ideological rationale with special Suggested Readings to Sir Syed Ahmad Khan, Allama Muhammad Iqbal and Quaid-e-Azam Muhammad Ali Jinnah.
1.4 Factors leading to Muslim nationalism in the Subcontinent

2. Natural Environment

2.1 Landforms
2.2 Climate
2.3 Water Resources

3. Government and Politics in Pakistan

3.1 Constitutional and Political developments in Pakistan 1947-1973
3.2 Salient features of the Constitutions 1956, 1962 and 1973 and Amendments
3.3 Political development in Pakistan: 1973 to date

4. Contemporary Pakistan (issues and prospects)

4.1 Major and Cultural issues
4.2 Sectarian and Ethnic issues
4.3 Economic potential and its utilization
4.4 Social issues, their gravity and resolution
4.5 Youth role in the development of Pakistan
4.6 World Affairs: challenges and contributions
4.7 Environmental issues and potential
4.8 Human Rights in Pakistan
4.9 Futuristic outlook of Pakistan

Assessment and Examinations

The students will be assessed according to the following criteria

Examination	Marks Distribution
Sessional Work	25%
Mid-Semester	35%
Final Semester	40%

Suggested Readings

Akbar, S. Z.(2000).*Issues in Pakistan's Economy.* Karachi: Oxford UniversityPress.

Aziz, M. R. (1998). *Political Parties in Pakistan, (Vol. I, II & III).* Islamabad: National Institute of Historical and Cultural Research.

Amin, T. (1988). *Ethno - National Movement in Pakistan.*Islamabad: Institute of Policy Studies, Islamabad.

Aziz, K. K. (1976). *Party Politics in Pakistan.* Islamabad: National Commission on Historical and Cultural Research.

Burke, S. M., & Ziring, L.(1993).*Pakistan's Foreign Policy: A Historicalanalysis.* Karachi: Oxford University Press.

Hamid Khan, (2001). *Constitutional and Political History of Pakistan.* Karachi: Oxford University Press.

Kazmi, M. R. (2009). *A Concise History of Pakistan.* Karachi: OUP.

Mehmood, S.(2000).*Pakistan: Political Roots & Development.* Karachi: Oxford University Press.

Mehmood, S. (nd). *Pakistan KayyunToota,* Lahore: Idara-e-Saqafat-e-Islamia, Club Road,

Noor ul Haq. (1993). *Making of Pakistan: The Military Perspective.* Islamabad: National Commission on Historical and Cultural Research.

Sayeed, K. (1967). *The Political System of Pakistan.* Boston: Houghton Mifflin.

Waseem, M. (1987). *Pakistan under martial law.* Lahore: Vanguard.

Wilcox, W.(1972). *The Emergence of Bangladesh.*, Washington: American Enterprise, Institute of Public Policy Research.

Zahid, A. (1980). *History & Culture of Sindh.* Karachi: Royal Book Company.

Ziring, L. (1980). *Enigma of Political Development.* Kent England: Wm Dawson & Sons Ltd.

Ziring, L. (1998).*Pakistan in the Twentieth Century.* Karachi: Oxford University Press

Ian Talbot, *Pakistan: A Country.*_____.

Suggested Resources

Abid, S. Q. (2007).*A Muslim Struggle for Independence: Sir Syed to Muhammad Ali Jinnah.*Lahore: Sang-i-Meel

Ali, C. M. (1998). *The Emergence of Pakistan.* Lahore: Research Society of Pakistan

Anwar, S. (2007). *Issues and Realities of Pakistani Politics.* Lahore: Research Society ofPakistan, University of the Punjab

Burke, S. M.,&Qureshi, S. D. (1995).*The British Raj in India.*Karachi: Oxford University.

Citizenship Rights and Responsibilities Pakistan (CRRP) Programme, (2007).*Youth in Elections: Voting for Our Future.* Islamabad: The Asia Foundation.

Cohen,S.P.(2005).*The Idea of Pakistan.* Karachi: Oxford University Press.

Dean,B.L., Joldoshalieva, R., & Fazilat, A.(2006).*Creating a Better World: Education for Citizenship, Human Rights and Conflict Resolution.* Karachi: Aga Khan University.

Kazimi, M. R. (2007).*Pakistan Studies.* Karachi: Oxford University Press.

Kazimi, M. R. (2009).*A Concise History of Pakistan.* Karachi: Oxford University Press.

Kennedy, C. (2006).*Pakistan 2005.* Karachi: Oxford University Press.

(III) Area of Specialization Courses in Political Science

TEACHING POLITICAL SCIENCE

Course code: EDBES371 **Credit Hours: 3**

COURSE DESCRIPTION

Political Science is the branch of social sciences that studies the state, politics and government. It also deals with the political system of all over the world. Political science is not standalone field; it intersects many other branches like sociology, economics, history, anthropology, and public policy.

The Political Science course provides introduction to political science and state system with the concept of Islamic state. It will also cover the comparative and analytical study of the political system. The course will provide opportunities to the prospective teachers with valuable, comprehensive knowledge of government and global politics, preparing them to analyze potential solution in both the public and private sector. It will also help prospective teachers to understand the politics influence on education; to identify the trends, issues and challenge in politics; to develop the ability to apply an interdisciplinary approach to the study of state related problems and suggest viable solutions. The Political Science course is designed keeping in mind aims/Learning Outcomes of the National Curriculum for Political Science and the topics Contents in the curriculum. This course endeavours to prepare students to be responsible citizens who suggesting solutions of the political problems faced by the world in general and Pakistan.

LEARNING OUTCOMES

1. To educate and train the students and make them conscious of their rights and Obligations towards the society. Such knowledge will facilitate their active participation in State business;
2. To inculcate among the students the practice of making comparisons by placing before them differing views of state and government;
3. To assist students to identify various issues, trends and challenges faced by the Pakistan politics.
4. To disseminate to the students' necessary knowledge of politics and administration and enable them to be effective managers irrespective of the professions they join later on.
5. To encourage them to contribute in the field of research related to national and international issues.

CONTENTS

The Contents will be covered within one semester and consist of four units. A weekly break down of each unit is provided below:

1: INTRODUCTION TO POLITICAL SCIENCE

Week Session

Topics

Subtopics

1. Introduction; The nature and scope of political science

1.1 Introduction to the course

1.2 Definition

1.3 Nature, scope and subfields of political science

2.State system

2.1 The nature of state system

2.2 Islamic concept of state

3. Political Institutions and Role of Government

3.1 Legislature

3.2 Executive

3.3 Judiciary

3.4 Political Elites
3.5 Civil Military
3.6 Bureaucracy

4 Forms of Government

4.1 Monarchy, Democratic, Dictatorship, Authoritarian and Unitary
4.2 Federation, Confederation
4.3 Presidential and Parliamentary

5 Political Ideologies

5.1 Capitalism
5.2 Marxism
5.3 Communism
5.4 Fascism
5.5 Islamic political ideology

Unit outcomes:

By the end of this unit, the students will be able to:

1. Understand the concept and nature of political science;
2. Identify the state system of Islam;
3. Evaluate role, forms and political institutions of Government;
4. Critically analyze the political ideologies

2 Political Thoughts

Week Session Topic

1.Western Political Thoughts

1.1 Political Institutions in ancient Greece
1.2 The philosophy of Socratic
1.3 Political philosophy of Plato
1.4 Political philosophy of Aristotle

2. Muslim Political Thoughts

2.1 The political concepts and institutions in Islam
2.2 Khilafat, Shura, Justice, Sovereignty and Equality
2.3 Political Ideology, National Socialism, Fascism Basic Principles of fascism

3.Muslim Political Thinkers

3.1 Al Ghazali
3.2 Ibn e Khuldoon
3.3 Shah Wali Ullah
3.4 Allama Iqbal

outcomes:

By the end of this unit, the students will be able to:

1. Provide evolution of Greek Political thought and institutions;
2. Acquaint with the major political concepts of Islam, the structural functional aspect of Islamic polity, the writings of prominent;
3. Apply the Islamic principles to modern times

3: COMPARATIVE AND DEVELOPMENT STUDY OF THE POLITICAL SYSTEM

Week Session Topic

1.Comparative Politics

Approaches to comparative politics:

1.1 Traditional approach of its characteristics and critique
1.2 Behavioural approach, its characteristics and critique

2.Political System and Political Culture

Political System of:

2.1 USA, UK, France and Germany

3. Political Development

3.1 Major Issues of National Identity and Integration:

3.2 Role of Bureaucracy and

3.3 Military Elite

outcomes:

By the end of this unit, the students will be able to:

1. Discuss the approaches to comparative politics;
2. Differentiate between political system and political culture;
3. Compare the political system of USA, UK
4. Analyze the political system of Iran, India and China

Session Topic

9 *13* **Political Movement in India**

Rise of Muslim Nationalism in South Asia

10*14***Constitution making from 1947-1973**

A comparative and critical analysis of 1956, 1962 and 1973 Constitution of Pakistan

15 **Constitutional Amendments up-to-date**

11*16***Federal Structure in Pakistan**

Central-Provincial relations after 18th Amendments;

12*17***Political Parties and Interest Groups in Pakistan**

Role of major political parties

Election and voting behaviours;

Religion and Politics

Ethnicity and National integration

outcomes:

By the end of this unit, the students will be able to:

- Describe the political movement in Colonial period ;
- Identify political and constitutional phases and developments in shaping the Pakistan's political systems;
- Recognize the significance of constitutional amendments;
- Recognize political parties and interest groups of Pakistan and their role.

5: TREND, ISSUES AND CHALLENGES OF PAKISTAN POLITICS

Week Session Topic

1.Politics

1.1 New Trends in Politics

2. Emerging trend in Pakistan's Politics

2.1 Foreign policy making process in Pakistan

3. Global challenges to political communities

3.1 Identity

3.2 Governance

3.3 Sustainability

4. Political influence on Education

Conclusion of the course

outcomes

By the end of this unit, the students will be able to:

1. Describe the political situation of Pakistan;
2. Investigate and lead a discussion on a key trends and issues;

3. Analyze the global challenges faced by political communities;
4. Identify the political influence on educational decision.

Assessment and Examinations

The students will be assessed according to the following criteria

Examination	Marks Distribution
Sessional Work	25%
Mid-Semester	35%
Final Semester	40%

Suggested Readings

Ali, M. (2001).*Readings in Pakistan's Foreign Policy.* Karachi: Oxford University Press.

Almond, G. A., Powell, B., Dalton, R., & Strom, K. (2008).*Comparative politics today: a theoretical framework.* USA: Pearson Longman.

Amin, S. M. (2004). *Pakistan's Foreign Policy: A Reappraisal.* Karachi: Oxford University Press.

Anwar, S. (2007). *Issues and Realities of Pakistani Politics.* Lahore: Research Society of Pakistan, University of the Punjab.

Barker, E. (2012). *The political thought of Plato and Aristotle.* NY: Courier Corporation.

Bigham, G., & Ray, J. (2012).The influence of local politics on educational decisions. *Current Issues in Education, 15*(2), 1-12.

Choudhary, G. W. (1969). *Constitutional Development in Pakistan.* London: Longman Group Ltd.

Dunziger, J. N., & Smith, C. A. (1996).*Understanding the political world: A comparative introduction to political science.* USA: Longman Publishers.

Khan, H. (2001). *Constitutional and Political History of Pakistan.*Karachi: Oxford University Press.

Sarwar, M. (1996).*Introduction to Political Science.*Lahore: IlmiKutubKhana.

Smith, N. (2007). *Pakistan: History, Culture and Government.* Karachi: Oxford University Press.

Stratford, J. S., Stratford, J., & Hollis, D. R. (1994). Contemporary British politics and government: By Phil G. Cocker. Kent: Tudor Business Publishing Limited, 1993. x, 404p. ISBN 1-872807-35-6.£ 12.99. *Journal of Government Information, 21*(4), 373-375.

Yusuf, H. (1998).*A study of political Development 1947-99.* Lahore: The Academy.

Website Resources

The News
https://www.thenews.com.pk/print/179517-New-trends-in-politics/
Daily Times
https://dailytimes.com.pk/103820/emerging-trends-in-the-politics-of-pakistan/

INSTRUCTIONAL TECHNOLOGY FOR TEACHING POLITICAL SCIENCE

Course code: EDBES372 **Credit Hours: 3**

Introduction

The Political Science course provides introduction to political science and state system with the concept of Islamic state. The course "Instructional Technology for Teaching Political Science" is designed to provide basic knowledge and understanding of the modern instructional technology for the teaching of political science at the higher secondary/intermediate level. Upon completing of this course, the students will be able to select, use and use reliable and valid achievement instructional technology for teaching political science. They should also be able to select the most appropriate instructional best suited for the topic related to politics, international relations, government and global politics and analyze the potential solutions for the political issues. The students will become familiar with the professional as well as ethical issues in use of using instructional technology.

The course also provides an understanding of the basic terminology, methods, designs and models as they relate to the area of teaching political science. It develops awareness about the procedures and options available worldwide in Instructional Technology in professional pursuit. The students will be able to work with content experts to develop training and instruction for the higher secondary/ intermediate programs for the teaching of political science.

Learning Outcomes

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

1. Understand the concept of instructional technology in the field of political science.
2. Recognize the importance of instructional technology for teaching the political science.
3. Familiarize with various methods of teaching political science.
4. Know the modern instructional technologies being used worldwide for teaching the course of political science.
5. Identify best method considering the needs of the topics related to political science.
6. Plan political science lessons incorporating instructional aides and best teaching method.
7. Develop low cost instructional aids for teaching political science.
8. Know the advantages and limitations of various instructional technologies.

CONTENTS

1. POLITICAL SCIENCE AND POLITICAL SCIENCE TEACHING

1.1 What is Political Science? (Scope, Objective, Importance)

1.2 Why to teach Political Science, Basic concept of Pol. Science.

1.3 Importance of teaching political science, origin of the state.

1.4 Methods of Study

1.5 State and Society Relation

1.6 Lesson Plans, and units, planning strategy

1.7 Projects approaches, technology in class rooms

1.5 Exploring the elements of Pol. Science

1.6 Data collection

1.7 Questions?

2. AIMS AND LEARNING OUTCOMES OF POLITICAL SCIENCE TEACHING

2.1 Learning Outcomes of Teaching Political Science

2.3 Specific Learning Outcomes, Behavioral Learning Outcomes and Performance Learning Outcomes

2.4 Designing Behavioral or Performance Learning Outcomes

3 LEARNING TO TEACH POLITICAL SCIENCE

3.1 The challenges to first time teacher

3.2 Possible approaches to motivate

3.3 Motivating undergraduates while teaching comparative politics

4. TEACHING AND LEARNING STRATEGIES

4.1 Concept of teaching and learning

4.2 Role of teacher in learning process

4.3 Methodology and 'IT' in the Teaching of Political Science

4.4 Critical thinking: Teaching Students How to Think Critically and Actively Express Their Opinions

4.5 Argumentation: Teaching by Other Means(Semi-structured Seminar)

4.6 Role Play in Foreign Policy Analysis

4.7 The File of Documents: A New Kind of Work for Students

4.8 Originality and Synergy in the Classroom

4.9 Use of Multimedia in teaching Political Science

4.10 Small Group Teaching

5. ASSESSMENT TOOLS USED IN THE TEACHING POITICAL SCIENCE

5.1 Importance of Assessment and Evaluation

5.2 Tools for assessment

5.2.1 Quizzes
5.2.2 Debates
5.2.3 Portfolios

6. New Trends in Instructional technology in the teaching of Political Science

6.1 Teaching Politics through Debate

6.2 Curiosity-raising and Essay-methodology As Useful Means 55 for Teachers

6.3 Teaching Argumentative Writing

6.4 (En)lightening a Course: The Intervention of External 61 Contributors

7. THE FUTURE OF TEACHING POLITICAL SCIENCE

7.1 Strategies How to Better Teach Political Science

ASSESSEMENT AND EXAMINATION

The Students will be assessed according to the following criteria.

Assignment/Project/Presentation/Review	25%
Mid Term Test	35%
Final Test	40%

Suggested Readings

Brown, J. W. Lewis, R.B., & Harcleroad, F. F. (1977).*Instruction, Technology, Media and Methods.*New York:McGraw Hill

Danziger, J. N., & Smith, C. A. (1996). *Understanding the political world: A comparative introduction to political science.* USA: Longman Publishers

Gagne, R. M., & Briges, J. D. (1974).*Principles of Instructional Design.*New York: Holt, Rinehart and Winston, Inc.

Jones, A.S. Bagford, L.W., & Wallan, F.A. (1979).*Strategies for teaching.*London: Metushan, N.J.

Sarwar, M. (1996). *Introduction to Political Science.* Lahore: IlmiKutubKhana.

Smith. N. (2007). *Pakistan: History, Culture and Government.* Karachi: Oxford.

Wittich, W.A., & Schuller, C.F. (1967).*Audio-visual-materials, Their Nature and Use,* N.Y:Harper and Row.

Website resources

Political science in 21st century
https://www.apsanet.org/portals/54/Files/.../TF_21st%20Century_AllPgs_webres90.pdf
How to teach political science?
http://teaching.eurea.sk/files/volume2.pdf
http://teaching.eurea.sk/files/How_to_Teach_Political_Science.pdf

TRENDS AND CONTEMPORARY ISSUES IN POLITICAL SCIENCE

Course code: EDBES373 **Credit Hours: 3**

Introduction

The course "Trends and contemporary issues in political science" is designed to provide basic knowledge and understanding of new trends, issues and challenges faced by political world. Upon completing of this course, the students will be able to analyze the current situation of politics all around the world. Students will be able to critically investigate and research the problematic areas of political science.

The course will provide opportunities to the prospective teachers with valuable, comprehensive knowledge of government and global politics, preparing them to analyze potential solution in both the public and private sector. It will also help prospective teachers to understand the politics influence on education; to identify the trends, issues and challenge in politics; to develop the ability to apply an interdisciplinary approach to the study of state related problems and suggest viable solutions.

Learning Outcomes

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

1. Develop an understanding of the key issues in the field of political science.
2. Recognize the trends of political science.
3. Familiarize with the methods of research in to the field of political science.
4. Assist students to identify various issues, trends and challenges faced by the Pakistan politics.
5. Disseminate to the students' necessary knowledge of politics and administration and enable them to be effective managers irrespective of the professions they join later on.
6. Present a research study proposal encompassing the contemporary issues in political Science.

CONTENTS

3.2 On Possible Approaches to Motivation

3.3 Motivating While Teaching Comparative Politics

4. Synergy in Classroom

4.1 Originality and Synergy in the Classroom

4.2 The Use of Team Exercises to Develop a Positive Synergy in the Classroom

5. TREND, ISSUES AND CHALLENGES OF PAKISTAN POLITICS

5.1 New Trends in Politics
- 5.1.1 Political influence
- 5.1.2 Emerging trends in Pakistan
- 5.1.3 Global challenges

5.2 Emerging's trends in Pakistan's politics

5.3 Foreign policy making process in Pakistan

5.4 Global challenges to political communities
- 5.4.1 Governance
- 5.4.2 Sustainability
- 5.4.3 Identity

6. Respect

6.1 Facing the Weakness, Winning the Students

6.2 How to Deal with Problematic Students

6.3 Gaining Respect

6.4 The One Who Wins the Students

7. Political Science in the 21st Century

7.1 Building a More inclusive Political science For The 21sT century

7.2 The Lack of Data

7.3 Current Practices and Programs

7.4 Expanding the Capacity of Political Science

ASSESSEMENT CRITERIA

The Students will be assessed according to the following criteria.

Assignment/Project/Presentation/Review	25%
Mid Term Test	35%
Final Test	40%

Suggested Readings

Amin, S.M. (2004). *Pakistan's Foreign Policy: A Reappraisal.* Karachi: Oxford University Press.

Anwar, S. (2007). *Issues and Realities of Pakistani Politics.* Lahore: Research Society of Pakistan,University of the Punjab.

Bigham, G., & Ray, J. (2012). The influence of local politics on educational decisions. *Current Issues in Education, 15*(2), 1-12.

Website Resources

The News
https://www.thenews.com.pk/print/179517-New-trends-in-politics/
Daily Times
https://dailytimes.com.pk/103820/emerging-trends-in-the-politics-of-pakistan/
Political science in 21st century
https://www.apsanet.org/portals/54/Files/.../TF_21st%20Century_AllPgs_webres90.pdf
How to teach political science?
http://teaching.eurea.sk/files/volume2.pdf
http://teaching.eurea.sk/files/How_to_Teach_Political_Science.pdf

(III) Area of Specialization Courses in Urdu

TEACHING METHOD IN URDU

Course code: EDBES376 **Credit Hours: 3**

B.Ed.(one & half year)

مطالعاتی خاکہ: تدریس اردو

Methods of Teaching Urdu

اہمیت (Rational)

اس کورس کی ترتیب نو کے مقاصد کو پیش نظر رکھتے ہوئے تعلمی اور تدریسی رسائی میں جدید و قدیم تدریسی طریقے مثلاً ترکیبی تحلیلی ،مخلوطی استقرائی ، استخرائی ، انکشافی اور خصوصاً فنکشنل وعملی جیسے مستند طریقے استعمال کیے گئے ہیں-سوالات کا اسلوب ،سمعی وبصری معاونات کا بر وقت استعمال انٹرنیٹ سے استفادہ ، پیرلرننگ جیسی تدریسی تکنیکوں کا ماہرانہ انداز میں موقع پر برتنا سکھایا گیا ہے جو ایک مشتاق استاد کی تدریسی حکمت عملی سے مزید کارآمد ہے ۔

یونٹ ا

تعارف زبان

تعارف

اس یونٹ میں زبان کی اہلیت کے وسیع تر موضوعات کو شامل کیا گیا ہے تا کہ اردو کے استاد کو ادب پر فنی اور زبان پر حتی الامکان دسترس حاصل ہو ۔ جہاں زبان کی تاریخی حیثیت کے حوالے سے بابائے اردو مولوی عبدالحق کی کاوشوں کو سراہا گیا ہے وہیں ڈاکٹر محمد صدیق خان شبلی کے مضمون عملی فنکشنل اردو سے بھرپور استفادہ کیا گیا ہے ۔تا کہ نوآموز اساتذہ جدید تدریسی تکنیک اور مہارتوں کو بروئے کار لاسکیں ۔ان طریقوں سے تدریس کو ایک منظم سائنس کی صورت میں پڑھانے کے لیے کئی ایک اصولوں کو بھی اختیار کیا جائے گا ۔مثلاً الفاظ کی بار بار مشق ، تذکیر و تانیث ، واحد و جمع ، جملہ سازی ، انتخابی مشقیں ان طریقوں میں بنیادی تدبیریں استعمال کی جائیں گی ۔ جو مثبت نتائج کا باعث بنیں گی ۔تا کہ ایلیمنٹری سطح کے اساتذہ زبان وادب کی تدریس میں جدید طریقے استعمال کرسکیں ۔

☆ تعارف زبان (اردو زبان کی ترقی کا پس منظر و پیش منظر)

☆ زبان کی اہمیت وافادیت (فکری / فنی / عملی سطح پر)

☆ اردو کے فروغ میں درپیش مشکلات (تدارک / غلط فہمیوں کا ازالہ)

☆ اردو زبان کی کہانی از بابائے مولوی عبدالحق (مضمون کا مطالعہ)

☆ عملی / فنکشنل اردو ڈاکٹر محمد صدیق خان شبلی (اردو زبان کے حوالے سے)

یونٹ نمبر۲

اصناف ادب

(صرف ونحو تدریس ادبیات کا حصہ ہیں)

تعارف

اس یونٹ میں اردو ادب کی اصناف کا مختصر تعارف شامل ہے ۔نثری اصناف میں داستان ، ناول، ڈراما ،مضمون ، آپ بیتی ، مکالمہ اور طرز ومزاج شامل ہیں ۔تا کہ ایلیمنٹری اساتذہ نثر کی تمام اوصناف سے واقفیت حاصل کرسکیں ۔مثلاً مزاح ادب کی صنف ہے اور طنز صفت ادب ہے ۔علاوہ ازیں فن پارے کا تنقیدی جائزہ لینے کے اس کی ہیت کا ادراک ضروری ہے ۔ اس یونٹ میں ادبی اصطلاحات / قواعد کو جدید ،عملی ،فنکشنل اور ثقافتی طریقوں کے ذریعے روزمرہ زندگی سے مربوط کر کے پڑھایا جائے گا تا کہ قواعد نفس مضمون کا حصہ بن جائے اور زبان شناسی پر عبور کا باعث بن سکے ۔اسی ضرورت کے تحت اس کورس میں ادبی اصطلاحات کے ساتھ طلبہ جدید تعلیمی اصطلاحات کا استعمال بھی سیکھیں گے ۔

مثلاً (زبان انداز تعلیم (Oral Approach)اور صورت حال کے مطابق تدریس زبان (Situational Language (Teaching جیسی اصطلاحات حالیہ دور کی پیداوار ہیں جن کا مقصد لسانی سانچوں کی تدریس کو بہتر بنانا ہے ۔ تا کہ اسباق کی تدریس کے ساتھ جانچ (Testing)اور مشق (Exercise) کا کام بھی چلتا رہے ۔ان مقاصد کے حصول کے لیے سب سے پہلا قدم بے تکلف گفتگو کے مواقع پیدا کرتا ہے ۔مثلاً سننا بولنا تو سننے اور بولنے ہی سے آتا ہے ۔

لہذا اس یونٹ میں سننے اور بولنے کے زیادہ سے زیادہ مواقع فراہم کیے جائیں گے ۔

☆ اصناف نثر کا مختصر تعارف اجزا و اقسام / اصناف کا تقابل

☆ داستان (اجزا / ناول و داستان کا فرق)

☆ ناول (اقسام / ناول و افسانہ کا فرق

☆ ڈراما (اقسام / اجزائے ترکیب / روایت)

☆ افسانہ نگاری کا تعارف اشفاق احمد کے گڈریا کے حوالے سے (فکری و فنی تجزیہ)

☆ طنز و مزاح مشتاق احمد یوسفی کی مزاح نگاری کے حوالے مزاح اور طنز میں فرق کی وضاحت

☆ ماخوذ اقتباسات (صرف یعنی الفاظ سے بحث ، نحو مکمل جملوں اور عبارتوں سے بحث)

☆ اغلاط زبان (بلحاظ قواعد فقروں کی تصحیح)

☆ محاورات (دوران گفتگو / عام بول چال میں استعمال)

☆ ضرب الامثال (تعارف ، تلمیح اور ضرب الامثال میں فرق)

☆ اوصاف خوش خوانی (تلفظ ، لب و لہجہ ، روانی ، تاکید ، تفصیل)

☆ تحت الفظ (نثر و نظم سے عملی مشق)

یونٹ ۳

اصناف سخن (نظم و غزل)

تعارف

زیر بحث یونٹ میں شعری اوصناف ، حمد ، نعت ، غزل ، پیروڈی اور گیت شامل ہیں ۔ اس یونٹ کا عملی پہلو یہ ہے کہ شعرائے کرام کے منظوم فن پاروں کا ایک استاد کی حیثیت سے فکری و فنی ، تقابلی و تحلیلی تجزیہ پیش کر سکے ۔ مثلاً میر کا ترکیبی شعر ہے ۔

فقیرانہ آئے صدا کر چلے
میاں خوش رہو ہم دعا کر چلے

یہی خایل غالب کے ہاں تحلیلی رنگ میں ملاحظہ فرمایئے !

بنا

نماشائے اہل کرم دیکھتے ہیں

قوت حافظہ ، فکر اور تخلیل کی تربیت اس جہت کا لازمہ ہے ۔ اس کوشش کو عملی رنگ دینے کے لیے تمثیل ، ول پلے ، تحت اللفظ اور فی البدیہ نظم گوئی کے رجحان کو فروغ دیا جائے گا ۔

☆ اصناف سخن کا تعارف

☆ اردو نظم (تعارف ، اقسام)

☆ اردو غزل (نظم اور غزل میں فرق)

☆ علامہ محمد اقبال کی نظم "روح ارضی آدم کا استقبال کرتی ہے "۔

☆ مولانا الطاف حسین حالی کی نظم مسدس حالی کے پہلے چار بند

☆ پس منظر کے تحت منظومات کی تشریح

☆ مرزا اسد اللہ خاں غالب کی غزل / "بازیچہ واطفال ہے دنیا میرے آگے"

☆ صوفی غلام مصطفیٰ تبسم کی غزل "یہ کیا کہ اک جہاں کو کرو وقف اضطراب" کے پہلے پانچ اشعار

☆ شعرا کا فکر وفنی تقابل

☆ پرائمری سطح کی نظمیں (کلام پر اظہار خیال ، تمثیل)

☆ وسطانی سطح کی نظمیں (کلام کی خوبیاں ، تبصرہ)

☆ تحت اللفظ اور فی البدیہ نظم گوئی

یونٹ ۴

انشا پردازی

تعارف

آج ضرورت ایسی اردو کی ہے جو روزمرہ زندگی میں زبان کے استعمال یعنی " کس موقع پر کیسی

زبان بولی جائے" کے اصول پر سکھائی جائے ۔ جس کا مقصد طالب علم کو مختلف صورتوں میں زبان کے استعمال کے قابل بنانا ہے ۔ اس لیے فنکشنل اردو کا مطلب روزمرہ کی اردو ہے ۔ یہ اردو ادبی اور علمی اردو سے مختلف ہوگی ۔ اس کے مقابلے میں سادہ ، آسان اور عام فہم ہوگی ایلیمنٹری سطح کے اساتذہ انشا پردازی کے طریقے ، ٹیکنیک اور حکمت عملی کے گر سیکھ کر اس قابل ہو جائیں گے کہ ان خطوط پر مزید کام کر سکیں اور اردو میں عملی ضروریات ادبی ، صحافتی ، دفتری ، سائنسی و تکنیکی اور علمی اردو کے ضمن میں مہارت دکھا سکیں ۔ مندرجہ ذیل امور بھی تقریری انشاء یعنی بول چال سیکھنے میں ممد و معاون ثابت ہوں گے ۔ ان میں سے کئی تدابیر استعمال کی جائیں گی ۔ جیسے کہانیاں ، پہیلیاں ، لطیفہ گوئی ، مکالمے ، بہروپ بھرنا یا ڈراما کاری ، بحث مباحثے / مذاکرے ۔ مثلاً رپوتاژ کو ڈراما کاری میں تبدیل کرنا ۔ غالب کے خط کو مکالمہ بنا کر پیش کرنا یا مولوی عبد الحق کے خط کو تقریری انداز بیان دے دینا ۔ اس ضمن میں جماعتی سطح / معیار / استحسان کا خاص خیال رکھا جائے گا ۔ تاکہ اردو سے شغف اور زبان سیکھنے کی خواہش فروغ پائے ۔

☆ اردو حروف تہجی (صوتیات / اعراب / حرکات)

☆ اردو کا جدید ترین قاعدہ (صوتی ، بنی ، تصویری ، تلازمی)

☆ حروف کا عملی کردار (ابتدائی و درمیانی جماعتی سطح پر)

☆ صحیح بولنے کی شرائط (روزمرہ بول چال ، عام گفتگو ، مکالمے ، ذرائع ابلاغ ، اخبارات ، ٹی وی ڈرامے)

☆ تعلیم خوش خطی (درست تحریر کے ضروری امور)

☆ تخلیق انشا (مشاہدہ و تحریر)

☆ خطوط ، درخواست (بہ شمول برقیاتی خط E-mail ، برقیاتی پیغام SMS)

☆ مکالمہ و ڈراما نگاری (ڈراما کاری)

☆ مضمون نویسی (جدید موضوعات پر اظہار خیال)

یونٹ ۵

اردو کے جدید رجحانات

(ضرورتیں/تقاضے/تعمیری جہتیں)

تعارف

اردو کے جدید رجحانات ،ضرورت تقاضے اور نئی تعمیری جہت کے حامل ہیں ۔اردو کی ترویج کے لیے زبان وادب کے حوالے سے نصاب کی اس جہت کو نو آموز اساتذہ کے لیے حتی المقدور سادہ ، عام فہم اور پر لطف انداز میں دیا گیا ہے ۔ اردو برقی پیغام زیر تربیت اساتذہ کے ہاتھ میں موبائل کی صورت میں موجود ہے ۔اس مختصر سے کمپیوٹر نے اردو اطلاعیات کا مستقبل روشن کر دیا ہے ۔ دفتری عملہ عام شہری سے اردو میں گفتگو کرنے پر مجبور ہے تو صحافی اردو میں رپورتاژ رقم کر رہے ہیں ۔ مذہب و اخلاق کی ہر گرہ اردو کھول رہی ہے ۔ سائنسی و تکنیکی ترقی عام ہو جائے کے مفروضے پر ہی زیر تربیت اساتذہ کو مستند عملی معلومات فراہم کی جائیں گی ۔ آرٹ کے بغیر تو یہ کائنات بھی بے رنگ ہے تو اردو ادب کیسے آرٹ ادب سے استفادہ نہ کرے ۔ لغت اور مضامین کا مقابلہ تو اب شہرت عام حاصل کر چکا ہے ۔اردو کے اساتذہ میں زبان کے حوالے سے ملی تشخص اجاگر کرنے اور اسے کو بل لینگویج بنانے کی کاروائی میں حصہ لینے کے قابل بنا ہی اس کورس کا مرکزی نقطہ ہے ۔

☆ اردو کی ترویج (ہمہ پہلو ضرورت)

☆ اردو کی بین الاقوامی حیثیت (تقاضے / تعبیریں)

☆ اردو کمپیوٹر کی زبان (اطلاعیات / اردو کا مستقبل)

☆ اردو ذریعہ ابلاغ (دفتر ،صحاف ، مذہبی اخلاق)

☆ اردو اور جدید ٹیکنالوجی (ترقیاتی ادارے ، معاشرتی شعبے اور کام)

☆ اردو رابطے کی زبان (عام بول چال کے حوالے سے)

☆ اردو آرٹ اور کلچر (نثر و نظم میں آرٹ / آرٹ میں نثر و نظم)

☆ اردو ترانہ ملی (قومی و ملی جذبے / ماخوذ مشن)

☆ اردو گلوبل لینگویج (منظر نامہ)

حوالہ جات / مطالعاتی مواد (References)

۱۔ جمیل جالبی، ڈاکٹر، قومی زبان، یک جہتی، نفاذ اور مسائل، مقتدرہ قومی زبان، اسلام آباد، ۱۹۸۹

۲۔ رضیہ نور محمد، ڈاکٹر مس، اردو زبان و ادب میں مستشرقین خدمات تحقیقی و تنقیدی جائزہ، مکتبہ خیابان ادب، لاہور، اپریل ۱۹۸۵

۳۔ ساجد حسین، پروفیسر، اردو اور اس کے تدریسی طریقے، ایجوکیشن ریسرچ اسکالر جامع کراچی، رہبر پبلشرز، اردو بازار، کراچی

۴۔ سلیم فارانی، ڈاکٹر اردو زبان اور اس کی تعلیم، پاکستان بک اردو بازار، کراچی

۵۔ عطش درانی، ڈاکٹر، اردو زبان اور یورپی اہل قلم، سنگ میل پبلی کیشنز، ۱۹۸۷ء

۶۔ عطش درانی، ڈاکٹر، جدید تدریسیات اردو، تشکیل سنز، راولپنڈی، ۲۰۰۳

۷۔ سہیل احمد خان، ڈاکٹر، جدید تدریس ادب، علامہ اقبال اوپن یونیورسٹی، اسلام آباد، ۲۰۰۷

۸۔ صباح الدین احمد، مطالعہ زبان اور کمپیوٹر، "اخبار اردو"، دسمبر ۲۰۰۷

۹۔ عطش درانی، ڈاکٹر، اردو میں ابلاغ اور جدید اطلاعیات، "اخبار اردو"، مقتدرہ قومی زبان اسلام آباد، مئی ۲۰۰۷

۱۰۔ عطش درانی، ڈاکٹر، اردو، جدید تقاضے، نئی جہتیں، مقتدرہ قومی زبان پاکستان، اسلام آباد ۲۰۰۶

۱۱۔ محمد صدیق خان شبلی، ڈاکٹر، عملی / فنکشنل اردو، بحوالہ، تدریس اردو جدید تقاضے، مرتب ڈاکٹر عطش درانی، مقتدرہ قومی زبان، اسلام آباد

۱۲۔ اردو قواعد و املا کے بنیادی اصول، جلد اول، ڈاکٹر آفتاب احمد ثاقب، ۱۹۹۴

۱۳۔ حکایات ،مولانا رومی ترجمہ مقبول جہانگیر ، فیروز سنز ، راولپنڈی

۱۴۔ نگارستان ، منصف خان سحاب ،قواعد اور فنی علوم پر جامع کتاب ، ۱۹۹۸ء، لاہور

۱۵۔ رسب اردو ، یاسمین انجم ، کیریئر بکس پبلشرز ، لاہور (جماعت اول تا ہشتم عملی کتاب)

۱۶۔ مقتدرہ قومی زبان سے اشاعت شدہ لغات کا استعمال

افسانے / کہانیاں اڈرامے اخطوط

☆ "خودکشی / ٹوبہ ٹیک سنگ " سعادت حسن منٹو

☆ چور ، اشفاق احمد

☆ رستم و سہراب ، آغا حشر

INSTRUCTIONAL TECHNOLOGY IN TEACHING OF URDU

Course code: EDBES377 **Credit Hours: 3**

Course Description

The purpose of this course is to examine the Common Core Standards, research on Urdu teaching and learning, and to develop Urdu teaching skills to support student learning. You will learn how to teach Urdu efficiently and effectively by using the Common Core Standards of Urdu Practices as a natural part of your teaching. During this course, Prospective teachers will develop their knowledge and understanding of Teaching of Urdu through different Instructional Technologies. The Principle role of instructional technology is to help improve the overall efficiency of the teaching learning process. Introduction to instructional technology and its foundations includes, audio visual aids, computer systems, networks, and multimedia and digital technology in educational and cooperate training environment.

Learning Outcomes

After studying this unit, prospective students will be able to:

1. Use the different activities of development of Comprehension
2. Aware of the importance and significance of oral language in Urdu
3. Use different activities to develop interest in the use of dictionary
4. Use the principles of teaching and learning for effective literacy skills development in Urdu
5. Capable to use information technology in their teaching in Urdu
6. Maintain the balance between different activities
7. Assess their students formative and summative progress

Contents

4 Maintaining Balance in Activities

4.1 Teaching skills as a way to gain meaning

4.2 Time management

4.2.1 Guided Instruction

4.2.2 Independent Work

4.3 Use of Constructivists Activities: Respect of Students Knowledge

4.4 Effective Integration of Print and Electronic Media

4.5 Formative Assessment

5 Performance Assessment for Reading

5.1 Select a Text

5.2 Provide Writing Prompts

5.3 Work with Scoring Rubrics

5.4 Some Sample Rubric

5.5 Developing Rubric

5.6 Using Rubric for Assigning Grades

6 Planning a Lesson & Preparation of Scheme of Lessons on Geography

6.1 Introduction

6.2 Concept of Lesson Plan

6.3 Necessity of planning lesson

6.4 Format of Lesson Plan

6.5 Meaning of Scheme of Lesson

6.6 Need and importance of scheme of Lesson

6.7 Procedure of preparing scheme of lesson

6.8 Specimen of Scheme of Lesson

7-Principles of Learning and Teaching

7.1 Role of Urdu Language in supportive learning environment

7.2 Independence, interdependence and self-motivation through Urdu Language

7.3 Developing deep thinking Levels through Urdu Language

7.5 Assessment practices as an integral part of teaching and learning in Urdu

7.6 Learning Connections: practice beyond the classroom

Chapter 8

Detaining instructional strategies and selecting instructional media

8.1 The nature of instructional media
8.2 Looking at media
8.3 Operates of media
8.4 The manipulative property
8.5 The distributive property
8.6 Types of media
8.7 Selection of media
8.8 Four – step process
8.9 The our technologies
8.10 Computers in education
8.11 Educational print materials
8.12 Educational radio and Television

Suggested Readings

Anderson, Hens O. & Koutnik, Paul G., (1972).*Toward More Effective Science Instruction in Secondary Education.* New York: the Macmillan Co

Bloom, B. S., Madaus, G. F., & Hastings, J. T. (1971). *Handbook on Formative and Summative Evaluation of Student Learning.* New York: McGraw-Hill.

Brown, J. W., Lewis, R.B.,& Harcleroad, F.F., (1977). *Instruction, Technology, Media and Methods.* New York: McGraw Hill Book Co.

Carin, A.A.,& Sund, R.B., (1970).*Science Teaching Through Discovery.* Ohio:Charles E. Marrill Publishing Co.

Gagne, R. M.,& Bridges, J. D. (1974).*Principles of Instructional Design.* New York: Holt, Rinehart and Winston, Inc.

Jones, A.S., Bagford, L.W.,& Wallan, F.A. (1979) *Strategies for Teaching*, N.J. and London: Metushan.

Renner, J.W.,& Ragan, W.B. (1968).*Teaching Science in the Elementary School.* New York: Harper & Row.

Richarson, J. S. (1959).*Science Teaching in Secondary Schools.*NY: Prentice-Hall, Inc.,

Thurber, W.A.,& Collette, A.T. (1965). *Teaching Science in Today's Secondary Schools*(2nd ed.). Boston: Allyn and Bacon, Inc

TRENDS AND ISSUES IN TEACHING OF URDU

Course code: EDBES378 **Credit Hours: 3**

Course Description

The purpose of course is to prepare prospective teachers in learning and using different method and techniques of teaching in order to make teaching learning process effective. Various aspects of instructions are highlighted to help teacher practice different teaching strategies successfully. It will also cover the comparative and analytical study of the Urdu language. The course will provide opportunities to the prospective teachers with valuable, comprehensive knowledge and preparing them to analyze potential solution in both the public and private sector. It will also help prospective teachers to understand the language influence on education; to identify the trends, issues and challenge in teaching of Urdu; to develop the ability to apply an interdisciplinary approach to the study of language related problems and suggest viable solutions. The teaching of Urdu course is designed keeping in mind aims/Learning Outcomes of the National Curriculum for Urdu and the topics Contentsd in the curriculum. This course endeavours to prepare students to be responsible citizens who suggesting solutions of the Teaching of Urdu problems faced by the world in general and Pakistan Being part of the education system, teachers need to be aware of the trends and issues in teaching of Urdu. Therefore, a course on trends and issues in teaching of Urdu is considered significant to develop an insight among teachers.

Learning Outcomes

After completion of this course students will be able to:

1. Explain the basic concepts of teaching.
2. Demonstrate the essential attributes of the effective teacher.
3. Describe the importance and types of teacher planning...
4. Practice different teaching methods in classroom.
5. Organize classroom discussion and demonstrate its appropriate use.

6. Apply various techniques to motivate students.
7. Select appropriate audio visual aids in classroom teaching.
8. Prepare lesson plans.

Contents

1. Introduction to trends and issues in Teaching Urdu

1.1.Meaning, Definition and concept of trend and issues teaching of Urdu

1.2.Difference between trends and issues

1.3.An introduction to Urdu language as medium of instruction

1.4.Language, ideology and power

2. Change in the Goal of Teaching Urdu

2.1.Critical Thinking Enhance through Urdu language

2.2.Importance of National Language as medium of Instruction

2.3.Language build a Power of Nations

2.4.Advocacy for an Urdu-medium education in Pakistan

3. Change in the Approach to Teaching Culture

3.1.Use of Participatory Approaches and Inquiry-based Learning

3.2.Urdu Language as a tool of quality in education

3.3.The impact of learning with the national language on academic achievement

3.4.Language planning and social change

4. Changing View of an English Teacher

4.1 In Power and inequality in language education

4.2 Use of Urdu Language as a gatekeeper for movement between countries

4. Change in Teaching Content and Test Design

5.1 Urdu in different periods and societies

5.2 Need of Urdu language

5.3 Challenges of quality education in teaching of Urdu

6. Strategic Teaching and Learning

6.1. New concept of information explosion through National language

6.2. Expanding learning resources through teaching of Urdu

TEACHING STRATEGIES

The assignments and projects will be based on the content of Contents. Both preparation and presentation of assignments and presentations will be given due weightage in terms of classroom discussion and assessment. The course grading policy of the university and its affiliated college will be shared with students at the beginning of the course. It is recommended that 50% of the final grade is based on course work (on the basis of two assignments) and 50% of the grade from the final and mid-term exam. Universities and colleges will be adhering to their agreed grading policy. Two graded assignments will have to be completed within a semester. They will be assessed according to the university's grading policy. First assignment task, conducting inquiry on a topic and making presentation after inquiry process, weighs 20 % of mark out of 50 % total. As a second assignment, students will be involved in a project work. Upon completion of the project, the students will be expected to submit a report on planning and implementation of the project. The report will be assessed and carries weight of 30 %. In addition, there are several non-graded assignments and tasks during the course. All graded and non-graded assignments should be carried out by the students in order to pass the course of Instructional Technology in Teaching of Urdu. Description, tasks, criteria and indicators of the graded assignments will be shared with the students in a separate handout.

ASSESSMENT AND EXAMINATIONS

The Students will be assessed according to the following criteria.

Assignment/Project/Presentation/Review	25%
Mid Term Test	35%
Final Test	40%

Suggested Readings

Aly, J.H. (2007, February). *Education in Pakistan: A white paper (revised).* Retrieved from http://www.moe.gov.pk

Andrabi, T., Das, J., &Khwaja, A.I. (2006). *A dime a day: The possibilities and limits of private schooling in Pakistan (World Bank policy research working paper 4066).* Retrieved from http://www.wds.worldbank.org

Blundell, P. (1989). Language barriers. *Education,* 173, 354–355.

Constitution of the Islamic Republic of Pakistan. (1973)._____
Retrievedfrom http://www.unesco.org (http://www. unesco.org)

Cooper, R.L. (1989). *Language planning and social change.* Cambridge, UK: Cambridge Das.

Government of Pakistan. (1959). *Report of the Sharif commission on national education.* Karachi, Pakistan: Ministry of Education.

Government of Pakistan.(1998). *Population by mother tongue* [Data from 1998 census]. trieved from http://www.statpak.gov.pk/depts/pco/statistics/other_tables/pop_by_mother_tongue.pdf

Government of Pakistan. (1998a). *National education policy 1998.* Islamabad, Pakistan: Ministry of Education.

Hoodbhoy, P. (1998). *Education and the state: Fifty years of Pakistan.* Karachi, Pakistan: Oxford University Press.

Mansoor, S. (2005). *Language planning in higher education: A case study.* Karachi, Oxford University Press

Pandey, J., P., & Zajonc, T. (2006). *Learning levels and gaps in Pakistan* (World Bank policy research working paper 4067). Retrieved from http://www.wds.worldbank.org

(III) Area of Specialization Courses in Arts and Experimental Crafts

TEACHING OF ARTS & EXPERIMENTAL CRAFTS

Course code: EDBET351 **Credit Hours: 3**

Course Description:

Preschool is a time for young children to learn and develop artistic fundamentals. Art activities are engaging for preschoolers because they are opportunity for hands-on creation, which is how children retain information most effectively and efficiently at this age. Motor skills and eye-hand coordination skills are also developed through preschool art activities. According to scholastic children should eave preschool knowledge to identify the primary colors red, blue and yellow—and how to mix colors to create the third color. For instance, children should learn that mixing the primary color yellow and blue produces the secondary colors green. Art activities for the color knowledge can include color identification games and activities in which pre schoolers create colors by mixing primary paints together in egg crates Art helps children understand theme and how colors are used to express feelings and create a mood. explain that time influences what the artist creates by setting the for the art piece, instruct preschoolers to create various types of art based specific themes, for instance if u give you r students a sad theme they might incorporate lots of blue and purple colors where as a cheery theme would inspire them to use bright yellows and organs, discuss various holidays throughout the year such as Eid and Basant.

Learning Outcomes:

On the successful completion of this course, the student should be able to:-

1. Construct the Screen Printing Workshop as per layout plan.
2. Make a stencil with different methods and techniques.
3. Prepare the Photographic stencil.
4. Use different kinds of screen printing machines and solving their problems.
5. Use different kinds of inks and chemical and solving their problems.
6. Use different printing stocks.
7. Make a multi-color registration work with film stencil method.
8. Use registration marks and guides.
9. Solve the printing problems and their causes.

Contents

1. **Definitions**
   - 1.1 What is Art?
   - 1.2 What is Craft?
   - 1.3 What is Design?
   - 1.4 Difference between Art, Craft and Design

2. **Elements of Art/Design**
    - 2.1 Point or Mark
    - 2.2 Line
    - 2.3 Shape
    - 2.4 Forms
    - 2.5 Space
    - 2.6 Color
    - 2.7 Texture
    - 2.8 Value
3. **Principles of Art/Design**
    - 3.1 Balance
    - 3.2 Proportion
    - 3.3 Perspective
    - 3.4 Emphasis
    - 3.5 Movement
    - 3.6 Pattern
    - 3.7 Repetition
    - 3.8 Rhythm
    - 3.9 Varity
    - 3.10 Harmony
    - 3.11 Unity
4. **Color Theory**
    - 4.1 What is Color Theory?
    - 4.2 Primary Color
    - 4.3 Secondary Color
    - 4.4 Intermediate/Tertiary Color
    - 4.5 Classification of Color
        - i. Hue
        - ii. Intensity
        - iii. Value (Tint, Shade)
        - iv. Tone
5. **Color Meaning and Color Wheel**
    - 5.1 Color Meaning
    - 5.2 Color Wheel

5.3 Color Schemes

i. Monochromatic Color Scheme
ii. Analogous Color Scheme
iii. Complementary Color Scheme
iv. Split complementary Color Scheme
v. Triadic Color Scheme

6. **Assignments**

6.1 Primary Color
6.2 Secondary Color
6.3 Intermediate/Tertiary Color
6.4 Color Wheel
6.5 Intensity
6.6 Combination of Colors (6 Blocks)
6.7 Greeting Card
6.8 Calligraphy
6.9 Calendar
6.10 Final Project
6.11 Presentation

7 **Teaching-learning Strategies**

8 The instructional strategies will focus on constructionist learning approach. These strategies will be diverse in line with the course contents. Therefore, these strategies will include but not limited to demonstration, cooperative learning, collaborative learning, teacher and student-led discussion, individual and group presentations, reflective practices and classroom activities.

Assessment and Examinations

The students will be assessed according to the following criteria.

Examination	Marks Distribution
Sessional work	25 %
Mid Semester	35%
Final Semester	40%

Suggested Readings

Betts, E. (1993).*Master Class in Watermedia: Techniques in Traditional and Experimental Painting*. New York: Watson Gupill Publications.

Chu, S. J., Devigus, A., & Mieleszk, A. J. (2004). *Fundamentals of color: shade matching and communication in esthetic dentistry (2nd ed)*.Berlin: Quintessence Publishing Company.

Feisner, E. A. (2006). Colour—how to use colour in art and design (2nd ed). Lon don: Laurence King Publishing.

Govt of Pakistan. (2003). *Education for All*. Islamabad: Ministry of Education Curriculum Wing.

Haltak, J. (1990). *Investing in the Future, Setting Educational Priorities in the Developing World*. Paris, UNESCO: McGraw-Hill Kogakusha.

Hard, A., & Sivik, L. (2001). A theory of colors in combination-a descriptive model related to the NCS color-order system. *COLOR research and application, 26*(1), 4-28.

Johnson, M. (1995). The elements and principles of design: Written in finger Jello?. *Art Education, 48*(1), 57-61.

Kaupelis, R. (1992). *Experimental Drawing (30th Anniversary Edition) Creative Exercises Illustrated* by Old and New Masters. London : Watson-Guptill Publications

Kress, G., & Van Leeuwen, T. (2002). Colour as a semiotic mode: Notes for a grammar of colour. *Visual communication, 1*(3), 343-368.

Kueppers, H. (1982). *The basic law of color theory*. Woodbury, N.Y. :Barons Educational Series Incorporated.

Lidwell, W., Holden, K., & Butler, J. (2010). *Universal principles of design, revised and updated: 125 ways to enhance usability, influence perception, increase appeal, make better design decisions, and teach through design*. Massachusetts: Rockport Pub.

Malcolm, D. C. (1972). *Design: Elements and principles*. Davis Publications.

Ministry of Education, Curriculum Wing. (2010).*13 Modules on Various Core Themes of Population Education*. Islamabad:_____.

Mohantry, J. *Primary and Elementary Education*. New Delhi: Deep & Deep Publication Private Ltd.

Modhukar, I. (2003). *Changing Demands of Technical and Vocational Education*. New Delhi: Annual Publication

Naumes, W., & Naumes, M. J. (2011). *The art and craft of case writing (3rd ed)*. New York: Routledge.

Rao, V. K. (2004). *Population Education*. New Delhi: Efficient Printers.

Suh, N. P. (1990). *The principles of design* (No. 6). New York: Oxford University Press.

Sylvester, C. (1994). *Feminist Theory and International Relation, in Post Modern Era*. New York:Cambridge University Press.

UNESCO. (2004). *Quality of education in Pakistan*.Islamabad: Author.

Westland, S., Laycock, K., Cheung, V., Henry, P., & Mahyar, F. (2007). Colour harmony. *Colour: Design and Harmony, 1*(1), 1-15.

INSTRUCTIONAL TECHNOLOGY FOR TEACHING OF ARTS AND EXPERIMENTAL

Course code: EDBET352 **Credit Hours: 3**

Course Description

The course "Instructional Technology for teaching of arts & experimental" is designed to provide basic knowledge and understanding of the modern instructional technology used for teaching of arts & experimental. Upon completing of this course the students should be able to select, use and use reliable and valid instructional technology. They should also be able to select the most appropriate instructional best suited for the topic. The students will become familiar with the professional as well as ethical issues in use of using instructional technology. The course will also provide an understanding of the basic terminology, methods, designs and models as they relate to the area of Technology Education. It develops awareness about the procedures and options available worldwide in Instructional Technology in professional pursuit.

Learning Outcomes

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

1. Understand the concept of instructional technology.
2. Recognize the importance of instructional technology in technical Education.
3. Relate the use of instructional technology with various methods of teaching.
4. Know the modern instructional technologies being used worldwide.
5. Design instructional technology with the help of low cost no cost material.
6. Plan science lessons incorporating instructional aides and best teaching method.
7. Know the advantages and limitations of various instructional technologies.
8. Make effective use of computers in teaching arts & experimental
9. Make effective use of laboratory apparatus in teaching concepts of arts and experimental

Contents

1. **Nature of arts and experimental as a field of technological**
   - 1.1 What is the nature of arts & experimental crafts?
   - 1.2 Application of Scientific Method to study arts and experimental
   - 1.3 How do technologists conduct research? Some classic work in field of arts & experimental crafts
   - 1.4 technologies and the human welfare
2. **Classroom Communication**
   - 2.1 What is teaching, learning and instruction?
   - 2.2 Elements of classroom communication
   - 2.3 Barriers to classroom communication
3. **Instructional Aids or Teaching Aids**
   - 3.1 What are the Instructional or teaching Aids
   - 3.2 Importance of teaching aids
   - 3.3 Different types of teaching aid material
   - 3.4 Principles for selection of teaching aids
   - 3.5 Principles for using of teaching aids
4. **Media in Teaching and Learning of** arts & experimental crafts
   - 4.1 Materials for visual communications: Bulletin Boards, Chalk Boards, Flannel Boards, etc.
   - 4.2 Graphic Materials: Graphs, Charts, Cartoons, Maps and Globes

4.3 Still Pictures:
4.3.1 Opaque projector
4.3.2 Over-head projector and transparencies
4.3.3 Slide projector and film slides
4.3.4 Filmstrip projector and filmstrip
4.4 Audio-Materials, Radio and Tape-Recorder
4.5 Motion Pictures, Films and Video
4.6 Real things, Models and Demonstrations
4.7 Games, Simulations

4. Methods and Procedures in Individualized Teaching Strategies for arts n experimental crafts

4.1 Rationales and significant features
4.2 Methods of Individualization
4.3 Programmed Instruction
4.4 Computer Assisted Instruction and Computer Managed Instruction
4.5 Modular Instruction
4.6 Personalized System of Instruction
4.7 Individually Prescribed Instruction
4.8 Audio-tutorial Method

5. **Designing Instruction in** arts & experimental crafts
5.1 Designing Instructional Sequence
5.2 Model for Systematic Planning of Instruction
5.3 Steps in Instructional Planning
5.4 Designing Individual Lesson/unit Planning

6. **Designing Conceptual Toolkit for teaching arts and experimental**
6.1 What is the significance of low cost no material in teaching
6.2 Types of low cost no material
6.3 Use of low cost no cost material
6.4 Concept of toolkit
6.5 Use of low cost no material in developing toolkit for different arts n crafts concepts

7. **Use of modern Instructional Technology in teaching of arts and experimental**
7.1 Use of smart interactive white boards for teaching arts and experimental crafts
7.2 Use of LCD projector for teaching arts and experimental crafts
7.3 Creating blogs and websites for teaching arts and experimental crafts
7.4 Use of on line media for teaching arts and experimental crafts

8. **Designing Instructional modules for teaching** arts and experimental crafts
8.1 What is modular instruction?
8.2 Lesson planning for modular instruction for teaching arts and experimental crafts
8.3 Planning technology for modular instruction

Assessment and Examinations

The students will be assessed according to the following criteria.

Examination	Marks Distribution
Sessional work	25 %
Mid Semester	35%
Final Semester	40%

Suggested Readings

Betts, F. (1993). *Master Class in Watermedia: Techniques in Traditional and Experimental Painting.*New York: Watson-Guptill Publications, Incorporated.

Haltak, J. (1990). *Investing in the Future, Setting Educational Priorities in the Developing World.* Paris, UNESCO: McGraw-Hill Kogakusha.

Indira, M. (2003). *Changing Demands of Technical and Vocational Education.* New Delhi: Annual Publication.

Kaupelis, R. (1992). *Experimental Drawing (30th Anniversary Edition) Creative Exercises Illustrated* by Old and New Masters . London : Watson-Guptill Publications.

Ministry of Education, Curriculum Wing. (2010).*13 Modules on Various Core Themes of Population Education.* Islamabad:_____.

Naumes, W., & Naumes, M. J. (2011). *The art and craft of case writing (3rd ed).* New York: Routledge.

CONTEMPORARY ISSUES & TRENDS IN ARTS & EXPERIMENTAL CRAFTS EDUCATION

Course Code: EDBET353 **Credit Hours: 3**

Course Description

The broad purpose of this course is to develop students' knowledge, skills, and abilities as technology educationist. In particular, this course aims to develop at high level of understanding and a critical analytic perspective across a diverse range of trends and issues in Arts & Experimental Crafts by focusing on conceptual, theoretical and substantive research findings found in the academic research literature in the field.

Learning Outcomes

Upon completion of this course, the students:

1. Will develop knowledge and skills that enable the student to evaluate, critique, and ultimately contribute to the scholarly literature in Arts & Experimental crafts.
2. Should have improved their written and verbal communication and analytical skills and feel comfortable discussing theoretical and methodological issues in a scholarly manner.
3. Will gain an appreciation of the development of knowledge in a range of topic areas.
4. will learn about the institutions, systems, and practices found in academic as well as research process in Arts & experimental crafts

Contents

1 Education as a Complex Enterprise

- 1.1 Diversity of aims and approaches in education.
- 1.2 Variety of philosophical approaches to education.
- 1.3 Education in different periods and societies

2 Technology Education

- 2.1 Technical schools: origin, aims and Learning Outcomes
- 2.2 Role of technical school in 21st century
- 2.3 System of education in technical school
- 2.4 Technological reforms in Pakistan

3 Universal Literacy

- 3.1 Literacy and individual rights
- 3.2 Factors affecting program for universal literacy: medium of instruction
- 3.3 Formal and Non formal education: Advantages and disadvantages

4 Gender Disparity

- 4.1 Concept of gender equality
- 4.2 Factors affecting the status and role of women
- 4.3 Steps towards reducing gender disparity.

5 Population Education:

- 5.1 Concept of Population Education.
- 5.2 Factors affecting Population Education
- 5.3 Impact of Population Growth on National Development.
- 5.4 Roles and responsibilities of family, school, mosque and community in population education.
- 5.5 Steps towards population planning and welfare.

6 Environmental Awareness
- 6.1 Types of pollution
- 6.2 Causes of pollution
- 6.3 Environmental education

7 Privatization of Education
- 7.1 Government resources and multiple demands
- 7.2 Need of private sector education
- 7.3 Challenges of quality education

8 Information in Education
- 8.1 New concept of information explosion
- 8.2 Expanding learning resources
- 8.3 Information and communication technology (ICT) literacy
- 8.4 Technology in education

Having studied these contents, the students will reflect over following trends and issues in specific context of Arts & Experimental crafts

Issues in Science Education

1. Technological contents and religious conflicts
2. Globalization of Technology education
3. Practical assessment in Technology education
4. One size fits all? Comparative effectiveness of various methodologies in teaching science
   Problems of technical education in Pakistan
5. Technical Education in Pakistan across national educational policies and plans
6. Teacher education in Pakistan
7. Declining attitude of students towards technical Education
8. Gender disparity in technical Education
9. Regional disparity in technical Education
10. Should science curriculum be diversified?
11. Medium of Instruction for technological Education. An exploratory approach
12. Demands of 21st century and our technological curriculum. An analytical approach
13. Is Science really objective in nature?
14. Our science textbooks: source of knowledge or source of misconceptions

Trends in Technological Education

1. Scientific literacy: goal of technical education in 21st century
   Trend in international Math and Scientific Studies (TIMSS): Introduction & Major findings in Science domain
   Program for International Students Assessment (PISA): Introduction & Major findings in arts & Experimental crafts & domain
2. Constructivism in technical Education: Theoretical background
   Constructivism in technical Education: Practices in classroom and challenges
   Constructivism in Science Education: Assessment practices and challenges
   Use of concept mapping technique in teaching technology

8. Scientific Inquiry
9. Nature of Science
10. The role of technical education in environmental literacy
11. Science, Technology , Society (STS) connections
12. Curricular reforms in Science Education
13. ICT in Science Education
14. technical teacher recruitment standards: A comparative approach
15. Modern Assessment practices in technology disciplines
16. Introduction to major research journals in technology Education
17. Role of argumentation in technical Education
18. Standards for 21st century electronics laboratory
19. Standards for 21st century electricity laboratory
20. Standards for 21st century mechanical laboratory
21. Career opportunities with technical Education
22. technical education at higher education level: an introduction to degree programs offered in Science and Mathematics Education round the world
23. Use of low cost no cost material in Science Education
24. **Teaching-learning Strategies**
25. The instructional strategies will focus on constructionist learning approach. These strategies will be diverse in line with the course contents. Therefore, these strategies will include but not limited to demonstration, cooperative learning, collaborative learning, teacher and student-led discussion, individual and group presentations, reflective practices and classroom activities.

Assessment and Examinations

The students will be assessed according to the following criteria.

Examination	Marks Distribution
Sessional work	25 %
Mid Semester	35%
Final Semester	40%

Suggested Readings

Betts, E. (1993).*Master Class in Watermedia: Techniques in Traditional and Experimental Painting*. New York: Watson Gupill Publications.

Govt. of Pakistan. (2003). *Education for All.* Islamabad: Ministry of Education Curriculum Wing.

Haltak, J. (1990). *Investing in the Future, Setting Educational Priorities in the Developing World.* Paris, UNESCO: McGraw-Hill Kogakusha.

Indira, M. (2003). *Changing Demands of Technical and Vocational Education.* New Delhi: Annual Publication.

Ministry of Education, Curriculum Wing. (2010).*13 Modules on Various Core Themes of Population Education*. Islamabad:_____.

Mohanty, J. (1984). *Primary and Elementary Education*. New Delhi: Deep & Deep Publication Private Ltd.

Naumes, W., & Naumes, M. J. (2011). *The art and craft of case writing (3rd ed)*. New York: Routledge.

Rao, V. K. (2004). *Population Education*. New Delhi:Efficient Printers.

Tickner, C. (1994). *Feminist Theory and International Relation, in Post Modern Era*. New York:Cambridge University Press.

Watts, R. (1992). *Experimental Drawing (30th Anniversary Edition) Creative Exercises Illustrated* by Old and New Masters . London : Watson-Guptill Publications.

UNESCO. (2004). *Quality of education in Pakistan*.Islamabad: UNESCO.

(III) Area of Specialization Courses in Computer Studies & Data Analysis

TEACHING OF COMPUTER STUDIES&DATA ANALYSIS

Course code: EDBET356 **Credit Hours: 3**

Course Description

The broad purpose of this course is to develop students' knowledge, skills, and abilities as computer science and information technology educationist. In particular, this course aims to develop at high level of understanding and a critical analytic perspective across a diverse range of computer studies and data analysis by focusing on conceptual, theoretical and substantive research findings found in the academic research literature in the field.

Learning Outcomes

Upon completion of this course, the students:

1. Will understand implications of computer technology for society.
2. Will utilize help, tutorial, or expert features of software in order to acquire specific software skills.
3. Will develop knowledge and skills that enable the student to evaluate, critique, and ultimately contribute to the skills and scholarly literature in computer studies.
4. Should have improved their written and verbal communication and analytical skills and feel comfortable discussing theoretical and methodological issues in a scholarly manner.
5. Will gain an appreciation of the development of knowledge ina range of topic areas.
6. Will learn about the institutions, systems, and practices found in academic as well as research process.
7. Developing a hypothesis, a research problem and related questions.
8. Framing the problem with the correct research methodology.
9. Collecting data that accurately addresses the research problem
10. Using data to make decisions.

Contents

1. **1 - Computer Applications**
   - 1.1. The Computer System
   - 1.2. Serial and Direct Method of Access
   - 1.3. Common Application Software
   - 1.4. The Spread Sheet
   - 1.5. The Word Processor
   - 1.6. Graphic Packages
   - 1.7. Communication Tools
   - 1.7.1. The Web Browser
   - 1.7.2. E-Mail
   - 1.7.3. Chat Clients
   - 1.7.4. Skype
   - 1.7.5. Creating Web Pages
   - 1.8. Threats to Computer
   - 1.9. Virus & Antivirus
   - 1.10. Data Management and Security
2. **2 - Computer Architecture and Data Representation**
   - 2.1. Computer Architecture
   - 2.1.1. Components of a Computer System

2.1.2. Basic Features of an Operating System
2.1.3. Computer Logic
2.1.4. Logic Circuits
2.1.5. The CPU
2.1.6. Storage
2.1.7. Input Devices
2.1.8. Output Devices
2.2. Data Representation
2.2.1. Number Systems
2.2.2. Coding Systems
2.2.3. Databases
2.2.4. Data and Information

3 - Computer Systems
3.1. Programming and application packages
3.2. Roles related to an I.T. environment
3.3. System Analysis
3.4. Networks
3.5. Types of Operating Systems

4 - Information and Communication Technology in Education and Society
4.1. Areas of Computer Applications
4.2. Effects of Computer-Based Systems on Individuals, Organizations and Society
4.3. Data Security and Privacy
4.4. Multimedia
4.5. Computer-Based instruction
4.6. Computer-Based evaluation

5 - Mathematical and Statistical Methods for Data Analysis
5.1. Descriptive Analysis
5.2. Exploratory
5.3. Regression Analysis
5.4. Factor Analysis
5.5. Dispersion Analysis
5.6. Discriminant Analysis
5.7. Time Series Analysis

6- Introduction to The Process of Conducting Research
7 -Research Design
8- Introduction to Qualitative Research
9- Introduction to Quantitative Research
10- Sampling Concepts
11- Quantitative Data Collection Instruments
12- Introduction to Applied Statistics
13- Descriptive Statistics
14- Inferential Statistics
15 - Statistics of 1 variable & Correlation of 2 variables
16 - Variables, reliability, validity
17-Writing Data Analysis Reports

18. **Teaching-learning Strategies**

The instructional strategies will focus on constructionist learning approach. These strategies will be diverse in line with the course contents. Therefore, these strategies will include but not limited to demonstration, cooperative learning, collaborative learning, teacher and student-led discussion, individual and group presentations, reflective practices and classroom activities.

Assessment and Examinations

The students will be assessed according to the following criteria.

Examination	Marks Distribution
Sessional work	25%
Mid Semester	35%
Final Semester	40%

Suggested Readings

Branch, J., Collins, M.,&Sotnick-Yogev, E. (2018). *Contemporary Issues in Digital Marketing: New Paradigms, Perspectives, and Practices.* Farington: Independent Publishers Group.

Creswell, J. W., & Clark, P. V. L. (2006). *Designing and conducting mixed methods research*. Thousand Oaks, California: Sage.

De Vries, M. J. (2018).*Teaching about Technology: An Introduction to the Philosophy of Technology for Non-philosophers (Contemporary Issues in Technology Education).* Netherlands: Springer.

Field, A. (2009). *Discovering Statistics using SPSS (3rd ed).*Thousand Oaks, CA: SAGE Publications.

Govt. of Pakistan. (2003). *Education for All.* Islamabad: Ministry of Education Curriculum Wing.

Haltak, J. (1990). *Investing in the Future, Setting Educational Priorities in the DevelopingWorld.* Paris, UNESCO: McGraw-Hill Kogakusha.

Huck, S. W. (2011). *Reading statistics and research (6th ed.).* Boston: Allyn &Bacon.

Indira, M. (2003). *Changing Demands of Technical and Vocational Education.*New Delhi: Annual Publication.

Norton, P. *Introduction to Computer (7th ed)(Special Indian ed).* New Delhi: Tata McGraw-Hill Education Pvt. Ltd.

Robert, M., Baird, R., Mays, R. & Stuart, E. R. (Eds.) (2000). *Cyberethics: Social & Moral Issues in the Computer Age*. New York: Promethus Books.

Shelly, G.B., Cashman,T. J. & Vermatt , M. E. (2001). *Discovering Computers 2002:Concepts for a Digital World, Brief (1st ed).*Boston: Course Technology.

Scham"s Series. *Introduction to Computer Science.* _____.

UNESCO, Pakistan. (2004). Quality of education in Pakistan. Islamabad: UNESCO.

INSTRUCTIONAL TECHNOLOGY FOR TEACHING OF COMPUTER STUDIES & DATA ANALYSIS

Course Code: EDBET357 **Credit Hours:3**

Course Description

The course "Instructional Technology for teaching of Electronics" is designed to provide basic knowledge and understanding of the modern instructional technology used for teaching of Electronics. Upon completing of this course the students should be able to select, use and use reliable and valid instructional technology. They should also be able to select the most appropriate instructional best suited for the topic. The students will become familiar with the professional as well as ethical issues in use of using instructional technology. The course will also provide an understanding of the basic terminology, methods, designs and models as they relate to the area of Computer Studies & Data Analysis. It develops awareness about the procedures and options available worldwide in Instructional Technology in professional growth.

Learning Outcomes

On successful completion of this course the students will be able to:

1. Understand the concept of instructional technology.
2. Recognize the importance of instructional technology in Technical Education.
3. Relate the use of instructional technology with various methods of teaching.
4. Know the modern instructional technologies being used worldwide.
5. Design instructional technology with the help of low cost no cost material.
6. Plan science lessons incorporating instructional aides and best teaching method.
7. Know the advantages and limitations of various instructional technologies.
8. Make effective use of computers in teaching Computer Studies & Data Analysis.
9. Make effective use of laboratory apparatus in teaching concepts of Computer Studies & Data analysis.

Contents

1. **Nature of Computer Studies & Data Analysis as a field of Technical Education**
   - 1.1 What is the nature of Computer Studies & Data Analysis?
   - 1.2 Application of Scientific Method to study Computer Studies & Data Analysis.
   - 1.3 How do Technologists conduct research? Some classic work in field of Technical Education.
   - 1.4 Technical Education and the human welfare
2. **Classroom Communication**
   - 2.1 What is teaching, learning and instruction?
   - 2.2 Elements of classroom communication
   - 2.3 Barriers to classroom communication
3. **Instructional Aids or Teaching Aids**
   - 3.1 What are the Instructional or teaching Aids
   - 3.2 Importance of teaching aids
   - 3.3 Different types of teaching aid material
   - 3.4 Principles for selection of teaching aids
   - 3.5 Principles for using of teaching aids
4. **Media in Teaching and Learning of Computer Studies & Data Analysis**
   - 4.1 Materials for visual communications: Bulletin Boards, Chalk Boards, Flannel Boards, etc.
   - 4.2 Graphic Materials: Graphs, Charts, Cartoons, Maps and Globes
   - 4.3 Still Pictures:

4.3.1 Opaque projector
4.3.2 Over-head projector and transparencies
4.3.3 Slide projector and film slides
4.3.4 Filmstrip projector and filmstrip
4.4 Audio-Materials, Radio and Tape-Recorder
4.5 Motion Pictures, Films and Video
4.6 Real things, Models and Demonstrations
4.7 Games, Simulations

4. **Methods and Procedures in Individualized Teaching Strategies for Computer Studies & Data Analysis**
   4.1 Rationales and significant features
   4.2 Methods of Individualization
   4.3 Programmed Instruction
   4.4 Computer Assisted Instruction and Computer Managed Instruction
   4.5 Modular Instruction
   4.6 Personalized System of Instruction
   4.7 Individually Prescribed Instruction
   4.8 Audio-tutorial Method
5. **Designing Instruction in Computer Studies & Data Analysis**
   5.1 Designing Instructional Sequence
   5.2 Model for Systematic Planning of Instruction
   5.3 Steps in Instructional Planning
   5.4 Designing Individual Lesson/unit Planning
6. **Designing Conceptual Toolkit for teaching Computer Studies & Data Analysis**
   6.1 What is the significance of low cost no material in teaching
   6.2 Types of low cost no material
   6.3 Use of low cost no cost material
   6.4 Concept of toolkit
   6.5 Use of low cost no material in developing toolkit for different arts n crafts concepts
7. **Use of modern Instructional Technology in teaching of Computer Studies & Data Analysis**
   7.1 Use of smart interactive white boards for teaching Computer Studies & Data Analysis
   7.2 Use of LCD projector for teaching Computer Studies & Data Analysis
   7.3 Creating blogs and websites for teaching Computer Studies & Data Analysis
   7.4 Use of on line media for teaching Computer Studies & Data Analysis
8. **Designing Instructional modules for teaching Computer Studies & Data Analysis**
   8.1 What is modular instruction?
   8.2 Lesson planning for modular instruction for teaching Computer Studies & Data Analysis
   8.3 Planning technology for modular instruction

Assessment and Examinations

The students will be assessed according to the following criteria.

Examination	Marks Distribution
Sessional work	25 %
Mid Semester	35%
End Semester	40%

Suggested Readings

De Vries, M. J. (2018).*Teaching about Technology: An Introduction to the Philosophy of Technology for Non-philosophers (Contemporary Issues in Technology Education).* Netherlands: Springer.

Hallak J. (1990). *Investing in the Future, Setting Educational Priorities in the Developing World.* Paris, UNESCO: McGraw-Hill Kogakusha.

Indira M. (2003). *Changing Demands of Technical and Vocational Education.* New Delhi: Annual Publication.

Govt. of Pakistan. (2003). *Education for All.* Islamabad: Ministry of Education Curriculum Wing.

Robert M., Baird, R., Mays, R. & Stuart, E. R. (Eds.) (2000). *Cyberethics: Social & Moral Issues in the Computer Age*. New York: Promethus Books.

UNESCO. Pakistan. (2004). Quality of education in Pakistan. Islamabad: UNESCO.

CONTEMPORARY ISSUES & TRENDS IN COMPUTER STUDIES & DATA ANALYSIS

Course Code: EDBET358 **Credit Hours: 3**

Course Description

The broad purpose of this course is to develop students' knowledge, skills, and abilities as technology educationist. In particular, this course aims to develop at high level of understanding and a critical analytic perspective across a diverse range of trends and issues in Computer Studies & Data Analysis by focusing on conceptual, theoretical and substantive research findings found in the academic research literature in the field.

Learning Outcomes

Upon completion of this course, the students:

1. Will develop knowledge and skills that enable the student to evaluate, critique, and ultimately contribute to the scholarly literature in Computer Studies & Data Analysis.
2. Should have improved their written and verbal communication and analytical skills and feel comfortable discussing theoretical and methodological issues in a scholarly manner.
3. Will gain an appreciation of the development of knowledge in a range of topic areas.
4. will learn about the institutions, systems, and practices found in academic as well as research process in Computer Studies & Data Analysis

Contents

1 Education as a Complex Enterprise

- 1.1 Diversity of aims and approaches in education.
- 1.2 Variety of philosophical approaches to education.
- 1.3 Education in different periods and societies

2 Technology Education

- 2.1 Technical School: origin, aims and Learning Outcomes
- 2.2 Role of madrassah in 21st century
- 2.3 System of education in Technical School
- 2.4 Technological reforms in Pakistan

3 Universal Literacy

- 3.1 Literacy and individual rights
- 3.2 Factors affecting program for universal literacy: medium of instruction
- 3.3 Formal and Non formal education: Advantages and disadvantages

4 Gender Disparity

- 4.1 Concept of gender equality
- 4.2 Factors affecting the status and role of women
- 4.3 Steps towards reducing gender disparity.

5 Population Education:

- 5.1 Concept of Population Education.
- 5.2 Factors affecting Population Education
- 5.3 Impact of Population Growth on National Development.
- 5.4 Roles and responsibilities of family, school, mosque and community in population education.
- 5.5 Steps towards population planning and welfare.

6 Environmental Awareness
- 6.1 Types of pollution
- 6.2 Causes of pollution
- 6.3 Environmental education

7 Privatization of Technical Education
- 7.1 Government resources and multiple demands
- 7.2 Need of private sector education
- 7.3 Challenges of quality education

8 Information in Technical Education
- 8.1 New concept of information explosion
- 8.2 Expanding learning resources
- 8.3 Information and communication technology (ICT) literacy
- 8.4 Technology in education

Having studied these contents, the students will reflect over following trends and issues in specific context of Technical Education

Issues in Technical Education
- 26 Technological contents and religious conflicts
- 27 Globalization of Technical Education
- 28 Practical assessment in Technical education
- 29 One size fits all? Comparative effectiveness of various methodologies in teaching science
- 30 Problems of Science education in Pakistan
- 31 Technical Education in Pakistan across national educational policies and plans
- 32 Teacher education in Pakistan
- 33 Declining attitude of students towards Technical Education
- 34 Gender disparity in Technical Education
- 35 Regional disparity in Technical Education
- 36 Should science curriculum be diversified?
- 37 Medium of Instruction for Technical Education. An exploratory approach
- 38 Demands of 21st century and our Technical Education curriculum. An analytical approach.
- 39 Our Technical Education textbooks: source of knowledge or source of misconceptions

Trends in Technological Education
- 40 Scientific literacy: goal of Technical Education in 21st century
- 41 Trend in international Math and Scientific Studies (TIMSS): Introduction & Major findings in Science domain
- 42 Program for International Students Assessment (PISA): Introduction & Major findings in arts & Experimental crafts & domain
- 43 Constructivism in Technical Education: Theoretical background
- 44 Constructivism in Technical Education: Practices in classroom and challenges
- 45 Constructivism in Technical Education: Assessment practices and challenges
- 46 Use of concept mapping technique in teaching technology

57. Scientific Inquiry
58. The role of Technical Education in environmental literacy
59. Science, Technology , Society (STS) connections
60. Curricular reforms in Technical Education
61. ICT in Technical Education
62. Technical teacher recruitment standards: A comparative approach
63. Modern Assessment practices in technology disciplines
64. Introduction to major research journals in Technical Education
65. Role of argumentation in Technical Education
66. Standards for 21st century Computer laboratory
67. Career opportunities with Computer Studies & Data Analysis
68. Technical Education at higher education level: an introduction to degree programs offered in Technical Education round the world
69. Use of low cost no cost material in Technical Education

Assessment and Examinations

The students will be assessed according to the following criteria.

Examination	Marks Distribution
Sessional work	25 %
Mid Semester	35%
Final Semester	40%

Suggested Readings

Branch, J., Collins, M.,& Sotnick-Yogev, E. (2018). *Contemporary Issues in Digital Marketing: New Paradigms, Perspectives, and Practices.* Farington: Independent Publishers Group.

De Vries, M. J. (2018).*Teaching about Technology: An Introduction to the Philosophy of Technology for Non-philosophers (Contemporary Issues in Technology Education).* Netherlands: Springer.

Haltak, J. (1990). *Investing in the Future, Setting Educational Priorities in the DevelopingWorld.* Paris, UNESCO: McGraw-Hill Kogakusha.

Indira, M. (2003). *Changing Demands of Technical and Vocational Education.* New Delhi: Annual Publication.

Govt. of Pakistan. (2003). *Education for All.* Islamabad: Ministry of Education Curriculum Wing.

Robert, M., Baird, R., Mays, R. & Stuart, E. R. (Eds.) (2000). *Cyberethics: Social & Moral Issues in the Computer Age*. New York: Promethus Books.

UNESCO, Pakistan. (2004). Quality of education in Pakistan. Islamabad: UNESCO.

(III) Area of Specialization Courses in Applied Electricity

TEACHING OF APPLIED ELECTRICITY

Course Code: EDBET361 **Credit Hours: 3**

Course Description:

A process based on the needs of the program's various constituencies in which the Learning Outcomes are determined and periodically evaluated; a curriculum and processes that ensure the achievement of these Learning Outcomes; and a system of ongoing evaluation that demonstrates achievement of these Learning Outcomes and uses the results to improve the effectiveness of the program.

The objective of the Department of Technology Education at Institute of Education & Research is to produce alumni who contribute to our society and to the economic base of our region, our nation and the world to the best of their abilities. We recognize that our students have very diverse interests and talents, and although the majority may find employment in one of the many specialties or interdisciplinary activities in industry or academe to which electrical engineers traditionally gravitate. Regardless of the intended career, our educational objective is to have them use the analytical discipline, problem-solving experience and collaborative skills of their undergraduate education in creative endeavours as professionals and to avail themselves of opportunities to learn new skills and advance their careers through continuing education.

Learning Outcomes

a. An ability to apply knowledge of science and engineering
b. An ability to design and conduct experiments, as well as to analyze and interpret data
c. An ability to function on multi-disciplinary teams
d. An ability to identify, formulate and solve engineering problems
e. An understanding of professional and ethical responsibilities
f. An ability to communicate effectively
g. The broad education necessary to understand the impact of engineering solutions in a global, economic, environmental and societal context
h. A recognition of the need for, and an ability to engage in life-long learning
i. Knowledge of contemporary issues
j. An ability to use the techniques, skills and modern engineering tools necessary for engineering practice
k. Learn basic physics concepts
l. Learn basic function / operations of electric circuits
m. Learn operations in different / various electric components.
n. Understand the nature, functions and scope of electric components.
o. Understand basic function, ind vidual behavior and operation in electric equipment.

Course Syllabus:

1. Understanding electricity
   1.1 Concept of electricity
   1.2 States of matter
      * Solid, liquid & gas

1.3 Atomic structure
* Electronic, protons & neutrons
1.4 Electric current theory
* Current direction
* Current through a metallic conductor
1.5 Source of current
* Heating effect
* Magnetic effect
* Chemical effect
1.6 Ohm's Law
* Series & parallel combinations of resistors
1.7 Color code for carbon resistance
* Rheostat
* Thermistors
1.8 Electromotive force (EMF)

2. Kerchief's Law
2.1 Kickoffs first law
2.2 Kerchiefs second law
2.3 Wheat stone bridge
2.4 Potentiometer

3. Electromagnetism
Magnetic field due to current in a straight wire
Force on a current carrying conductor in a uniform magnetic field.
Magnetic flux & flux density
Force on a moving charge in a magnetic field
Cathode ray oscilloscope
Uses of CRO
Galvanometer.
* Ammeter
* Voltmeter
* Ohmmeter

4. Electromagnetic induction
4.1 Induced EMF& induced current
4.2 Motional EMF
4.3 Faradays law & induced EMF
4.4 Lenz Law
4.5 Mutual induction
4.6 Self-induction
4.7 Energy stored in a an inductor
4.8 Alternating current generator

5. Alternating current
5.1 Instantaneous value
5.2 Peak value

3 Pak to peak value
4 Root mean square value
5 Phase lag & phase lead
6 Phase of AC
7 Practical

C circuits
1 Ac through a resistor
2 Ac through a capacitor
3 Ac through an inductor
4 Impedance
5 RC & RL circuits
8 Exercises and Problems
lodulation
1 Amplitude modulation
2 Frequency modulation
apacitor
1 Coulombs law
2 Electric field
3 Electric flux
4 Practical
)C generator
1 Shunt generator
2 Series generator
3 Compound generator
4 Losses & efficiency
)C motor
0.1 Back emf
0.2 Torque
0.3 Shunt motor
0.4 Practical

ransformer
1.1 No load current
1.2 EMF equation
1.3 Ratio of transformation
inal Project/ practical

Book(s) &Suggested Readings Material:

Theraja "Electrical Technology"
rility "Examples in electrical engineering"
pherics "Motors & Generators"

Instructional Aids/Resources

1. Handouts
2. OHP/Transparencies

Teaching Strategies

1. Lecture
2. Group Project/Class Presentation
3. Discussion
4. Questions-Answers
5. Solving Numerical Problems

Teaching-learning Strategies

The instructional strategies will focus on constructionist learning approach. These strategies will be diverse in line with the course contents. Therefore, these strategies will include but not limited to demonstration, cooperative learning, collaborative learning, teacher and student-led discussion, individual and group presentations, reflective practices and classroom activities.

Assessment and Examinations

The students will be assessed according to the following criteria.

Examination	Marks Distribution
Sessional work	25 %
Mid Semester	35%
Final Semester	40%

Suggested Readings

AIOU. (2006).*Population Education Course* MA EPM 584. Islamabad: AIOU.

Govt. of Pakistan. (2003). *Education for All.* Islamabad: Ministry of Education Curriculum Wing.

Haltak, J. (1990). *Investing in the Future, Setting Educational Priorities in the DevelopingWorld.* Paris, UNESCO: McGraw-Hill Kogakusha.

Heywood, D. (2010). *The Pedagogy of Physical Science (Contemporary Trends and Issues in Science Education).*

Indira, M. (2003). *Changing Demands of Technical and Vocational Education.* New Delhi: Annual Publication.

John, C. P.(2007). *The Marine Electrical and Electronics Bible.*

Fujitaki, K. (2009). *The Manga Guide to Electricity Paperback.* Co Ltd Trend

Ministry of Education, Curriculum Wing. (2010).*13 Modules on Various Core Themes of Population Education*, Islamabad: _____.

National Research Council, *Optics and Photonics: Essential Technologies for Our Nation*

Rao, V. K. (2004). *Population Education.* New Delhi: Efficient Printer.

Smith, J. N.(). *Instructional Technology for Teaching and Learning: Designing Instruction, Integrating Computers, and Using Media (2nd ed.)*

Tomecek, S. (1999). *Teaching Electricity: Yes, You Can! : Grades 3-6.*

UNESCO. (2004). *Quality of education in Pakistan.*Islamabad: UNESCO.

INSTRUCTIONAL TECHNOLOGY FOR TEACHING OF APPLIED ELECTRICITY

Course Code: EDBET362 **Credit Hours: 3**

Course Description

The course "Instructional Technology for teaching of Electronics" is designed to provide basic knowledge and understanding of the modern instructional technology used for teaching of Electronics. Upon completing of this course the students should be able to select, use and use reliable and valid instructional technology. They should also be able to select the most appropriate instructional best suited for the topic. The students will become familiar with the professional as well as ethical issues in use of using instructional technology. The course will also provide an understanding of the basic terminology, methods, designs and models as they relate to the area of Applied Electricity. It develops awareness about the procedures and options available worldwide in Instructional Technology in professional pursuit.

Learning Outcomes

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

1. Understand the concept of instructional technology.
2. Recognize the importance of instructional technology in Technical Education.
3. Relate the use of instructional technology with various methods of teaching.
4. Know the modern instructional technologies being used worldwide.
5. Design instructional technology with the help of low cost no cost material.
6. Plan science lessons incorporating instructional aides and best teaching method.
7. Know the advantages and limitations of various instructional technologies.
8. Make effective use of computers in teaching Applied Electricity.
9. Make effective use of laboratory apparatus in teaching concepts of Applied Electricity.

Contents

1. Nature of Applied Electricity as a field of Technical Education

- 1.1 What is the nature of Applied Electricity?
- 1.2 Application of Scientific Method to study Applied Electricity.
- 1.3 How do Technologists conduct research? Some classic work in field of Technical Education.
- 1.4 Technical Education and the human welfare

2. Classroom Communication

- 2.1 What is teaching, learning and instruction?
- 2.2 Elements of classroom communication
- 2.3 Barriers to classroom communication

3. Instructional Aids or Teaching Aids

- 3.1 What are the Instructional or teaching Aids
- 3.2 Importance of teaching aids
- 3.3 Different types of teaching aid material
- 3.4 Principles for selection of teaching aids
- 3.5 Principles for using of teaching aids

4. Media in Teaching and Learning of Applied Electricity

- 4.1 Materials for visual communications: Bulletin Boards, Chalk Boards, Flannel Boards, etc.
- 4.2 Graphic Materials: Graphs, Charts, Cartoons, Maps and Globes
- 4.3 Still Pictures:
- 4.3.1 Opaque projector

- 2 Over-head projector and transparencies
- 3 Slide projector and film slides
- 4 Filmstrip projector and filmstrip
- Audio-Materials, Radio and Tape-Recorder
- Motion Pictures, Films and Video
- Real things, Models and Demonstrations
- Games, Simulations

Methods and Procedures in Individualized Teaching Strategies for Applied Electricity

- Rationales and significant features
- Methods of Individualization
- Programmed Instruction
- Computer Assisted Instruction and Computer Managed Instruction
- Modular Instruction
- Personalized System of Instruction
- Individually Prescribed Instruction
- Audio-tutorial Method

Designing Instruction in Applied Electricity

- Designing Instructional Sequence
- Model for Systematic Planning of Instruction
- Steps in Instructional Planning
- Designing Individual Lesson/unit Planning

esigning Conceptual Toolkit for teaching Applied Electricity

- What is the significance of low cost no material in teaching
- Types of low cost no material
- Use of low cost no cost material
- Concept of toolkit
- Use of low cost no material in developing toolkit for different arts n crafts

ncepts

se of modern Instructional Technology in teaching of Applied Electricity

- Use of smart interactive white boards for teaching Applied Electricity
- Use of LCD projector for teaching Applied Electricity
- Creating blogs and websites for teaching Applied Electricity
- Use of on line media for teaching Applied Electricity

esigning Instructional modules for teaching Applied Electricity

- What is modular instruction?
- Lesson planning for modular instruction for teaching Applied Electricity
- Planning technology for modular instruction

Assessment and Examinations

he students will be assessed according to the following criteria.

Examination	Marks Distribution
Sessional work	25 %
Mid Semester	35%
Final Semester	40%

Suggested Readings

AIOU. (2006). *Population Education Course* MA EPM 584. Islamabad: AIOU.

Govt. of Pakistan. (2003). *Education for All.* Islamabad: Ministry of Education Curriculum Wing.

Haltak, J. (1990). *Investing in the Future, Setting Educational Priorities in the DevelopingWorld.* Paris, UNESCO: McGraw-Hill Kogakusha.

Heywood, D. (2010). *The Pedagogy of Physical Science (Contemporary Trends and Issues in Science Education).*

Indira, M. (2003). *Changing Demands of Technical and Vocational Education.* New Delhi: Annual Publication.

John, C. P.(2007). *The Marine Electrical and Electronics Bible.*

Kazuhiro Fujitaki, K. (2009). *The Manga Guide to Electricity Paperback.* Co Ltd Trend

Ministry of Education, Curriculum Wing. (2010). *13 Modules on Various Core Themes of Population Education*, Islamabad: _____.

National Research Council, *Optics and Photonics: Essential Technologies for Our Nation*

Rao, V. K. (2004). *Population Education.* New Delhi: Efficient Printer.

Timothy, J. N.(). *Instructional Technology for Teaching and Learning: Designing Instruction, Integrating Computers, and Using Media (2nd ed.)*

UNESCO. (2004). *Quality of education in Pakistan.* Islamabad: UNESCO.

TRENDS AND CONTEMPORARY ISSUES & TRENDS IN APPLLIED ELECTRICITY

Course Code: EDBET363 **Credit Hours: 3**

Course Description

The broad purpose of this course is to develop students' knowledge, skills, and abilities as technology educationist. In particular, this course aims to develop at high level of understanding and a critical analytic perspective across a diverse range of trends and issues in Applied Electricity by focusing on conceptual, theoretical and substantive research findings found in the academic research literature in the field.

Learning Outcomes Upon completion of this course, the students:

- Will develop knowledge and skills that enable the student to evaluate, critique, and ultimately contribute to the scholarly literature in Applied Electricity.
- Should have improved their written and verbal communication and analytical skills and feel comfortable discussing theoretical and methodological issues in a scholarly manner.
- Will gain an appreciation of the development of knowledge in a range of topic areas.
- Will learn about the institutions, systems, and practices found in academic as well as research process in Applied Electricity

Contents

1. **Education as a Complex Enterprise**
   - 1.1 Diversity of aims and approaches in education.
   - 1.2 Variety of philosophical approaches to education.
   - 1.3 Education in different periods and societies
2. **Technology Education**
   - 2.1 Technical School: origin, aims and Learning Outcomes
   - 2.2 Role of madrassah in 21st century
   - 2.3 System of education in Technical School
   - 2.4 Technological reforms in Pakistan
3. **Universal Literacy**
   - 3.1 Literacy and individual rights
   - 3.2 Factors affecting program for universal literacy: medium of instruction
   - 3.3 Formal and Non formal education: Advantages and disadvantages
4. **Gender Disparity**
   - 4.1 Concept of gender equality
   - 4.2 Factors affecting the status and role of women
   - 4.3 Steps towards reducing gender disparity.
5. **Population Education:**
   - 5.1 Concept of Population Education.
   - 5.2 Factors affecting Population Education
   - 5.3 Impact of Population Growth on National Development.
   - 5.4 Roles and responsibilities of family, school, mosque and community in population education.
   - 5.5 Steps towards population planning and welfare.

6 Environmental Awareness
- 6.1 Types of pollution
- 6.2 Causes of pollution
- 6.3 Environmental education

7 Privatization of Technical Education
- 7.1 Government resources and multiple demands
- 7.2 Need of private sector education
- 7.3 Challenges of quality education

8 Information in Technical Education
- 8.1 New concept of information explosion
- 8.2 Expanding learning resources
- 8.3 Information and communication technology (ICT) literacy
- 8.4 Technology in education

Having studied these contents, the students will reflect over following trends and issues in specific context of Technical Education

Issues in Technical Education

1. Technological contents and religious conflicts
2. Globalization of Technical Education
3. Practical assessment in Technical education
4. One size fits all? Comparative effectiveness of various methodologies in teaching science
5. Problems of Science education in Pakistan
6. Technical Education in Pakistan across national educational policies and plans
7. Teacher education in Pakistan
8. Declining attitude of students towards Technical Education
9. Gender disparity in Technical Education
10. Regional disparity in Technical Education
11. Should science curriculum be diversified?
12. Medium of Instruction for Technical Education. An exploratory approach
13. Demands of 21st century and our Technical Education curriculum. An analytical approach.
14. Our Technical Education textbooks: source of knowledge or source of misconceptions

Trends in Technological Education

1. Scientific literacy: goal of Technical Education in 21st century
2. Trend in international Math and Scientific Studies (TIMSS): Introduction & Major findings in Science domain
3. Program for International Students Assessment (PISA): Introduction & Major findings in arts & Experimental crafts & domain
4. Constructivism in Technical Education: Theoretical background
5. Constructivism in Technical Education: Practices in classroom and challenges
6. Constructivism in Technical Education: Assessment practices and challenges
7. Use of concept mapping technique in teaching technology

8. Scientific Inquiry
9. The role of Technical Education in environmental literacy
10. Science, Technology , Society (STS) connections
11. Curricular reforms in Technical Education
12. ICT in Technical Education
13. Technical teacher recruitment standards: A comparative approach
14. Modern Assessment practices in technology disciplines
15. Introduction to major research journals in Technical Education
16. Role of argumentation in Technical Education
17. Standards for 21st century Electricity laboratory
18. Standards for 21st century Electronics laboratory
19. Standards for 21st century mechanical laboratory
20. Career opportunities with Technical Education
21. Technical Education at higher education level: an introduction to degree programs offered in Technical Education round the world
22. Use of low cost no cost material in Technical Education

Assessment and Examinations

The students will be assessed according to the following criteria.

Examination	Marks Distribution
Sessional work	25 %
Mid Semester	35%
Final Semester	40%

Suggested Readings

2006). *Population Education Course* MA EPM 584. Islamabad: AIOU.

Pakistan. (2003). *Education for All.* Islamabad: Ministry of Education Curriculum Wing.

(1990). *Investing in the Future, Setting Educational Priorities in the DevelopingWorld.* Paris, UNESCO: McGraw-Hill Kogakusha.

, D. (2010). *The Pedagogy of Physical Science (Contemporary Trends and Issues in Science Education).*

1. (2003). *Changing Demands of Technical and Vocational Education.* New Delhi: Annual Publication.

P.(2007). *The Marine Electrical and Electronics Bible.*

Kazuhiro Fujitaki, K. (2009). *The Manga Guide to Electricity Paperback.* Co Ltd Trend

Ministry of Education, Curriculum Wing. (2010). *13 Modules on Various Core Themes of Population Education*, Islamabad: _____.

National Research Council, *Optics and Photonics: Essential Technologies for Our Nation*

Rao, V. K. (2004). *Population Education.* New Delhi: Efficient Printer.

Timothy, J. N.(). *Instructional Technology for Teaching and Learning: Designing Instruction, Integrating Computers, and Using Media (2nd ed.)*

UNESCO. (2004). *Quality of education in Pakistan.* Islamabad: UNESCO.

(III) Area of Specialization Courses in General Electronics
TEACHING OF GENERAL ELECTRONICS

Course Code: EDBET366 Credit Hours: 3

Course Description:

The objective of this programme is to give deep knowledge in electronics devices and systems with a focus on sensor systems. The programme provides knowledge, methods, and tools for modelling and design of components, circuits, and systems. A theoretical base is given that covers a wide field within electronics system designs, from semiconductor technology to design of embedded systems. The different areas are integrated in order to give a good understanding of the different technologies possibilities and limitations. The student's knowledge and understanding of the different technologies is strengthened by independent problem solving for specific technological problems.

Learning Outcomes

- Be able to base on a given problem in electronics select the optimum technology and process
- Be able to analyze problems in the specification, design and verification of digital systems
- Implement a digital function within a larger system
- Be able to analyze a technology problem and based on that plan and document knowledge acquisition and implementation of the project
- Understanding the different technological possibilities and limitations of a system
- Understand the nature, functions and scope of electronic devices.
- Understand basic function, individual behavior and operation in electronic equipment.
- Understand basic performance in electronic equipment.

Contents

Semi Conductors

1.9 Concept of semiconductors
1.10 Covalent Bond
1.11 N-type & P-type semiconductors
1.12 Hole Charge
1.13 Majority & Minority Charges on semiconductor
1.14 Fixed ion charge in the doped semiconductor

PN Junction

2.5 Concept of old electronic theory on Tubes
- Diode Tube
- Triode Tube

2.6 Concept of PN junction
2.7 Internal barrier potential
2.8 Polarity reverse biased and forward biased

Semi conductor Diodes

3.1 Concept of diode
3.2 Diode applications

Rectifier packaging

- Full wave Rectifier
- Half Wave Rectifier

Bridge rectifier

Different kinds of Diodes.

- Zener Diode
- Tunnel diode
- Light Emitting diode

Practical

16. PNP & NPN Transistors
    - 4.9 Basic Concept of Transistors
    - 4.10 Transistor action
    - 4.11 Collector base junction
    - 4.12 Emitter Base junction
    - 4.13 Base current controls and collector current
    - 4.14 Practical
17. Field Effect Transistors (FET)
    - 5.9 Concept of FET's
    - 5.10 Function of gate in FET's
    - 5.11 Function of Insulation in FET's
    - 5.12 Depletion or enhancement mode
    - 5.13 Practical
18. Uni- junction Transistors (UJT)
    - 9.6 Basic construction & functioning
    - 9.7 Working principle
    - 5.14 Exercises and Problems
19. Thyristors
    - 6.3 Introduction
    - 6.4 Characteristics
    - 6.5 Functioning
20. Silicon controlled Rectifier (SCR)
    - 7.5 Basic concept of construction functioning
    - 7.6 Latching current in SCR
    - 7.7 SCR power control circuit
    - 7.8 Practical
21. Diac & Triac
    - 8.5 Concept of Diac
    - 8.6 Functioning and construction
    - 8.7 Concept of Traic
    - 8.8 Functioning of Triac
22. Visual Character display
    - 10.5 Function of LED / LCD
    - 10.6 Construction of VCD
    - 10.7 Functioning

10.8 Practical

Digital Electronics

11.4 Introduction to gates

11.5 IC (integrated circuit) Encoder & Decoders

11.6 Different kinds of gates

- Or, and, not, nand & nor gates

11.4 DTL, TTL & DDL circuits.

Final Project

Edn.) South-Western College Publishing, Cincinnati, Ohio

Teaching-learning Strategies

The instructional strategies will focus on constructionist learning approach. These strategies will be diverse in line with the course contents. Therefore, these strategies will include but not limited to demonstration, cooperative learning, collaborative learning, teacher and student-led discussion, individual and group presentations, reflective practices and classroom activities.

Assessment and Examinations

The students will be assessed according to the following criteria.

Examination	Marks Distribution
Sessional work	25 %
Mid Semester	35%
Final Semester	40%

Suggested Readings

Industries (). *Unique & fun DIY electronics and kits* Practical Electronics for nventors *(4th ed).* ID: 1261 - THE ELECTRONICS KNOW-HOW YOU.

F. F. Jr. (1997). *Electronic Devices and Circuits (11th ed).* _____: McGraw-Hill

1999). *Electronic Devices* (19th *ed).* _____: McGraw -Hill

M. *Mims.III.* (2000).*Electronic Sensor Circuits and Projects.* Lincolnwood: Master Publishers.

L. J. (2011). *How to diagnose* and *fix everything electronic*. New York:McGraw-Hill.

992). *Basic Electronics* (7th*ed*). _____: McGraw- Hill International Editions.

P., &Monk, S. (2016). *Practical Electronics for Inventors* (4th ed). New York:McGraw-Hill.

Newby, T. M., Lehman, J., Russell, J., Stepich, D. A. (2000). *Instructional Technology for Teaching and Learning: Designing Instruction, Integrating Computers, and Using Media (2nd ed).* Upper Saddle River, **N.J.:** Prentice Hall.

Shrader,R. L. (1994).*Electronic Communication(6th ed).*_____.

INSTRUCTIONAL TECHNOLOGY FOR TEACHING OF GENERAL ELECTRONICS

Code: EDBET367 **Credit Hours: 3**

Description

The course "Instructional Technology for teaching of Electronics" is designed to provide knowledge and understanding of the modern instructional technology used for teaching Electronics. Upon completing of this course the students should be able to select. use and evaluate reliable and valid instructional technology. They should also be able to select the most appropriate instructional best suited for the topic. The students will become familiar with the professional as well as ethical issues in use of using instructional technology. The course will also provide an understanding of the basic terminology, methods, designs and models as they relate to the area of General Electronics. It develops awareness about the procedures and options available worldwide in Instructional Technology in professional pursuit.

Learning Outcomes

On successful completion of this course the students will be able to:

1. Understand the concept of instructional technology.
2. Recognize the importance of instructional technology in Technical Education.
3. Relate the use of instructional technology with various methods of teaching.
4. Know the modern instructional technologies being used worldwide.
5. Design instructional technology with the help of low cost no cost material.
6. Plan science lessons incorporating instructional aides and best teaching method.
7. Know the advantages and limitations of various instructional technologies.
8. Make effective use of computers in teaching General Electronics.
9. Make effective use of laboratory apparatus in teaching concepts of General Electronics.

Contents

Nature of General Electronics as a field of Technical Education

1.1 What is the nature of General Electronics?
1.2 Application of Scientific Method to study General Electronics.
1.3 How do Technologists conduct research? Some classic work in field of Technical Education.
1.4 Technical Education and the human welfare

Classroom Communication

2.1 What is teaching, learning and instruction?
2.2 Elements of classroom communication
2.3 Barriers to classroom communication

Instructional Aids or Teaching Aids

3.1 What are the Instructional or teaching Aids
3.2 Importance of teaching aids
3.3 Different types of teaching aid material
3.4 Principles for selection of teaching aids
3.5 Principles for using of teaching aids

Media in Teaching and Learning of General Electronics

4.1 Materials for visual communications: Bulletin Boards, Chalk Boards, Flannel Boards, etc.
4.2 Graphic Materials: Graphs, Charts, Cartoons, Maps and Globes
4.3 Still Pictures:

4.3.1 Opaque projector
4.3.2 Over-head projector and transparencies
4.3.3 Slide projector and film slides
4.3.4 Filmstrip projector and filmstrip
4.4 Audio-Materials, Radio and Tape-Recorder
4.5 Motion Pictures, Films and Video
4.6 Real things, Models and Demonstrations
4.7 Games, Simulations

4. Methods and Procedures in Individualized Teaching Strategies for General Electronics

4.1 Rationales and significant features
4.2 Methods of Individualization
4.3 Programmed Instruction
4.4 Computer Assisted Instruction and Computer Managed Instruction
4.5 Modular Instruction
4.6 Personalized System of Instruction
4.7 Individually Prescribed Instruction
4.8 Audio-tutorial Method

5. Designing Instruction in General Electronics

5.1 Designing Instructional Sequence
5.2 Model for Systematic Planning of Instruction
5.3 Steps in Instructional Planning
5.4 Designing Individual Lesson/unit Planning

6. Designing Conceptual Toolkit for teaching General Electronics

6.1 What is the significance of low cost no material in teaching
6.2 Types of low cost no material
6.3 Use of low cost no cost material
6.4 Concept of toolkit
6.5 Use of low cost no material in developing toolkit for different arts n crafts concepts

7. Use of modern Instructional Technology in teaching of General Electronics

7.1 Use of smart interactive white boards for teaching General Electronics
7.2 Use of LCD projector for teaching General Electronics
7.3 Creating blogs and websites for teaching General Electronics
7.4 Use of on line media for teaching General Electronics

8. Designing Instructional modules for teaching General Electronics

8.1 What is modular instruction?
8.2 Lesson planning for modular instruction for teaching General Electronics
8.3 Planning technology for modular instruction

Teaching-learning Strategies

The instructional strategies will focus on constructionist learning approach. These strategies will be diverse in line with the course contents. Therefore, these strategies will include but not limited to demonstration, cooperative learning, collaborative learning, teacher and student-led discussion, individual and group presentations, reflective practices and classroom activities.

Assessment and Examinations

The students will be assessed according to the following criteria.

Examination	Marks Distribution
Sessional work	25 %
Mid Semester	35%
Final Semester	40%

Suggested Readings

Adafruit Industries, *Practical Electronics for Inventors*, Fourth Edition ID: 1261 - THE ELECTRONICS KNOW-HOW YOU ..

Ahmad, J. (2011). *Teaching of biological sciences (Intended for Teaching of Life Sciences, Physics, Chemistry and General Science)*. New Dehli: PHI Learning Pvt. Ltd.

Bogart, T. F. Jr. (1997). *Electronic Devices and Circuits (11th ed).*_____: McGraw-Hill

Connaway, L. S. (2003).Electronic Books (eBooks): Current Trends and Future Directions.*DESIDOC Bulletin of Information Technology 23*(1), 13-18.

Forrest, M. *Mims. III.* (2000). *Electronic Sensor Circuits and Projects.*Lincolnwood: Master Publishers.

Geier, M. J. (2011). *How to diagnose* and *fix everything electronic*. New York: McGraw-Hill.

Grob. (1992). *Basic Electronics* (7th*ed*). _____: McGraw- Hill International Editions.

Malhotra, V. (2007).*Methods of teaching biology.* New Delhi: Crescent Publishing Corporation.

Martin, R. E., Sexton, C. M., & Gerlovich, J. A. (2001). *Teaching science for all children.* Boston: Allyn and Bacon

Newby, T. M., Lehman, J., Russell, J., Stepich, D. A. (2000). *Instructional Technology for Teaching and Learning: Designing Instruction, Integrating Computers, and Using Media (2nd ed).* Upper Saddle River, **N.J.:** Prentice Hall.

Nilson, L. B. (2016). *Teaching at its best: A research-based resource for college instructors.* New York: John Wiley & Sons.

Scherz, P., & Monk, S. (2016). *Practical Electronics for Inventors* (4th ed). New York: McGraw-Hill.

Ramakrishna, A. (2012). *Methods of teaching life sciences.* Chennai: Pearson.

CONTEMPORARY ISSUES & TRENDS IN GENERAL ELECTRONICS

Course Code: EDBET368 **Credit Hours: 3**

Course Description
The broad purpose of this course is to develop students' knowledge, skills, and abilities as technology educationist. In particular, this course aims to develop at high level of understanding and a critical analytic perspective across a diverse range of trends and issues in General Electronics by focusing on conceptual, theoretical and substantive research findings found in the academic research literature in the field.

Learning Outcomes Upon completion of this course, the students:

9. Will develop knowledge and skills that enable the student to evaluate, critique, and ultimately contribute to the scholarly literature in General Electronics.
10. Should have improved their written and verbal communication and analytical skills and feel comfortable discussing theoretical and methodological issues in a scholarly manner.
11. Will gain an appreciation of the development of knowledge in a range of topic areas.
12. will learn about the institutions, systems, and practices found in academic as well as research process in General Electronics

Contents

1 Education as a Complex Enterprise
- 1.1 Diversity of aims and approaches in education.
- 1.2 Variety of philosophical approaches to education.
- 1.3 Education in different periods and societies

2 Technology Education
- 2.1 Technical School: origin, aims and Learning Outcomes
- 2.2 Role of madrassah in 21st century
- 2.3 System of education in Technical School
- 2.4 Technological reforms in Pakistan

3 Universal Literacy
- 3.1 Literacy and individual rights
- 3.2 Factors affecting program for universal literacy: medium of instruction
- 3.3 Formal and Non formal education: Advantages and disadvantages

4 Gender Disparity
- 4.1 Concept of gender equality
- 4.2 Factors affecting the status and role of women
- 4.3 Steps towards reducing gender disparity.

5 Population Education:
- 5.1 Concept of Population Education.
- 5.2 Factors affecting Population Education
- 5.3 Impact of Population Growth on National Development.
- 5.4 Roles and responsibilities of family, school, mosque and community in population education.
- 5.5 Steps towards population planning and welfare.

6 Environmental Awareness
- 6.1 Types of pollution
- 6.2 Causes of pollution
- 6.3 Environmental education

7 Privatization of Technical Education
- 7.1 Government resources and multiple demands
- 7.2 Need of private sector education
- 7.3 Challenges of quality education

8 Information in Technical Education
- 8.1 New concept of information explosion
- 8.2 Expanding learning resources
- 8.3 Information and communication technology (ICT) literacy
- 8.4 Technology in education

Having studied these contents, the students will reflect over following trends and issues in specific context of Technical Education

Issues in Technical Education

1. Technological contents and religious conflicts
2. Globalization of Technical Education
3. Practical assessment in Technical education
4. One size fits all? Comparative effectiveness of various methodologies in teaching science
5. Problems of Science education in Pakistan
6. Technical Education in Pakistan across national educational policies and plans
7. Teacher education in Pakistan
8. Declining attitude of students towards Technical Education
9. Gender disparity in Technical Education
10. Regional disparity in Technical Education
11. Should science curriculum be diversified?
12. Medium of Instruction for Technical Education. An exploratory approach
13. Demands of 21st century and our Technical Education curriculum. An analytical approach.
14. Our Technical Education textbooks: source of knowledge or source of misconceptions

Trends in Technological Education

1. Scientific literacy: goal of Technical Education in 21st century
2. Trend in international Math and Scientific Studies (TIMSS): Introduction & Major findings in Science domain
3. Program for International Students Assessment (PISA): Introduction & Major findings in arts & Experimental crafts & domain
4. Constructivism in Technical Education: Theoretical background
5. Constructivism in Technical Education: Practices in classroom and challenges
6. Constructivism in Technical Education: Assessment practices and challenges
7. Use of concept mapping technique in teaching technology

8. Scientific Inquiry
9. The role of Technical Education in Environmental Literacy
10. Science, Technology , Society (STS) connections
11. Curricular reforms in Technical Education
12. ICT in Technical Education
13. Technical teacher recruitment standards: A comparative approach
14. Modern Assessment practices in technology disciplines
15. Introduction to major research journals in Technical Education
16. Role of argumentation in Technical Education
17. Standards for 21st century electronics laboratory
18. Standards for 21st century electricity laboratory
19. Standards for 21st century mechanical laboratory
20. Career opportunities with Technical Education
21. Technical Education at higher education level: an introduction to degree programs offered in Technical Education round the world
22. Use of low cost no cost material in Technical Education

Teaching-learning Strategies

The instructional strategies will focus on constructionist learning approach. These strategies will be diverse in line with the course contents. Therefore, these strategies will include but not limited to demonstration, cooperative learning, collaborative learning, teacher and student-led discussion, individual and group presentations, reflective practices and classroom activities.

Assessment and Examinations

The students will be assessed according to the following criteria.

Examination	Marks Distribution
Sessional work	25 %
Mid Semester	35%
Final Semester	40%

Suggested Readings

Forrest. M. *Mims. III.* (2000). *Electronic Sensor Circuits and Projects.* Lincolnwood: Master Publishers.

Adafruit Industries, *Practical Electronics for Inventors*, (4th ed) - *The electronics know-how you* ._____

Bogart, T. F. Jr. (1997). *Electronic Devices and Circuits (11th ed).*_____: McGraw-Hill

Geier, M. J. (2011). *How to diagnose* and *fix everything electronic*. New York: McGraw-Hill.

Grob. *Basic Electronics*, (7th ed)._____: McGraw- Hill International Editions.

Floyd., *Electronic Devices*, (1999), _____(19th *edition)*_____

Govt. of Pakistan. (2003). *Education for All.* Islamabad: Ministry of Education Curriculum Wing.

Haltak, J. (1990). *Investing in the Future, Setting Educational Priorities in the Developing World.* Paris, UNESCO: McGraw-Hill Kogakusha.

Indira, M. (2003). *Changing Demands of Technical and Vocational Education.* New Delhi: Annual Publication.

Ministry of Education, Curriculum Wing. (2010). *13 Modules on Various Core Themes of Population Education*, Islamabad: _____.

Scherz, P., & Monk, S. (2016). *Practical Electronics for Inventors* (4th ed). New York: McGraw-Hill.

Shrader. R.L. (1994), *Electronic Communication*, (6th ed.). _____: McGraw -Hill

Rao, V. K. (2004). *Population Education.* New Delhi: Efficient Printer.

UNESCO. (2004). *Quality of education in Pakistan.* Islamabad: UNESCO.

(III) Area of Specialization Courses in Technical and Geometrical Drawing
Teaching of Technical & Geometrical Drawing

Course Code: EDBET371 **Credit Hours: 3 hrs.**

COURSE DESCRIPTION:
Teaches advanced computer-aided drafting concepts and equipment designed to develop a general understanding of components of a typical CAD system and its operation.

Technical & Geometrical Drawing course provides students with technical knowledge and skills necessary to utilize computer software to prepare drawings commonly used in the building industry. Students receive training on recent releases of CAD software as well as hands-on experience in problem solving, critical thinking and communication skills. The curriculum is designed to provide a broad-based education with an opportunity for directing one's studies toward specific employment as well as continuation of education at a four-year university.

The Drafting Technology Program is designed to give students the skills and knowledge to begin a career in the drafting field or to pursue an advanced degree. Students learn the latest AutoCAD software in a modern lab facility. Students of the program are introduced to the field of architecture where practical lab projects and a learn-by-doing environment provides a well-rounded education that will prepare you for a new career in drafting. You will be able to apply the foundational skills learned to prepare for the - AutoDesk® AutoCAD® certification - AutoCAD® Architecture certification - AutoCAD® Civil 3D® certification - Autodesk® Inventor™ certification - Revit® Architecture certification

Learning Outcomes

A. Increase ability to communicate with people
B. Learn to sketch and take field dimensions.
C. Learn to take data and transform it into graphic drawings.
D. Learn basic Auto Cad skills.
E. Learn basic engineering drawing formats
F. Prepare the student for future Engineering positions

Prerequisite: **Basic drafting skills and some application software usage.**

Instructional Aids/Resources:

Software
AutoCAD 2000 Educational Version.

Platform:
Windows 2000/XP
Computer Laboratory for hands-on training

1. Introduction to AutoCAD
   1.1 Windows terminology, graphical user interface elements.
   1.2. File types, opening and closing files, saving files, setting up drawing area, drawing simple lines, rubber-banding lines, and concept of objects in AutoCAD.
   1.3. Command window: understanding format of commands, cursor's modes, selecting objects (standard window, crossing window).

2. Concept of limits, units, elements of Status bar (Object snap and OTrack) and their functions, distinction between control and operational commands.
3. Elements of Draw toolbar, coordinate systems: Cartesian & Polar, drafting settings (Polar tracking), the'@' operator, sketching Contentss of objects using coordinates.
4. Different modes of entering distances: direct distance method, using Grid snap, Polar snap. Zoom commands.
5. Drawing basic shapes: rays, circles, and rectangles.
6. Drawing basic shapes: ellipses, polygons, points, arcs, and elliptical arcs.
7. Selection command (complete), types of grips: cold, warm, hot, editing of objects using grips: deleting, stretching, scaling etc.
8. Elements of Modify toolbar
   - 8.1. Concept of base point, erasing, copying, and mirroring objects.
   - 8.2. The Offset and Trim commands, drawing wall lines of a building.
   - 8.3. The Move, Extend, Lengthen, Rotate commands.
   - 8.4. Array command, application of the previous work.
   - 8.5. Stretching, Scaling, Breaking, Chamfering, and Filleting objects.
9. Layers in AutoCAD: concept and application, layer manager.
10. Line types and line weights, Properties window.
11. Hatching: use, and setting of boundary hatch command.
12. Drawing points, point mode setting. Setting out equal distances in AutoCAD.
13. Adding text to Drawings. Text settings and scaling.
14. Dimensioning drawings:
    - 14.1. Overview of dimensioning, basic terminology, dimension toolbar.
    - 14.2. Linear, aligned, and continuous dimensions.
    - 14.3. Dimensioning angles, circles, etc.
15. Dimensioning drawings: practice of different dimensioning scenarios.
    - 15.1. Settings of Dimension Styles.
    - 15.2. Saving custom dimension styles and their use in other drawings.
16. Blocks command: creating simple blocks, saving, and using.
    - 16.1. Wblocks, introduction to AutoCAD design center.
    - 16.2. Blocks and External Suggested Readings.
17. Layouts: concept, using different layouts for a drawing.
    - 17.1. Laying out a drawing in Paper space.
    - 17.2. Working with view ports: creating, deleting, saving, naming, etc. Using view ports to manage drawings.
18. Drawing complex objects.
    - **18.1.** Polyline: different modes of editing, use of polyline.
    - 18.2. Multiline: settings and editing options, Spline: editing and use.
19. Printing in AutoCAD:
    - 19.1. Introduction, options (model vs. paper space), the Print dialog box.
    - 19.2. Adjusting scales of drawings, other options.
20. Introduction to 3D AutoCAD: coordinate systems, moving UCS etc.
    - 20.1. Drawing 3D solids: predefined solid shapes, extrude command. Viewing solids in different shade modes.
    - 20.2. 3D solids editing. Drawing shells.
21. Revision and practice sessions.

Teaching-learning Strategies

The instructional strategies will focus on constructionist learning approach. These strategies will be diverse in line with the course contents. Therefore, these strategies will include but not limited to demonstration, cooperative learning, collaborative learning, teacher and student-led discussion, individual and group presentations, reflective practices and classroom activities.

Assessment and Examinations

The students will be assessed according to the following criteria.

Examination	Marks Distribution
Sessional work	25 %
Mid Semester	35%
Final Semester	40%

Suggested Readings

AIOU (2006). *Population Education Course* MA EPM 584. Islamabad: AIOU.

Govt. of Pakistan. (2003). *Education for All.* Islamabad: Ministry of Education Curriculum Wing.

Haltak, J. (1990). *Investing in the Future, Setting Educational Priorities in the Developing World.* Paris, UNESCO: McGraw-Hill Kogakusha.

Indira, M. (2003). *Changing Demands of Technical and Vocational Education.* New Delhi: Annual Publication.

Ministry of Education, Curriculum Wing (2010). *13 Modules on Various Core Themes of Population Education*, Islamabad:_____.

Rao, V. K. (2004). *Population Education.* New Delhi: Efficient Printer.

Newby, T. M., Lehman, J., Russell, J., Stepich, D. A. (2000). *Instructional Technology for Teaching and Learning: Designing Instruction, Integrating Computers, and Using Media (2nd ed).* Upper Saddle River, N.J.: Prentice Hall.

UNESCO. (2004). *Quality of education in Pakistan.* Islamabad: UNESCO.

Warren, S. E. (2016). A *Manual of Elementary Geometrical Drawing Involving Three Dimensions:* In Five Divisions, DIV. I. Elementary Projections DIV. II. Details of in Shades and Shadows DIV. IV. Isometrica,

Winter, S. H. (2010). *Elementary Geometrical Drawing. Part II - The Practical Geometry Of Planes And Solids: Comprising the Elements of Descriptive Geometry, Etc. New Ed. 1880.*_____: Nabu Press.

INSTRUCTIONAL TECHNOLOGY FOR TEACHING OF TECHNICAL & GEOMETRICAL DRAWING

Course Code: EDBET372 **Credit Hours: 3**

Course Description

The course "Instructional Technology for teaching of Electronics" is designed to provide basic knowledge and understanding of the modern instructional technology used for teaching of Electronics. Upon completing of this course the students should be able to select, use and use reliable and valid instructional technology. They should also be able to select the most appropriate instructional best suited for the topic. The students will become familiar with the professional as well as ethical issues in use of using instructional technology. The course will also provide an understanding of the basic terminology, methods, designs and models as they relate to the area of Technical & Geometrical Drawing. It develops awareness about the procedures and options available worldwide in Instructional Technology in professional pursuit.

Learning Outcomes

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

1. Understand the concept of instructional technology.
2. Recognize the importance of instructional technology in Technical Education.
3. Relate the use of instructional technology with various methods of teaching.
4. Know the modern instructional technologies being used worldwide.
5. Design instructional technology with the help of low cost no cost material.
6. Plan science lessons incorporating instructional aides and best teaching method.
7. Know the advantages and limitations of various instructional technologies.
8. Make effective use of computers in teaching Technical & Geometrical Drawing.
9. Make effective use of laboratory apparatus in teaching concepts of Technical & Geometrical Drawing.

Contents

1. Nature of Technical & Geometrical Drawing as a field of Technical Education

1.1 What is the nature of Technical & Geometrical Drawing?
1.2 Application of Scientific Method to study Technical & Geometrical Drawing.
1.3 How do Technologists conduct research? Some classic work in field of Technical Education.
1.4 Technical Education and the human welfare

2. Classroom Communication

2.1 What is teaching, learning and instruction?
2.2 Elements of classroom communication
2.3 Barriers to classroom communication

3. Instructional Aids or Teaching Aids

3.1 What are the Instructional or teaching Aids
3.2 Importance of teaching aids
3.3 Different types of teaching aid material
3.4 Principles for selection of teaching aids
3.5 Principles for using of teaching aids

4. Media in Teaching and Learning of Technical & Geometrical Drawing

4.1 Materials for visual communications: Bulletin Boards, Chalk Boards, Flannel Boards, etc.
4.2 Graphic Materials: Graphs, Charts, Cartoons, Maps and Globes

4.3 Still Pictures:
4.3.1 Opaque projector
4.3.2 Over-head projector and transparencies
4.3.3 Slide projector and film slides
4.3.4 Filmstrip projector and filmstrip
4.4 Audio-Materials, Radio and Tape-Recorder
4.5 Motion Pictures, Films and Video
4.6 Real things, Models and Demonstrations
4.7 Games, Simulations

4. Methods and Procedures in Individualized Teaching Strategies for Technical & Geometrical Drawing

4.1 Rationales and significant features
4.2 Methods of Individualization
4.3 Programmed Instruction
4.4 Computer Assisted Instruction and Computer Managed Instruction
4.5 Modular Instruction
4.6 Personalized System of Instruction
4.7 Individually Prescribed Instruction
4.8 Audio-tutorial Method

5. Designing Instruction in Technical & Geometrical Drawing

5.1 Designing Instructional Sequence
5.2 Model for Systematic Planning of Instruction
5.3 Steps in Instructional Planning
5.4 Designing Individual Lesson/unit Planning

6. Designing Conceptual Toolkit for teaching Technical & Geometrical Drawing

6.1 What is the significance of low cost no material in teaching
6.2 Types of low cost no material
6.3 Use of low cost no cost material
6.4 Concept of toolkit
6.5 Use of low cost no material in developing toolkit for different arts n crafts concepts

7. Use of modern Instructional Technology in teaching of Technical & Geometrical Drawing

7.1 Use of smart interactive white boards for teaching Technical & Geometrical Drawing
7.2 Use of LCD projector for teaching Technical & Geometrical Drawing
7.3 Creating blogs and websites for teaching Technical & Geometrical Drawing
7.4 Use of on line media for teaching Technical & Geometrical Drawing

8. Designing Instructional modules for teaching Technical & Geometrical Drawing

8.1 What is modular instruction?
8.2 Lesson planning for modular instruction for teaching Technical & Geometrical Drawing
8.3 Planning technology for modular instruction

Assessment and Examinations

The students will be assessed according to the following criteria.

Examination	Marks Distribution
Sessional work	25 %
Mid Semester	35%
Final Semester	40%

Suggested Readings

Hassell-Corbiell, R. (2001).*Developing Training Courses : A Technical Writer's Guide to Instructional Design and Development*._____.

Leonard, A. A. & Minogue, J.(2018). *Connecting Science and Engineering Education Practices in Meaningful Ways: Building Bridges.*_____.

Campana, D. M. (2010). The *Teacher of Geometrical Drawing - For High Schools, Manual Training Schools, Technical Schools Etc.*Read Books.

AIOU. (2006). *Population Education Course* MA EPM 584. Islamabad: AIOU.

Govt. of Pakistan. (2003). *Education for All.* Islamabad: Ministry of Education Curriculum Wing.

Haltak, J. (1990). *Investing in the Future, Setting Educational Priorities in the DevelopingWorld.* Paris, UNESCO: McGraw-Hill Kogakusha.

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Ministry of Education, Curriculum Wing (2010). *13 Modules on Various Core Themes of Population Education*, Islamabad:_____.

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Rao, V. K. (2004). *Population Education.* New Delhi: Efficient Printer.

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Winter, S. H. (2010). *Elementary Geometrical Drawing. Part II - The Practical Geometry Of Planes And Solids.* _____.

CONTEMPORARY ISSUES & TRENDS IN TECHNICAL & GEOMETRICAL DRAWING

Course Code: EDBET373 **Credit Hours: 3**

Course Description

The broad purpose of this course is to develop students' knowledge, skills, and abilities as technology educationist. In particular, this course aims to develop at high level of understanding and a critical analytic perspective across a diverse range of trends and issues in Technical & Geometrical Drawing by focusing on conceptual, theoretical and substantive research findings found in the academic research literature in the field.

Learning Outcomes Upon completion of this course, the students:

13. Will develop knowledge and skills that enable the student to evaluate, critique, and ultimately contribute to the scholarly literature in Technical & Geometrical Drawing.
14. Should have improved their written and verbal communication and analytical skills and feel comfortable discussing theoretical and methodological issues in a scholarly manner.
15. Will gain an appreciation of the development of knowledge in a range of topic areas.
16. will learn about the institutions, systems, and practices found in academic as well as research process in Technical & Geometrical Drawing

Contents

1 Education as a Complex Enterprise
- 1.1 Diversity of aims and approaches in education.
- 1.2 Variety of philosophical approaches to education.
- 1.3 Education in different periods and societies

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- 2.1 Technical School: origin, aims and Learning Outcomes
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- 3.1 Literacy and individual rights
- 3.2 Factors affecting program for universal literacy: medium of instruction
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- 4.2 Factors affecting the status and role of women
- 4.3 Steps towards reducing gender disparity.

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- 5.2 Factors affecting Population Education
- 5.3 Impact of Population Growth on National Development.
- 5.4 Roles and responsibilities of family, school, mosque and community in population education.
- 5.5 Steps towards population planning and welfare.

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- 6.1 Types of pollution
- 6.2 Causes of pollution
- 6.3 Environmental education

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- 7.1 Government resources and multiple demands
- 7.2 Need of private sector education
- 7.3 Challenges of quality education

8 Information in Technical Education
- 8.1 New concept of information explosion
- 8.2 Expanding learning resources
- 8.3 Information and communication technology (ICT) literacy
- 8.4 Technology in education

Having studied these contents, the students will reflect over following trends and issues in specific context of Technical Education

Issues in Technical Education

1. Technological contents and religious conflicts
2. Globalization of Technical Education
3. Practical assessment in Technical education
4. One size fits all? Comparative effectiveness of various methodologies in teaching science
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7. Teacher education in Pakistan
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10. Regional disparity in Technical Education
11. Should science curriculum be diversified?
12. Medium of Instruction for Technical Education. An exploratory approach
13. Demands of 21st century and our Technical Education curriculum. An analytical approach.
14. Our Technical Education textbooks: source of knowledge or source of misconceptions

Trends in Technological Education

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3. Program for International Students Assessment (PISA): Introduction & Major findings in arts & Experimental crafts & domain
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5. Constructivism in Technical Education: Practices in classroom and challenges
6. Constructivism in Technical Education: Assessment practices and challenges
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8. Scientific Inquiry
9. The role of Technical Education in environmental literacy
10. Science, Technology , Society (STS) connections
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15. Introduction to major research journals in Technical Education
16. Role of argumentation in Technical Education
17. Standards for 21st century Drafting laboratory
18. Standards for 21st century Electronics laboratory
19. Standards for 21st century mechanical laboratory
20. Career opportunities with Technical Education
21. Technical Education at higher education level: an introduction to degree programs offered in Technical Education round the world
22. Use of low cost no cost material in Technical Education

Assessment and Examinations

The students will be assessed according to the following criteria.

Examination	Marks Distribution
Sessional work	25 %
Mid Semester	35%
Final Semester	40%

Suggested Readings

AIOU. (2006). *Population Education Course* MA EPM 584. Islamabad: AIOU.

Campana, D. M. (2010). The *Teacher of Geometrical Drawing - For High Schools, Manual Training Schools, Technical Schools Etc.*_____: Read Books.

Govt. of Pakistan. (2003). *Education for All.* Islamabad: Ministry of Education Curriculum Wing.

Haltak, J. (1990). *Investing in the Future, Setting Educational Priorities in the Developing World.* Paris, UNESCO: McGraw-Hill Kogakusha.

Indira, M. (2003). *Changing Demands of Technical and Vocational Education.* New Delhi: Annual Publication.

Leonard ,A., Annetta, & Minogue, J. (Eds.) (2016). *Connecting Science and Engineering Education Practices in Meaningful Ways:* Building Bridges.Switzerland: Springer International Publishing.

Ministry of Education, Curriculum Wing (2010). *13 Modules on Various Core Themes of Population Education*, Islamabad:_____.

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UNESCO. (2004). *Quality of education in Pakistan.* Islamabad: UNESCO.

Warren, S. E. (2016). *A Manual of Elementary Geometrical Drawing Involving Three Dimensions: In Five Divisions, DIV. I. Elementary Projections DIV. II. Details of in Shades and Shadows DIV. IV.* Isometrica.

Winter, S. H. (2010). *Elementary Geometrical Drawing. Part II - The Practical Geometry Of Planes And Solids: Comprising the Elements of Descriptive Geometry, Etc. New Ed. 1880.*_____. Nabu Press.

(III) Area of Specialization Courses in Psychology
TEACHING OF PSYCHOLOGY

Course code: EDBER351 **Credit Hours: 3**

Course Description

This course intends to provide participants with a comprehensive coverage and analysis of contemporary trends and issues, basic mechanics and contextual sensitivities related to effective teaching in psychology. The course offers opportunities to understand and reflect on the basic elements of teaching and learning, the place of psychology curriculum at the higher secondary / intermediate level, the scholarship of teaching in psychology, approaches and strategies involved in the teaching and of psychology, the needs of diverse students, controversial issues in psychology, and the assessment of teaching of psychology.

Learning Outcomes

At the end of the course, the participants will:

1. Recognize teaching and learning of psychology as a body of knowledge
2. Identify goals and develop plans for the teaching of psychology at secondary / intermediate levels
3. Employ various approaches and methods for teaching of psychology
4. Recognize and attend to the individual, gender, social, and racial differences in the classroom
5. Maintain high ethical standards and sensitivity in teaching controversial topics in psychology
6. Assess the different methods of the teaching of psychology

Contents

1: Introduction to the teaching of psychology

- 1.1. What teachers need to know about teaching and learning
- 1.2. The scholarship of teaching and pedagogy
- 1.3. Psychology curricula and the new liberal arts
- 1.4. Communities for sharing ideas to enhance the teaching of psychology
  - 1.4.1. The society for the teaching of psychology
  - 1.4.2. The National Institute on the teaching of Psychology

2: Preparing for teaching

- 2.1. Plan a course or develop a syllabus – Some options
- 2.2. Setting instructional Learning Outcomes
- 2.2. Selections of texts – suggestions and warnings
- 2.3. Lesson planning and presentation in Psychology

3: Techniques of teaching – approaches and strategies

- 3.1. Classroom lecture
- 3.2. Writing in psychology
- 3.3. Collaborative learning
- 3.4. Problem-based learning
- 3.5. Leading discussions and asking questions
- 3.6. Building a repertoire of effective classroom demonstrations
- 3.7. Using technology

4: Teaching and mentoring diverse students

4.1 Teaching and mentoring students with disabilities
4.2. Mentoring female students
4.3. Teaching and mentoring racially and ethnically diverse students

5: Teaching controversial topics in psychology

5.1 Psychology of race and ethnicity
5.2. Psychology of gender
5.3. Psychology of religion

6: Assessment of teaching of psychology

6.1. Using student evaluations
6.2. Peer reviews
6.3. Teaching Portfolios
6.4 Assessment through tests in psychology
6.5 Other ways in assessment of teaching of psychology

Teaching-Learning

Cooperative learning
Group discussions
Lectures
Text-based readings
Technology-based assignments
Assignments preparation and presentations

Assessment

Mid-term: 35%
Formative*: 25%
Final assessment: 40%

**Attitude towards learning and participation in classroom activities/discussion will specifically be focused. All semester system rules of IER/PU will be observed.*

Suggested Readings

Buskist, W., & Davis, S. F. (Eds.). (2008). *Handbook of the teaching of psychology*. USA: Blackwell Publishing.

Halonen, J. S., Bosack, T., Clay, S., McCarthy, M., Dunn, D. S., Hill, G. W., Whitlock, K. (2003). A rubric for learning, teaching, and assessing scientific inquiry in psychology. *Teaching of Psychology, 30*(3), 196-208. doi: 10.1207/s15328023top3003_01

Myers, D. G. (2007). Teaching psychological science through writing. *Teaching of Psychology, 34*(2), 77-84. doi: 10.1080/00986280701291283

Myers, D. G. (2009). Using new interactive media to enhance the teaching of psychology (and other disciplines) in developing countries. *Perspectives on Psychological Science, 4*(1), 99-100. doi: http://dx.doi.org/10.1111/j.1745-6924.2009.01096.x

Meyers, S. A., & Prieto, L. R. (2000). Training in the teaching of psychology: What is done and examining the differences. *Teaching of Psychology, 27*(4), 258-261. doi: 10.1207/s15328023top2704_03

Perry, N. W., Huss, M. T., McAuliff, B. D., & Galas, J. M. (1996). An active-learning approach to teaching the undergraduate psychology and law course. *Teaching of Psychology, 23*(2), 76-81. doi: 10.1207/s15328023top2302_1

Instructional Technology for Teaching Psychology

Course code: EDBER352 **Credit Hours: 3**

Course Description

This course intends to provide participants with an advanced understanding of the fundamental role of instructional technology for the teaching of psychology at the higher secondary / intermediate level. The emphasis of the course is on the development of knowledge and skills necessary for the implementation and management of instructional technology in a variety of settings such as traditional face-to-face, online, text-based and other instructional contexts. Participants will be provided with ample opportunities to develop expertise in a wide range of instructional technologies and associated best practices. As a result, they will be able to demonstrate applied skills related to the teaching and learning of psychology, visual communication and instructional designs. Moreover, they will be able to work with content experts to develop training and instruction for the higher secondary / intermediate programs for the teaching of psychology.

Learning Outcomes

At the end of the course, the participants will:

7. Develop an understanding of the history and purpose of instructional technology in the field of psychology
8. Identify personal technology goals for the teaching of psychology at secondary / intermediate levels
9. Identify key media, information literacy and/or instructional technology issues in the teaching of psychology
10. Present lesson plans for the teaching of psychology at higher secondary / intermediate level by integrating technology
11. Identify and use technology-oriented resources in the field of psychology
12. Identify recent technological trends that are gaining popularity in the field of psychology
13. Identify how to integrate recent technological trends in the teaching of psychology

Contents

1: Historical and psychological perspectives on the use of educational / instructional technologies

1.5. Five domains of educational technology
1.6. Digital technology – advances and limitations
1.7. Media literacy
1.8. Integration of educational technology into learning – a historical perspective
1.9. Technology integration today

2: Instructional technology - knowledge and skills – what do you know and what do you need to learn?

2.1. Setting personal technology goals – at least two
2.2. Do to learn not learn to do
2.3. Self-regulation and learning logs
2.4. How to integrate media and information literacy into the teaching of psychology? - Presentation

3: Selection and evaluation of the use of technology in the classroom

3.1. Selection of relevant digital media for the psychology classroom
3.2. Evaluation of technology use for the enhancement of learning
3.3. ASSURE model of technology integration

4: Preparation of technology enhanced lessons for the teaching of psychology

4.1 Designing lesson plans for the teaching of psychology at the secondary / intermediate level

4.1.1. Preparing lesson plans

4.1.2. Integrating technology and other digital resources in the lesson plans (e.g., Web 2.0 resources such as Google classroom, WebCT, moodleetc; multi-media such as calendars, maps, videos; any free software)

4.1.3. Presenting lessons plans in the classrooms

4.1.4. Assessing lesson plans

5: Digital assessment tools used in the teaching of psychology

5.1 Tools for digital assessment

5.1.1. Spreadsheets and databases, e.g., Google Forms

5.1.2. Quiz lets

5.1.3. WiseApp

5.1.4. Optical scanning using a smartphone or tablet

6: New and emerging trends in instructional technology for the teaching of psychology

6.1 Professional associations of the scholars in Psychology

6.2. Contemporary communication tools

6.1.1. Blogs/RSS feeds

6.1.2. Online Journals

6.1.3. Listservs / Electronic discussion lists

6.1.4. The 'filter bubble'

7: Future trends and ethical concerns

7.1. Use of digital technology in the psychology classrooms and ethical issues

7.1.1. Artificial intelligence

7.1.2. Virtual reality

7.1.3. Mobile devices and distraction

7.1.4. Safety and the internet

7.2. Where is the internet going? How to keep up?

Teaching-Learning Strategies

Hands-on-learning
Demonstration
Cooperative learning
Lectures
Text-based readings
Project-based learning
Technology-based assignments
Technology portfolio
Assignments preparation and presentations

Assessment and Examinations

Mid-term: 35%
Formative*: 25%
Final assessment: 40%

**Attitude towards learning and participation in classroom activities/discussion will specifically be focused. All semester system rules of IER/PU will be observed.*

Suggested Readings

(2018). *Educational technology and mobile learning - A resource of educational web tools and mobile apps for teachers and educators.* Retrieved from https://www.educatorstechnology.com/

Dean, R. (2018). *A gadget for every need: Assistive technology for students. Assistive Technology*. Retrieved from https://www.edutopia.org/discussion/gadget-every-need-assistive-technology-students?utm_source=SilverpopMailing&utm_medium=email&utm_campaign=110916%20enews%20assistivetech&utm_content=&utm_term=fea2hed&spMailingID=15849589&spUserID=MjcyNjg1NTkzNDkS1&spJobID=902816789&spReportId=OTAyODE2Nzg5S0

Means, B., Toyama, Y., Murphy, R., Bakia, M., & Jones, K. (2009). *Evaluation of evidence-based practices in online learning: A meta-analysis and review of online learning studies*. Washington, D.C: U.S. Department of Education.

Myers, D. G. (2009).Using new interactive media to enhance the teaching of psychology (and other disciplines) in developing countries. *Perspectives on Psychological Science*, *4*(1), 99-100. doi: http://dx.doi.org/10.1111/j.1745-6924.2009.01096.x

Poirier, C. R., & Feldman, R. S. (2007). Promoting active learning using individual response technology in large introductory psychology classes. *Teaching of Psychology*, *34*(3), 194-196.doi: 10.1080/00986280701498665

Smaldino, S. E., Lowther, D. L., & Mims, C. (2019). *Instructional Technology and Media for Learning* (12th ed.). NY: Pearson.

Spencer, K. (1998). *The Psychology of Educational Technology and Instructional Media.* London: Routledge.

Trends and Contemporary Issues in Psychology

Course code: EDBER353 **Credit Hours: 3**

Course Description

This course deals with contemporary issues in the field of psychology in general, and educational psychology in particular. The key issues have implications for educational practice and are organized around four areas including developmental, learning and instruction, motivation and classroom management. The issues are presented in a pros and cons format with an overview and questions preceding each issue. Relevant readings are provided on the basis of wide range of issues, controversial issues, educational relevance and readability. Participants are encouraged to discuss and present their point of view in a collaborative setting.

Learning Outcomes

At the end of the course, the participants will:

14. Develop an understanding of the key issues in the field of research and practice in educational psychology
15. Aware of the trends in psychology, especially educational psychology
16. Understand the complex transactions of individual, social and contextual factors in the major areas of educational psychology
17. Identify issues other than projected in the content Contents for further exploration
18. Present a research study proposal encompassing the contemporary issues in educational psychology

Contents

1: Frames of inquiry in educational psychology

1.10. Why research in educational psychology?
1.11. Research methods
1.12. Program evaluation research, action research, and the Teacher-as-Researcher
1.13. Frames of inquiry - Beyond the quantitative qualitative divide

2: Developmental issues in educational psychology

2.1. Nature vs. Nurture
2.2. Continuous vs. discontinuous
2.3. Single vs. multiple courses
2.4. Early experience vs. later experience
2.5. Abnormal behavior vs. Individual differences
2.6. Domains of development (Cognitive, socio-cognitive, language and social)

3: Learning and Instruction

3.1. Major approaches to learning and instruction
  3.1.1. Behavioral
  3.1.2. Cognitive
  3.1.3. Social-constructivist

4: Motivation

4.1. Exploring motivation – identify key areas
  4.1.1. Perspectives on motivation
4.2. Achievement processes
4.3. Motivation, relationships and socio-cultural contexts
4.4. Exploring achievement difficulties

5: Managing the issues in classroom context

5.1. Why classrooms need to be managed effectively
5.2. Designing the physical environment of the classroom
5.3. Creating a positive learning environment
5.4. Being a good communicator
5.5. Identifying and handling with students having behavioural problems

6: Bringing it all together

6.1. Identifying critical issues in educational psychology other than present in the Contents
6.2. Developing a line of inquiry – Research study proposal in educational psychology
6.3. Presenting and debating issues
6.4. Establishing links with practice

7: Other trends and issues in psychology

7.1 Trends and issues in educational psychology
7.2 Trends and issues in social psychology
7.3 Trends and issues in cognitive and behavioural psychology

Teaching-Learning

Cooperative learning
Lectures
Text-based readings
Discussions
Presentations
Writing Assignment – Research Study Proposal in Educational Psychology

Assessment

Mid-term: 35%
Formative*: 25%
Final assessment: 40%

**Attitude towards learning and participation in classroom activities/discussion will specifically be focused. All semester system rules of IER/PU will be observed.*

Suggested Readings

Baltes, P. B. (1997). On the incomplete architecture of human ontogeny: Selection, optimization, and compensation as foundation of developmental theory. *American Psychologist, 52*, 366-380.

Bronfenbrenner, U. (1986). Ecology of the family as a context for human development: Research perspectives. *Developmental Psychology, 22*(6), 723-742.

Butler, D. L. (2006). Frames of inquiry in educational psychology: Beyond the quantitative-qualitative divide. In P. A. Alexander & P. H. Winne (Eds.), *Handbook of Educational Psychology* (2nd ed, pp. 903-929). Mahwah, N.J.: Lawrence Erlbaum.

Cherry, K. (2018). Issues in developmental psychology - Some of the big questions about how people develop. *Developmental Psychology*. Retrieved from https://www.verywellmind.com/issues-in-developmental-psychology-2795069

Journal of Behavioural Sciences, Institute of Psychology, University of the Punjab, Lahore.

Mitchella, A. W., & McConnell, J. R. (2012). A historical review of contemporary educational psychology from 1995 to 2010. *Contemporary Educational Psychology, 37*(2), 136-147.

Pintrich, P. R. (2000). An achievement goal theory perspective on issues in motivation terminology, theory, and research. *Contemporary Educational Psychology, 25*, 92-104. doi: 10.1006/ceps.1999.1017

Turner, J. C., & Patrick, H. (2008). How does motivation develop and why does it change? Reframing motivation research. *Educational Psychologist, 43*(3), 119-131. doi: 10.1080/00461520802178441

Santrock, J. W. (2018). *Educational Psychology* (6th ed.). New York: McGraw Hill Education.

(III) Area of Specialization Courses in Statistics

TEACHING STATISTICS

Course code: EDBER356 **Credit Hours: 3**

Capsule statement

Statistics is becoming increasingly important in modern society, the relevance of developing statistical thinking in students across all levels of education has grown. Changes in what is expected in the teaching of statistics do not just concerned the amount but also the quality of the content. The experts' recommendations, suggest a data oriented approach to the teaching of statistics where students are expected to: design investigations; formulate research questions; collect data using observations, surveys, and experiments; describe and compare data sets; and propose and justify conclusions and predictions based on data. Learners are expected to deal with data in significant contexts and to take a critical stance on the analysis and interpretation of data and especially the abuse of data and statistics. The importance of developing statistical thinking and reasoning and not just statistical knowledge in students is being emphasized. The learners will also learn how to teach different concepts of statistics?

Learning Outcomes of the course

On successful completion of the course, prospective teachers/novice researchers will be able to:

1. Understand the need of teaching statistics
2. Use practical examples related to teaching statistics
3. Apply different techniques for teaching statistics
4. Engage in different activities related to statistics.
5. Motivate students as active learners

Contents

1. **Introduction**
   - 1.1 The challenge of teaching introductory statistics
   - 1.2 Fitting demonstrations, examples, and projects into a course
   - 1.3 What makes a good example?
   - 1.4 Why is statistics important?
   - 1.5 The best of the best
   - 1.6 General methods and techniques of teaching statistics
2. **Familiarity with Data**
   - 2.1 **Gu**essing ages
   - 2.2 Where are the cancers?
   - 2.3 Estimating a big number
   - 2.4 What's in the news?
   - 2.5 Collecting data from students
3. **Descriptive Statistics**
   - 3.1 Teaching descriptive statistics
   - 3.2 Displaying graphs on the blackboard
   - 3.3 Time series
     - 3.3.1 World record times for the mile run
   - 3.4 Numerical variables, distributions, and histograms
     - 3.4.1 Categorical and continuous variables
     - 3.4.2 Handedness

Teaching-learning Strategies

The instructional strategies will focus on constructionist learning approach. These strategies will be diverse in line with the course contents. Therefore, these strategies will include but not limited to demonstration, cooperative learning, collaborative learning, teacher and student-led discussion, individual and group presentations, reflective practices and classroom activities.

Assessment and Examinations

The students will be assessed according to the following criteria

Examination	Marks Distribution
Sessional Work	25%
Mid-Semester	35%
Final Semester	40%

Suggested Readings

Gelman, A., & Nolan, D. (2017).*Teaching statistics: A bag of tricks*. OxfordUniversity Press.

Ben-Zvi, A. &Gravemeijer, K.R. E. (2004). Learning to reason about distributions. In, D. Ben-Zvi & J. Garfield (Eds.), *The challenge of developing statistical literacy, reasoning, and thinking* (pp. 147-168). Dordrecht: Kluwer Academic.

Bland, J. M. (2004). Teaching statistics to medical students using problem-based learning: the Australian experience. *BMC Medical Education*, *4*(1), 31.

Cobb, G. (1992). Teaching statistics. *Heeding the Call for Change: Suggestions for Curricular Action*, *22*, 3-43.

Dolinsky, B. (2001). An active learning approach to teaching statistics.*Teaching of Psychology*,*28*(1), 55-56.

Everson, M., Zieffler, A., & Garfield, J. (2008). Implementing new reform guidelines in teaching introductory college statistics courses. *Teaching Statistics*,*30*(3), 66-70.

Garfield, J., & Ben Zvi, D. (2007) How students learn statistics revisited: A current review of research on teaching and learning statistics. *International Statistical Review*, *75*(3), 372-396.

Mills, J. D. (2003). A theoretical framework for teaching statistics. *Teaching Statistics*, *25*(2), 56-58.

Pratt, D., Davies, N., & Connor, D. (2011).The role of technology in teaching and learning statistics. In *Teaching statistics in school mathematics-challenges for teaching and teacher education* (pp. 97-107). Dordrecht: Springer.

Instructional Technology for Teaching Statistics

Course code: EDBER357 **Credit Hours: 3**

Course Description

Computer application of statistics course is a basic introductory statistics course offered at our institution. The Contents includes descriptive statistics, probability, random variables, sampling distributions, inferential statistics and regression analysis. After completing the course, students should be able to recognize and apply these concepts in specific cases. Although no statistics or calculus class is required or assumed of students who take this course.

Learning Outcomes

On successful completion of the course, prospective teachers/novice researchers will be able to:

1. Understand the importance and use educational statistics.
2. Know that how statistics can be taught through instructional technology
3. Understand about different technological applications used in statistics
4. Differentiate between different statistical procedures
5. Know about how computers can be used in statistics
6. Understand that how it is assessed by using technology

1: Introduction to Statistics

1.1. Basic Terminology
1.2. Role of Statistics in Educational Research
1.3. Variables and Constant
1.4. Population and Sample
1.5. Data Structures, Research Methods, and Statistics
1.6. Random Sampling
1.7. Statistical Notation

2: Selection among Statistical Procedures

2.1. Descriptive Statistics
2.2. Inferential Statistics
2.3. Applied Statistics
2.4. Variables and Constants
2.5. Parameter and Statistics
2.6. Scales of Measurement

3: Statistics and Computer

3.1. Using Computers in statistics
    3.1.1. Coding data
    3.1.2. Defining variables
    3.1.3. Entering data
    3.1.4. Findings frequencies, mean, median
    3.1.5. Draw bar graph
    3.1.6. Applying t-test, ANOVA
3.2. Do Statistics Lie?
3.3. Some Tips on Studying Statistics

4: Technology and Statistics

4.1. Introduction
4.2. Need of Technology in Statistics
4.3. Integration of Technology in Statistics
4.5. The Role of Technology in Improving Student Learning of Statistics
4.6. Importance of technology in student learning
4.7 Obstacles to Incorporating Technology in the Statistics
4.8. Recommendations for Using Technology in Teaching Statistics

5: Technological Tools: Teaching of Statistics and Probability

5.1. Statistical Software Packages
5.2. Educational Software
5.3. Spreadsheets
5.4. Applets/Stand-alone Applications
5.5. Graphing Calculators
5.6. Multimedia Materials
5.7. Data and Materials Repositories

6: Assessment of Using Technology for Teaching Statistics

6.1 General Approaches for Assessing Instructional Technology
6.2 Efforts to Assess Internet-based Instructional Technologies

Teaching-Learning Strategies
Hands-on-learning
Demonstration
Cooperative learning
Lectures
Text-based readings
Project-based learning
Technology-based assignments
Technology portfolio
Assignments preparation and presentations

Assessment
Mid-term: 35%
Formative*: 25%
Final assessment: 40%

**Attitude towards learning and participation in classroom activities/discussion will specifically be focused. All semester system rules of IER/PU will be observed.*

Assessment and Examinations

The students will be assessed according to the following criteria

Examination	Marks Distribution
Sessional Work	25%
Mid-Semester	35%
Final Semester	40%

Suggested Readings

Chance, B., Ben-Zvi, D., Garfield, J., & Medina, E. (2007). *The Role of Technology in Improving Student Learning of Statistics*. Retrieved frhttps://escholarship.org/content/qt8sd2t4rr/qt8sd2t4rr.pdf.

Coladarci, T., & Cobb, C. D. (2013). *Fundamentals of statistical reasoning in education* (4th ed.). US: Jay O'Callaghan.

Einspruch, E. L. (2005). *An introductory guide to SPSS for windows* (2nded). London: Sage Publications.

Howell, D.C. (2011). *Fundamental statistics for the behavioral sciences* (7thed). Wadsworth: Cengage Learning.

Howell, D.C. (2014). *Statistical methods for psychology* (8thed). Wadsworth: Cengage Learning.

King, B. M., Rosopa, P. J., & Minium. E. W. (2011). *Statistical reasoning in the behavioral science* (6th ed). US: John Wiley & Sons, Inc.

Pallant, J. (2010). *SPSS survival manual: A step by step guide to data analysis using SPSS* (4thed). New York: McGraw-Hill Education.

Rade, L., & Sweden, G. (1990). *Statistics and the computer.* Retrieved from https://iase-web.org/documents/papers/icots3/BOOK1/C8-2.pdf

Ravid, R. (2011). *Practical statistics for educators* (4thed). US: Rowman & Littlefield Publishers, Inc.

Rowell, G. H. (2004). *Assessment of Using Technology for Teaching Statistics.* Retrieved from http://www.rossmanchance.com/artist/proceedings/rowell.pdf

Trends and Contemporary Issues in Statistics

Course code: EDBER358 **Credit Hours: 3**

Capsule Statement

The field of statistics is the science of learning from data. Statistical knowledge helps you use the proper methods to collect the data, employ the correct analyses, and effectively present the results. Statistics is a crucial process behind how we make discoveries in science, make decisions based on data, and make predictions. Statistics allows you to understand a subject much more deeply. Statistics is crucial in modern society. The course on trend and contemporary issues in Statistics is offered for awareness about resent trends in statistics. The Contents may change from semester to semester as new research will emerge.

Learning Outcomes

On successful completion of the course, prospective teachers/novice researchers will be able to:

1. Understand the terms trend and issues with Suggested Readings to statistics
2. Know the role of recent trends and issues in statistics
3. Use of statistics in different fields
4. Use of statistics in educational Research
5. Aware of the new trends in statistics
6. Aware contemporary issues in statistics

Contents

1. Conceptual understanding of trends and issues
2. Randomization and bootstrapping: The quick way to inference
3. Using simulation/randomization to introduce p-value in week 1Re
4. Intuitive introduction to the important ideas of inference
5. Statistics for all students
6. Measuring university students' approaches to learning statistics: a cross-cultural and multilingual version of the ASSIST
7. A comparison of attitudes between traditional and hands-on classes in an introductory statistics course
8. Introductory statistics in the 21st century
9. Open data, civil society and monitoring progress: Challenges for statistics education
10. A Journey to Lifelong Statistical Literacy
11. Teaching statistics for engagement beyond classroom walls.
12. Taking statistical literacy to the masses with YouTube, blogging, Facebook and Twitter
13. Statistical literacy requirements for teachers
14. Developing statistical knowledge for teaching of variability through professional development

15. Teachers' views related to goals of the statistics classroom – from global to content-specific
16. Towards statistical literacy - relating assessment to the real world
17. Sufficiently assessing teachers' statistical literacy
18. Developing statistical literacy amongst in-service teachers through a collaborative project
19. Making sense of census data
20. More ways to Heaven than one: improving statistical literacy in Ireland
21. Statistics and probability curriculum development for future elementary teachers in Chile: collaboration among countries
22. Building strength from compromise: a case study of five-year collaboration between the Statistical Services Centre of the University of Reading, UK, and Maseno University, Kenya
23. Conducting successful cross-institutional research in statistics education
24. Peer learning in statistics beyond the University curriculum.
25. Teaching statistics through the law
26. Randomization-based statistical inference: A re-sampling and simulation infrastructure
27. Why *Teaching Statistics* is so important and challenging
28. Using an R shiny to enhance the learning experience of confidence intervals
29. The challenge of teaching statistics to non-specialists. *Journal of Statistics Education*

Assessment and Examinations

The students will be assessed according to the following criteria

Examination	Marks Distribution
Sessional Work	25%
Mid-Semester	35%
Final Semester	40%

Suggested Readings

ICOTS9 Conference Proceedings: 9th International Conference on Teaching Statistics.

Journal of Statistics Education: JSE is a publication of the American Statistical Association

Teaching Statistics: International Journal of Statistics.

Yilmaz, M. R. (1996). The challenge of teaching statistics to non-specialists. *Journal of Statistics Education*, *4*(1), 1-9.

STUDENTS TEACHING AND OBSERVATION-I

(With the emphasis of specialization in English)

Course code: EDBEL354 **Credit Hours: 3**

Course Description:

This course provides the experience secondary school, science teachers with carefully sequenced and supervised field experiences in all subject areas related to science disciplines. Opportunities to work with secondary level students are provided. As a student teacher it is required that they will work with students of various backgrounds and of different capabilities. The developmental

Learning Outcomes

Student teachers will be able to:

1. Reflect on and learn from connecting theory to their teaching practice.
2. Collaborate with peers, cooperating teachers, other school staff and university supervisor, establishing professional relationships.
3. Invite. accept and utilize formative feedback from the cooperating teaching, peers, and the university supervisor in a non-defensive manner
4. Produce plans for teaching and learning that reflects the use of appropriate instructional methods and strategies to meet the needs of all students.
5. Utilize appropriate instruments or techniques informally and formally accessing students' learning needs
6. Recognize cognitive and affective need of students and establish learning environment and use activities appropriate to meet those needs,
7. Maintain their lesson plan and use it effectively.

Course Activities.

Week No	Activities
1	**Orientation based activities (Introduction to the school and Classroom context)** 1. Complete orientation based assignments 2. Conduct classroom observations 3. Observe the classroom environment, placement of materials, arrangement of workspaces and traffic patterns 4. Classroom interactions 5. Assist the cooperating teacher as requested 6. Small administrative tasks 7. Helping individuals or small groups of children 8. Preparation of lesson planner 9. Reflection on learning of this week
2	**Becoming actively involved in the classroom** 1. Initiate working on lesson plans 2. Conduct classroom observations 3. Start classroom practice teaching 4. Reflection on learning of this week

3 **Taking an active role as mentor, and expert in formal assessment**

- Refines classroom practices in teaching

5. Designs effective items for formative assessment
6. Assist the cooperating teacher as requested
7. Reflection on learning of this week

4 **Assuming responsibility for student social and moral development**

- Refines classroom practices in teaching

8. Complete classroom observations
9. Designs co-curricular and extracurricular activities for class students
10. Reflection on learning of this week

5 **Assuming responsibility for planning, teaching and assessing using laboratory for the respective subject**

- Refines classroom practices in teaching
- Makes effective use of laboratory in teaching
- Helps students conducting experiments in laboratory

11. Complete classroom observations
12. Reflection on learning of this week

6 **Assuming responsibility for planning, teaching and any additional responsibilities as negotiated with the cooperating teacher and university supervisor**

13. Completes lesson planner for final submission
14. Plans a self-evaluation report on his/her teaching
15. Assist the cooperating teacher as requested
16. Reflection on learning during whole period of practice teaching

Teaching-learning Strategies

The instructional strategies will focus on constructionist learning approach. These strategies will be diverse in line with the course contents. Therefore, these strategies will include but not limited to demonstration, cooperative learning, collaborative learning, teacher and student-led discussion, individual and group presentations, reflective practices and classroom activities.

Assessment and Examinations

The students will be assessed according to the following criteria.

Activity	Marks Distribution
Lesson Planar	30 %
Attendance & Discipline	20%
Classroom Teaching	50%

Suggested Readings

Arends, R., & Castle, S. (1991). *Learning to teach* (Vol. 2). New York: McGraw-Hill.

Burden, P. R., & Byrd, D. M. (1994). *Methods for effective teaching* (Vol. 160). Needham Heights, MA: Allyn and Bacon.

Fraser, D., & McGee, C. (Eds.). (2012). *The professional practice of teaching*. Cengage

Ghaye, T. (2010). *Teaching and learning through reflective practice: A practical guide for positive action*. New York: Routledge.

Hoy, A. W., Hoy, W. K., & Hoy, A. W. (2003). Instructional leadership: A learning-centered guide. Boston: Allyn & Bacon.

Killen, R. (2006). *Effective teaching strategies: Lessons from research and practice*. Australia: Cengage Learning.

Lavigne, A. L., & Good, T. L. (2015). *Improving teaching through observation and feedback: Beyond state and federal mandates*. New York: Routledge.

Payant, C. (2013). Practice Teaching: A Reflective Approach._____.

Richards, J. C., & Farrell, T. S. (2011). *Practice teaching: A reflective approach*. New York: Cambridge University Press.

UNESCO. (2004). *Changing teaching practices: using curriculum differentiation to respond to students' diversity*. France:Author.