PANJAB UNIVERSITY, CHANDIGARH -160014 (INDIA)
(Estd. Under the Panjab University Act VII of 1947- enacted by the Govt. of India)

FACULTY OF EDUCATION

SYLLABI

FOR

M.ED. EDUCATIONAL TECHNOLOGY (E.T.)
(Semester System)

EXAMINATION, 2014-2015

APPLICABILITY OF REGULATIONS FOR

THE TIME BEING IN FORCE

Notwithstanding the integrated nature of the course spread over two semesters in one academic year, the regulations in force at the time a student joins a course shall hold good only for the examinations held during or at the end of each semester. Nothing in these regulations shall be deemed to debar the University from amending the regulations subsequently and the amended regulations, if any, shall apply to all students whether old or new.

OUTLINES OF TESTS, SYLLABI AND COURSES OF READING FOR THE DEGREE OF M.Ed. EDUCATIONAL TECHNOLOGY (SEMESTER SYSTEM) FOR THE EXAMINATION OF 2014-15

M.ED. (EDUCATIONAL TECHNOLOGY)

ONE YEAR REGULAR COURSE CREDIT BASED SEMESTER SYSTEM

Objectives for the Course:

The M.Ed. (Educational Technology) has been designed to realize the following objectives:

After completing the course, going through the relevant references and completing the course assignments and the prescribed practicals, the students are supposed to be able to:

- Identify points of consonance and dissonance in today's educational practices and educational expectations.
- Develop ability to design courses for specified purposes and specified levels along with the capability to monitor their institutionalization.
- Develop capability to design instructions applying scientific principles of instructional designs.
- Develop insight into the vast array of teaching and learning processes for individual classroom and non formal settings.
- Develop working competence with popularly used instruments in classrooms.
- Develop capability of conducting and reporting classroom research.

RULES AND REGULATIONS FOR ADMISSION:

Eligibility

A person who possesses the following qualifications shall be eligible to join the course:-

(a) A degree in Bachelor of Education/equivalent degree of this University or from any other University/Institution recognized by AIU; with 55% marks (50% in case of SC/ST/BC candidates.)

OR

Any other qualifications recognized by the Syndicate as equivalent to (a).

(b) Qualify Entrance Test for M.Ed. with at least 20% marks (15% in case of SC/ST/BC and blind candidates.)

NOTE FOR ADMITTED CANDIDATES:

Admitted candidates are required to complete successfully the study of six papers including one dissertation which is a compulsory part of the course so as to satisfy the criteria of NCTE for award of degree of M.ED. (E.T.). The student has to obtain 60 credits towards fulfilment of course completion criteria. The University allows for CBCS and the student is free to explore feasibility for study of courses of his/her choice without compromising on attendance and other requirements of M.Ed. (ET) course. Further:

1. A student is required to have a minimum of 75% attendance in each paper in each semester to be eligible to appear in the end semester exams.

2. A student earns credits in each paper if he/ she obtains the minimum 40% pass marks in each course/ paper.

3. Each course of 5 credits will have teaching sessions of five hours (including Lectures, Tutorials, Practicals, Sessional work) per week.

4. There will be provision of reappear maximum in two papers. Reappear candidates will be allowed to appear as per Panjab University Norms/ Calendar.

5. Date of submission for Synopsis will be 30th November and for Dissertation, it will be 31st May.

Fee Structure

The fee structure for this course is as prescribed by Panjab University from time to time.

M.ED. EDUCATIONAL TECHNOLOGY (SEMESTER I)

PROGRAMME CODE: MEDET-I

PROGRAMME OUTLINE, LIST OF COURSES AND EVALUATION

S. No.	Course Code	Course title	Credits	Evaluation				
				EXTERNAL	INTERNAL	SESSIONAL WORK	PRACTICAL	TOTAL
1	C01-PSF-I	THEORETICAL BASES OF EDUCATIONAL PROCESS-I (Philosophical and Sociological Foundations)-I	5	60	20	20	-	100
2	C02-PLI-I	PSYCHOLOGICAL INTERPRETATION OF LEARNING AND IMPLICATIONS FOR INSTRUCTIONS-I	5	60	20	20	-	100
3	C03-RSA-I	RESEARCH IN EDUCATION AND STATISTICAL ANALYSIS-I	5	80	20	-	-	100
4	C04-CID-I	PROCESS OF COURSE DESIGNING - I	5	60	20	20	-	100
5	C05-DII-I	DESIGNING INDIVIDUALIZED INSTRUCTIONS-I	5	60	20	20	-	100
6	C06-ICU-I	INSTRUMENTS FOR CLASSROOM USE AUDIO VISUAL AND COMPUTERS-I	2.5	-	-	-	25 (Ext) 25 (Int)	50
7*	C07-DIS	DISSERTATION/ RESEARCH PROPOSAL	-	-	-	-	-	-

Note*: Assessment of Dissertation /Research Project would be done at the end of Semester- II

Aggregate of Semester-I: Total Marks = 550

Credits = 27.5

M.ED. EDUCATIONAL TECHNOLOGY (SEMESTER II)

PROGRAMME CODE: MEDET-II

PROGRAMME OUTLINE, LIST OF COURSES AND EVALUATION

S. No.	Course code	Course title	Credits	Evaluation				
				External	Internal	Sessional work	Practical	Total
1	C01-PSF-II	THEORETICAL BASES OF EDUCATIONAL PROCESS-II (Philosophical and Sociological Foundations)-I	5	60	20	20	-	100
2	C02-PLI-II	PSYCHOLOGICAL INTERPRETATION OF LEARNING AND IMPLICATIONS FOR INSTRUCTIONS-II	5	60	20	20	-	100
3	C03-RSA-II	RESEARCH IN EDUCATION AND STATISTICAL ANALYSIS-II	5	80	20	-	-	100
4	C04-CID-II	PROCESS OF INSTRUCTIONAL DESIGNING AND ICT IN EDUCATION-II	5	60	20	20	-	100
5	C05-DII-II	DESIGNING INDIVIDUALIZED INSTRUCTIONS-II	5	60	20	20	-	100
6	C06-ICU-II	INSTRUMENTS FOR CLASSROOM USE AUDIO VISUAL AND COMPUTERS-II	2.5	-	-	-	25 (Ext) 25 (Int)	50
7	C07-DIS	DISSERTATION/RESEARCH REPORT	5	75	25	-	-	100

Aggregate of Semester-II: Total Marks = 550

Dissertation = 100

Total = 650

Credits = 32.5

Grand Total = Semester-I + Semester-II (550 + 650) = 1200

Credits = (27.5 + 32.5) = 60

GUIDELINES FOR EVALUATION FOR CONTINUOUS INTERNAL ASSESSMENT

The following are the guidelines, mode of testing and evaluation for Continuous Internal Assessment of students. It may include written assignment, snap tests, participation in discussion in the class, term papers, attendance etc.

In order to incorporate an element of Continuous Internal Assessment of students, the Colleges/Departments will conduct one written test and one snap test as quantified below:

1.	Written Test	:	50 Marks
2.	Snap Test	:	15 marks
3.	Participation in Class discussion	:	10 marks
4.	Term Paper/ Assignment/ Presentation	:	15 marks
5.	Attendance	:	10 marks

Total :   100 (reduced to 20)

Weightage of 2 marks for attendance component out of 20 marks for Continuous Assessment shall be available only to those students who attend 75% and more of classroom lectures. The break-up of marks for **attendance component** for theory papers shall be as under:

Attendance Component	Marks for Theory Papers
a) 75% and above up to 85%	1
b) Above 85%	2

SESSIONAL WORK

All sessional work will be jointly evaluated by external and internal examiners.

Duration of each paper in the semester end examinations will be of three hours.

OUTLINES OF TESTS, SYLLABI AND COURSES OF READING FOR M.ED.

EDUCATIONAL TECHNOLOGY (SEMESTER SYSTEM)

FOR THE EXAMINATION OF 2014-2015

SEMESTER-I

Programme Code. MEDET- I

PAPER-I
COURSE CODE: C01-PSF-I
COURSE TITLE: THEORETICAL BASES OF EDUCATIONAL PROCESS-
        I (Philosophical and Sociological Foundations)-I

Credits= 5
Total Marks= 100
External= 60
Internal Assessment= 20
Sessional Work=20

COURSE OBJECTIVES

On the completion of the course, after studying the relevant references and finishing course assignments, the students shall be able to:

Identify the aims as suggested by the Western Schools of Philosophy.

Identify the aims as suggested by the Indian Schools of Philosophy.

Explain the modern concept of philosophy.

Derive goals and instructional objectives from the list of specified aims.

Explain the Bloom's taxonomy of educational objectives (Three Domains).

Write instructional objectives based on various models of writing instructional objectives.

Derive the course content for its contribution in the realization of objectives.

Derive the methods of education from different Western and Indian philosophical schools and national documents.

Discuss the contributions of Vivekananda, Tagore, Gandhi and Aurobindo to educational thinking.

COURSE CONTENT
Unit I

a)   Western schools of philosophy: Idealism, realism, Marxism, naturalism, pragmatism and existentialism with reference to their metaphysics, epistemology and axiology.

b)   Educational implications for aims, content and methods according to these philosophies.

c)   Analytical philosophy: logical analysis, logical empiricism and positive relativism.

Unit II

a) Indian schools of philosophy: Sankhya, Vendanta, Buddhism and Islamic traditions with reference to nature of knowledge, values and reality.
b) Educational implications for aims, content and methods according to these philosophies.

Unit III

a) Derivation of objectives from aims and goals: Their forms, types and taxonomy of educational objectives.
b) Models of formulating instructional objectives, Miller, Mager and Gagne.

Unit IV

a) Derivation of curriculum from different (i) Western and (ii) Indian schools of philosophy
b) Contributions of Swami Vivekananda, Rabindra Nath Tagore, Mahatma Gandhi and Aurobindo to education.

Sessional Work:

Text Book Evaluation.

OUTLINE FOR INSTRUCTION

Instruction for the course will be conducted through lectures, seminars and group discussions.

EVALUATION

Students will be evaluated through written examination of 3 hours duration. The theory paper will consist of 8 questions i.e. two questions from each unit, students will attempt four questions selecting one question from each unit. All questions will carry equal marks. Internal assessment carries 20 marks, based on performance of house tests, attendance, class room interaction, snap test, etc. Sessional work will be of 20 marks which will include evaluation of a text book of class VI to XII.

BOOKS RECOMMENDED

1. Aggarwal, J.C. (2005): Theory & Principles of Education, New Delhi, Vikas Publication House Pvt. Ltd.

2. Banerjee, A.C. and Sharma S.R. (1999): Sociological & Philosophical Issues in Education, Book Enclave, Jaipur.

3. Bhushan, A. and Ahuja, M. (2003): Educational Technology: Theory and Practice, Bawa Publishers, Patiala, (2nd edition)

4. Bloom, B.S. and Others (1971): Handbook of Summative and Formative Evaluation Student Learning, New York, McGraw Hill.

5. Bouanchand, B. (1997): The Essence of Yoga, Delhi: Satguru Publications.

6. Broudy, H.S. (1965): Building a Philosophy of Education, 2nd ed., Prentice Hall, Inc. 1962, Economy Ed., New Delhi.

7. Brubacher, J.S. (1962): Modern Philosophy of Education, Prentice Hall Inc. Englewood Cliffs, N.J.

8. Dewey, J. (1963): Democracy & Education, New York, The Macmillan Company.

9. Eraut, M. (1996): The International Encyclopedia of Educational Technology, Great Britain: Pergamon Press.

10. Jukes, I., Dasaj, A. and Macdonald, B. (2000): Net Savvy: Building Information Literacy in the Classroom, California: Corwin Press, Inc.

11. Mehra, V. (2010): A Text Book of Educational Technology, New Delhi, Sanjay Prakashan.

12. Naseema, C. and Alam, M.A. (2004): From Blackboard to the Web. Integrating Technology and Education, New Delhi: Kanishka Publishers, Distributors.

13. National Educational Commission, 1964-66.

14. National Policy of Education (1986): Ministry of Human Resource and Development, Department of Education, New Delhi.

15. Pophams, W.J. (1973): Evaluating Instruction, New York, Prentice Hall.

16. Sharma, Y.K. (2002): Fundamental Aspects of Educational Technology, New Delhi: Kanishka Publishers, Distributors.

17. Taneja, V.R. (2002): Foundation of Education (Philosophical and Sociological), Chandigarh: Abhishek Publications.

18. Unwin, D. (Ed.) (1969): Media and Methods: Instructional Technology in Higher Education, McGraw Hill, London.

19. Weerasinghe, S.G.M. (1993): The Sankhya Philosophy, A Critical Evaluation of its Origin and Development, Delhi: Satguru Publications.

PAPER-II

COURSE CODE: C02-PLI-I

COURSE TITLE: PSYCHOLOGICAL INTERPRETATION OF LEARNING AND IMPLICATIONS FOR INSTRUCTIONS-I

Credits= 5
Total Marks= 100
External= 60
Internal Assessment= 20
Sessional Work=20

COURSE OBJECTIVES:

On the completion of the course work, practical teaching and observation of lessons, the students shall be able to:

- Discuss the relationship of education and psychology.
- Describe the meaning of learning with emphasis on S-R learning theories and cognitive field theories.
- Explain the factors affecting learning.
- Explain the concept and types of motivation.
- Describe process of teaching of concepts, rules and problem solving.
- Explain concept and process of social learning.
- Describe the meaning, historical development and types of Educational Technology.
- Explain the concept, phases and operations of teaching
- Explain the meaning, elements and families of models of teaching.

COURSE CONTENT

Unit I

a)   Relationship of Education and Psychology.

b)   Learning: Concept, Nature, factors affecting learning, Different points of view about learning (Theoretical positions) with emphasis on S-R theories (Pavlov, Thorndike, Skinner & Hull) and Cognitive field theories (Kohler and Tolman).

c)   Motivation: Concept, types, its relation with learning, achievement motivation

Unit II

a)   Gagne's hierarchy of learning.

b)   Strategies for developing logical reasoning, critical thinking, concept formation and problem solving.

c)   Teaching and learning for different types of learning: concepts, principles and problem solving.

d)   Social learning: concept and importance, factors affecting social learning, social conformity, social competence.

Unit III

a)   Concept and historical development of Educational Technology. Components of educational technology: hardware and software, major institutions of educational technology in India- CIET, IGNOU, SIET.

b)   Types of Educational Technology. Educational technology as systems approach to education.

c)   Concept of teaching, phases and operations in each phase of teaching

d)   Teaching at memory, understanding and reflective levels.

Unit IV

a)   Models of Teaching, elements and families of models of teaching.

b)   Basic Teaching Model, Bruner's, Ausubel's and Suchman's Models of Teaching: focus, syntax, social system, reaction system, instructional and nurturant effects.

Sessional Work:

Designing teaching learning process for concepts, rules and problem solving

OUTLINE FOR INSTRUCTION

Instruction for the course will be conducted through lectures, seminars and group discussions.

EVALUATION:

Students will be evaluated through written examination of 3 hours duration. The theory paper will consist of 8 questions i.e. two questions from each unit, out of which students will attempt one question from each unit. All questions carry equal marks. Internal assessment is of 20 marks, which is based on performance of house tests, attendance, class room interaction, snap test, etc. 20 marks for Sessional work will include designing instructions for concept learning, rule learning and problem solving.

BOOKS RECOMMENDED

1. Anastasi, A. and Urbia, S. (1997): Psychological Testing. Delhi: Pearson Education Inc.

2. Bhushan, A. and Ahuja, M. (2003): Educational Technology, Theory & Practice, Bawa Publishers, (2nd edition)

3. Briggs, A.R. J. and Sommefeldt, D. (2002): Managing Effective Teaching and Learning. London: Paul Chapman Publishing.

4. Dandekar, W.N. and Makhija, S.M. (2002): Psychological Foundations of Education, New Delhi: Macmillan India Ltd.

5. Decceco, John P. (1968): The Psychology of Learning and Instruction, Prentice Hall of India Pvt. Ltd., New Delhi.

6. Eggen, Paul, D. (1988): Strategies for Teachers Teaching Contact and Thinking Skills, New Jersey: Prentice Hall, Englewood Cliffs.

7. Hill, Winfred, F. (1968): Learning: A Survey of Psychological Interpretations, London, Methuen.

8. Joyce, B. Calhoun, E. and Hopkins, D. (2002): Models of Learning – Tools for Teaching. Philadelphia: Open University Press.

9. Joyce, B., Weil, M. and Calhoun E. (2009): Models of Teaching, New Delhi, Prentice Hall of India Private Ltd.

10. Mehra, V. (2004): Educational Technology, New Delhi, S.S. Publishers.

11. Michel, J. Dunken (1987): The International Encyclopedia of Teaching and Teacher Education, Oxford: Pergamon Press.

12. Ober, Richard L. (1971): Systematic Observation of Teaching, An Interaction Analysis – Instructional Strategy Approach, Englewood Cliffs, Prentice Hall.

13. Rao, U. (2008): Advanced Educational Psychology, Mumbai: Himalaya Publishing House.

14. Skinner, B.F. (1968): Technology of Teaching, New York, McGraw Hill.

15. Tickton, S. (Ed.) (1970): To Improve Learning I – II, New York, Baw Kev.

16. Vishnoi, U. (2007): Psychological Foundations of Education, New Delhi: KSK Publishers and Distributors

17. Woolfolk, A. (2004): Educational Psychology, New Delhi: Pearson Education.

PAPER-III

COURSE CODE: C03-RSA-I

COURSE TITLE: RESEARCH IN EDUCATION AND STATISTICAL ANALYSIS-I

Credits= 5
Total Marks= 100
External= 80
Internal= 20

COURSE OBJECTIVES:

After completing the course, going through the relevant references and doing the necessary practice for numerical skills, the students should be able to:

- Define educational research.
- Explain need and importance of educational research and types of research.
- Explain the scientific method in Educational Research.
- Describe different areas of research in Education
- Explain steps of educational research with special emphasis on defining, identifying research problem and variables of research.
- Explain the concept, types, significance and formulation of research hypotheses.
- Explain need and types of sampling.
- Describe the concept and application of Normal Distribution curve.
- Elaborate the concept of significance of difference and analyse given data for differences in means.
- Describe the concept and calculation of correlation.

COURSE CONTENT:

Unit I

a) Educational Research: Concept, Need, types (Fundamental, Applied and Action research) and Importance, scientific method in educational research.
b) Steps of Educational Research.
c) Areas of research and defining research problem, identifying and specifying the variables of research

Unit II

a) Concept, types, significance and formulation of research hypotheses, testing of hypotheses.
b) Sampling: need of sampling, types of sampling, sampling errors and Type I and type II errors.

Unit III

a) Scale of measurement: parametric and non parametric.
b) Measures of central tendency: Mean, Median, Mode and Graphical representation of data: Histogram, Pie Diagram, bar Diagram, Frequency Polygon and Ogive.
c) Measures of variability: Range, Average Deviation, Quartile Deviation and Standard Deviation.

Unit IV

a) Measures of relationship, Rank order correlation, product moment method of correlation and Significance of Correlation.
b) Normal Probability Curve: Concept, Characteristics and its application.

Evaluation

The students will be evaluated through external exam in theory of 3 hours duration Part I and II on the portion of:

(a) Research methods (Weightage 40 marks)
(b) Statistical Analysis (Weightage 40 marks)

Eight questions will be set by the external examiner, 4 from part I and 4 from part II. The students will be required to attempt 4 questions in all, selecting at least two from each of the parts I and II. All questions will carry equal marks, 20 marks are for internal assessment which is based on performance of house test, attendance, classroom interaction, snap test etc.

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BOOKS RECOMMENDED

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1. Ary, Donald and Jacob (1976): Introduction of Statistics, Purpose and Procedures, New York, Holt Rinehart and Winston.
2. Best, J.W. & Kahan J.V. (1995) : Research Education, Prentice Hall of India Pvt. Ltd., New Delhi.
3. Edwards, A.L. (1960) : Experimental Design in Psychological Research, New York, Holts (revised ed.).
4. Ferguson, G.A. and Takane Yoshio (1989) : Statistical Analysis in Psychology and Education.
5. Gakhar, S.C. (2008) : Statistics in Education and Psychology. N.M Publications.
6. Garrett, H.E. (1986) : Statistics in Psychology and Education, Vikils Feffers and Simons Pvt. Ltd.
7. Guilford and Fruchter(1978) : Fundamental Statistics in Psychology and Education.
8. Kaul, Lokesh (1984) : Methodology of Educational Research, Vikas Publishing House Pvt. Ltd., New Delhi.
9. Lindquist, E.F.(1953) : Design and Analysis of Experiments in Education and Psychology, Houghton Mifflin Co., Boston.
10. Siegel Sidney(1965) : Non-Parametric Statistics, McGraw Hill Books Company, New York.
11. Tuckman, B.W.(1972) : Conducting Educational Research, Harcourt Brace, Javanovich.12. 1 2 .
12. Verman, M.(1965) : Introduction to Educational and Psychological Research, Lond. Asia.

PAPER-IV

COURSE CODE: C04-CID-I

COURSE TITLE: PROCESS OF COURSE DESIGNING – I

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Credits= 5
Total Marks= 100
External= 60
Internal Assessment= 20
Sessional Work=20

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COURSE OBJECTIVES:

On the completion of the course work and Sessional work, the students shall be able to:

Define curriculum.
Identify components of the curriculum.
Explain foundations of curriculum.

Explain the different models of curriculum construction.

Explain the principles of curriculum construction.
Explain the determinants of curriculum.

Explain the types of curriculum evaluation.

Explain need of theory of curriculum design.

Explain the eclectic model of course design.

Explain Taba's Model of curriculum design.
Explain tools of curriculum evaluation.
Discuss the role teacher as curriculum maker.
Critically examine the school curriculum.
Explain future trends for curriculum.

COURSE CONTENT:

Unit I

a) Curriculum: Concept and components viz. objectives, content, transaction mode and evaluation.

b) Foundations of Curriculum: Epistemological, Social and Psychological. Learner and learning theories, types of curriculum designs; subject-centered, experience and activity- centered, core curriculum.

Unit II

a) Principles of Curriculum construction: Principles of formulating aims, specifying content, defining teaching learning experiences and evaluation procedures.

b) Determinants of curriculum.

c) Different models of curriculum construction-administrative, grass-root, demonstration, system analysis and eclectic model (with special reference to analysis of needs, selection/formulation of objectives, selection and organization of content and learning experiences and evaluation).

Unit III

a) Need of theory of curriculum design and development.

b) Curriculum evaluation: formative and summative. Tools of curriculum evaluation: observation, oral, interview, opinionnaire, project work, peer evaluation.

c) Role of teacher as a curriculum maker: integration of learning experiences related to work experiences, sensitivity to gender parity, peace oriented values, health and needs of children with disabilities, art and India's heritage.

Unit IV

a) Taba's model of curriculum development.
- Diagnosis of needs.
- Formulating course objectives.
- Selecting content
- Organizing content
- Selecting learning experiences

- Organizing learning experiences
- Evaluation
- Checking for balance and sequence

b) Critical appraisal of present curriculum in secondary schools of India.
c) Curriculum issues and future trends for curriculum NCF (2005).

Sessional Work:

Taba's course design (20 marks)

OUTLINE FOR INSTRUCTION:

Instruction for the course will be conducted through lectures, seminars and group discussion.

EVALUATION:

Students will be evaluated through written examination of 3 hours duration. The theory paper will consist of 8 questions i.e. two questions from each unit, out of which students will attempt one question from each unit. All questions will carry equal marks, 20 marks are for internal assessment, which is based on performance of house tests, attendance, classroom interaction, snap test, etc; 20 marks of sessional work will be based on a course design of Taba.

BOOKS RECOMMENDED

1. Bloom, B.S., Hastings, J.T. and Madaus, G.F. (1971): Handbook of Formative and Summative Evaluation Student Learning, New York, McGraw Hill.
2. Bruner, J.S. (1966): Towards a Theory of Instruction, Cambridge, Mass, Harvard University Press.
3. Cropper, G.L. (1974): Instructional Strategies, Englewood Cliff, N.J. Educational Technology Publications.
4. Davis, I.K. (1971): The Management of Learning, London, McGraw Hill.
5. Forsyth, I., Jolliffe, A. and Stevens, D. (1999): Evaluating a Course. Practical Strategies for Teachers, Lectures and Trainers. London: Kogan Page.
6. Forsyth, I., Jolliffee, A. and Stevens, D. (1999): Planning a Course. Practical Strategies for Teachers, Lectures and Trainers. London: Kogan Page.
7. Gagne, R.M. (1965): The Conditions of Learning, New York, Holt Rinehart and Winston, N.
8. Gagne, R.M. and Briggs, L.J. (1979): Principles of Instructional Design. New York: Holt, Rinehart and Winston.
9. Mehra, V. (1992): Instructional System Design: An Innovation in Educational Technology, New Delhi, S.S. Publishers.
10. Mehra, V. (2010): A Text Book of Educational Technology, New Delhi, Sanjay Prakashan.
11. Murrit, M.D. (Ed.) (1971): Instructional Design, Englewood Cliffs, N.J., Prentice Hall.
12. National Curriculum Framework (2005): New Delhi: NCERT.
13. Ornstein, A.C. and Hunkins, F.P. (1988): Curriculum: Foundations, Principles and Issues, Prentice Hall International Ltd. London.
14. Popham, J.M. and Baker E.L. (1970): Systematic Instruction, Prentice Hall, Inc. Englewood Cliffs, New Jersey.
15. Pratt, David (1980): Curriculum Design and Development, N.Y, Harcourt.

16. Romiszowski, A.J. (1986): Designing Instructional Systems, London: Kogan Page.

17. Taba, H. (1962): Curriculum Development: Theory and Practice, Harcourt Brace and World Inc., N.Y.

18. Taylor, P. (2003): How to Design a Training Course. A Guide to Participatory Curriculum Development. London: Continuum.

19. Zais, R.S. (1977): Curriculum: Principles and Foundations, London, Harper and Row Publishers,

PAPER- V

COURSE CODE: C05-DII-I

COURSE TITLE: DESIGNING INDIVIDUALIZED INSTRUCTIONS-I

Credits= 5
Total Marks= 100
External= 60
Internal Assessment= 20
Sessional Work=20

COURSE OBJECTIVES:

On the completion of the course, after going through the relevant references and completing the assignments, the students are supposed to:

Describe the surviving principles of programmed instruction.

Identify the characteristic features of different programming styles.

Select the styles for the given content and specified level of learners according to the characteristic features of programming with some frames of linear, branching and mathetic styles.

Differentiate between Linear and Branching Programme with respect to various characteristics.

Develop and Validate linear style of programmes.

Explain the meaning, types and validation of evaluation tools.

Explain emergence off new technologies in education.

Explain recent trends in educational technology.

COURSE CONTENT

Unit I

a) Psychological Basis of Programmed Instruction: Skinner's Theory of operant conditioning, schedules of reinforcement, shaping of behaviour through successive approximation and gradual Progression.

b) Concept and principles of programmed instruction.

c) Teaching Machines

Unit II

Different Styles of Programming: Their characteristic features, advantages, applicability and limitations.
   a) Linear.
   b) Branching and
   c) Mathetics
   d) Differences between linear and branching programmes.

Unit III

a) Developing of a programme (Preparation stage): Concept and specification of terminal behaviour, classification of objective (Bloom's taxonomy). Mager's approach to operational target behaviour and pre-requisite skills and developing tests for external behaviour and terminal behaviour.

b) Writing Stage: Components and types of frames, primes and prompts, designing and sequencing of frames, editing programmes.

c) Try out and Validation of Programme: Internal and external criteria of testing, viz., error rate, programming density, sequence progression, 90/90 standard, attitude coefficient etc.

Unit IV

a) Evaluation: concept and types of evaluation, characteristics and differences between development and validation of criterion referenced and norm referenced test.

b) Emergence of new technologies in education and their application: hypertext, video text, computer conferencing, Tele-conferencing, interactive video.

c) Recent trends in educational technology, use of ICT for conducting research, web resources for research.

Sessional Work

The students will prepare a linear programme of approximately 150 frames on a topic of their choice.

20 marks

OUTLINE FOR INSTRUCTION

Instruction for the course will be conducted through lectures, seminars and group discussions.

EVALUATION

Students will be evaluated through written examination of 3 hours duration. The theory paper will consist of 8 questions i.e. two questions from each unit. Students will attempt four questions in all selecting one question from each unit. All questions will carry equal marks. Internal assessment of 20 marks is based on performance of house tests, attendance, seminar, snap test, etc. Students will be assessed on their Sessional work by producing a linear programme of approximately 150 frames on a topic of their choice (20 marks).

BOOKS RECOMMENDED

1. Ahuja, M. (2007): Mastery Learning a Practical Approach, Vivek Publishers, Meerut.
2. Bhushan, A. and Ahuja, M. (2003): Educational Technology: Theory and Practice, Bawa Publishers, Patiala, (2nd edition).
3. Block, J.H. and Anderson, L.W. (1974): Mastery Learning in Classroom Instruction: New York, Macmillan.
4. Deva, V. (2003): E-Knowledge. New Delhi: Commonwealth Publishers.
5. Espich, I.E. and Williams (1967): Developing Programme Instructional Materials, Pitman, London.
6. Mager, R.T. (1961): Preparing Objectives for Programmed Instruction, San Francisco, Fearson.
7. Maier, P. and Warren. A. (2000): Integrating Technology in Learning and Teaching. London: Kogan Page.
8. Markle, S.M. (1969): Good Frames and Bad, New York, Wiley.
9. Mayer, R.E. (2001): Multimedia Learning. USA: Cambridge University Press.

PAPER- VI

COURSE CODE: C06-ICU-I

**COURSE TITLE: INSTRUMENTS FOR CLASSROOM USE AUDIO VISUAL
                AND COMPUTERS-I**

<div align="right">

Credits= 2.5
Total Marks= 50
Practical External= 25
Practical Internal=25

</div>

COURSE OBJECTIVES

After completing the course work and the practicals in the application and use of instruments to aid teaching and learning in classroom, the students are supposed to:

Describe theory behind working of each instrument

Identify different components of each instrument.

Draw the activity sequence diagrams for each instrument.

Operate upon each instrument and practice it at the autonomous level.

Diagnose minor failure of each instrument.

Prepare manual for at least one instrument.

COURSE CONTENT:

The students will be introduced to components, activity sequences, diagrams, operation and diagnosing minor failures of the following instruments:

Audio-cassette recorder

Overhead projector

Voice Recorder

CD Player

LCD Projector

Video Cassette recorder

Practice in handling and working with computers.

OUTLINE FOR INSTRUCTION:

It is a practical course where the students will learn to operate upon above mentioned instruments and develop mastery in their use for a variety of purposes. Each instrument will be introduced verbally followed by practical demonstration of its application by the Incharge teacher of the practicals. All the students will operate repeatedly for the variety of modes of their application until they develop mastery on the practical use of these instruments. For recording their practical work, they will

Prepare a practical file to report and record operations.

Prepare at least ten different types of transparencies.

Prepare at least two different video recordings.

Prepare a Power Point Presentation.

EVALUATION:

Students will be evaluated practically by the External examiner in a lab situation for the operation of instruments. The practical will be followed by a comprehensive viva-voce test. The competence in use of the appliances will carry 50 marks and the comprehensive viva will carry 50 marks.

BOOKS RECOMMENDED

1. Anderson, R.H. (1976): Selection and Developing Media Instruction, New York ,Van Nostrand Reinhold Company.

2. Brown, J.W., Lewis, R.B. and Harcle Road, F.F. (1985): AV Instruction Technology, Media and Methods. USA: Mc-Graw Hill, Book Company.

3. Dean, C. and Quentin, W. (1984): A Handbook of Computer Based Training, London, Logon Page.

4. Heibert Pay Eldon and Others (ed.) (1982): Mass Media III: An Introduction to Modern Communication, N.Y., Longman.

5. Heinich, R. M., Micheal Russeil J. (1993): Instructional Media and New Technologies of Instruction, N.Y., Macmillan Publishing Co.

6. Kemp. J. E. (1975): Planning and Producing Audio-Visual Materials, 3rd Ed., Thomas Y. Crowell, Inc. N.Y.

7. Schramm, W., (1985): Big Media, Little Media, Tools and Technologies for Instruction, Sage California.

8. Sleeman, P, J. and D.M. Rockwell (Ed.) (1976): Instructional Media and Technology: A Professional's Resource, Pennsylvania., Denden Hutching on and Ross, Inc..

9. Taxali, R.K. (2002): PC Software for Windows 98 Made Simple, New Delhi, Tata McGraw Hill Publishing Ltd.,

PAPER VII:
COURSE CODE : C07-DIS-I

COURSE TITLE: DISSERTATION/RESEARCH PROPOSAL

COURSE OBJECTIVES:

The objectives of dissertation are to:

Orient students to the process of research.

Enable them to identify a problem for undertaking the research project.

Enable them to prepare a synopsis on which they will conduct research in Semester II.

COURSE REQUIREMENT:

A research project will be taken up by each candidate under the supervision of a guide allotted to them by the Department's Academic Committee. They will follow steps of preparing a synopsis and report to their guides for its finalization. The students will submit synopsis on specified date.

EVALUATION

It will be internal evaluation by the guide. No marks will be given in Semester I.

SEMESTER-II

PAPER I:

COURSE CODE: C01-PSF-II

COURSE TITLE: THEORETICAL BASES OF EDUCATIONAL PROCESS- II
              (PHILOSOPHICAL AND SOCIOLOGICAL FOUNDATIONS)

Credits= 5
Total Marks= 100
External= 60
Internal Assessment= 20
Sessional Work=20

COURSE OBJECTIVES:

On the completion of the course, the students shall be able to:

- Explain the concept of sociology of education.
- Explain the meaning and nature of social change and constraints on social change in India.
- Explain education of socially and economically disadvantaged sections of society.
- Explain meaning and nature of culture.
- Explain impact of LPG (liberalization, privatization and globalization) on education.
- Relate education with society, community and family.
- Explain social stratification, social mobility and social change in Indian context.
- Relate education with politics, religion and culture with reference to democracy and secularism.
- Relate education to social equity and equality of educational opportunities.
- Explain national values as enshrined in the Indian Constitution and their educational implications.
- Explain the educational implications of major commissions, committees and national documents.

COURSE CONTENT:

Unit I
a) Sociology of education: concept and theoretical perspectives (functionalist, conflict and interactionist).
b) Social change: concept and determinants of social change, modernization, education as an agency of social change.
c) School as site for social change.
d) Education of socially and economically disadvantaged sections of society with special reference to scheduled castes and scheduled tribes, women and rural population.

Unit II

a) Culture: meaning and nature, cultural lag, Acculturization, relationship of culture and education.
b) Economy and education: impact of LPG (liberalization, privatization and globalization) on education.

Unit III

a) Relationship of education with society, community and family. Influence of education on social stratification and social mobility in the Indian context.
b) Relationship of education with politics, religion and culture. Education and democracy.
c) Education as related to social equity and equality of educational opportunities.

Unit IV

a) National values as enshrined in the Indian Constitution and their educational implications.

b) National documents such as Indian Constitution, its educational implications. Reports of the major commissions, University Education Commission (1948-49), Secondary Education Commission (1952-53), Indian Education Commission (1964-66), National policy of Education (1980) and CABE (1992) committees on Indian education with special emphasis on aims of education.

Sessional Work:

Group Presentation

OUTLINE FOR INSTRUCTION

Instruction for the course will be conducted through lectures, seminars and group discussions.

EVALUATION

Students will be evaluated through written examination of 3 hours duration. The theory paper will consist of 8 questions i.e. two questions from each unit. Students will attempt four questions in all selecting one question from each unit. All questions will carry equal marks. Internal assessment of 20 marks is based on performance of house tests, attendance, classroom interaction, snap test, etc. 20 marks for Sessional work will include group presentations.

BOOKS RECOMMENDED

1. Bhushan, A. and Ahuja, M. (2003): Educational Technology: Theory and Practice, Bawa Publishers, Patiala, (2nd edition).
2. Bloom, B.S. and Others (1971): Handbook of Summative and Formative Evaluation Student Learning, New York, McGraw Hill.
3. Bouanchand, B. (1997): The Essence of Yoga, Delhi: Satguru Publications.
4. Broudy, H.S. (1965): Building a Philosophy of Education, 2nd ed., Prentice Hall, Inc. 1962, Economy Ed., New Delhi.
5. Eraut, M. (1996): The International Encyclopedia of Educational Technology, Great Britain: Pergamon Press.
6. Jukes, I., Dasaj, A. and Macdonald, B. (2000): Net Savvy: Building Information Literacy in the Classroom, California: Corwin Press, Inc.
7. Mehra, V. (2010):AText Book of Educational Technology, New Delhi, Sanjay Prakashan.
8. Naseema, C. and Alam, M.A. (2004): From Blackboard to the Web. Integrating Technology and Education, New Delhi: Kanishka Publishers, Distributors.

9. National Educational Commission, 1964-66.

10. National Policy of Education (1986): Ministry of Human Resource and Development, Department of Education, New Delhi.

11. Pophams, W.J. (1973): Evaluating Instruction, New York, Prentice Hall.

12. Sharma, Y.K. (2002): Fundamental Aspects of Educational Technology, New Delhi: Kanishka Publishers, Distributors.

13. Taneja, V.R. (2002): Foundation of Education (Philosophical and Sociological), Chandigarh: Abhishek Publications.

14. Unwin, D. (Ed.) (1969): Media and Methods: Instructional Technology in Higher Education, McGraw Hill, London.

15. Weerasinghe, S.G.M. (1993): The Sankhya Philosophy, A Critical Evaluation of Its Origin and Development, Delhi: Satguru Publications.

PAPER-II

COURSE CODE: C02-PLI-II

COURSE TITLE: PSYCHOLOGICAL INTERPRETATION OF LEARNING AND IMPLICATIONS FOR INSTRUCTIONS-II

Credits= 5
Total Marks= 100
External= 60
Internal Assessment= 20
Sessional Work=20

COURSE OBJECTIVES:

On the completion of the course work and Sessional work, the students shall be able to:

- Discuss the determinants of individual differences.
- Describe the process of physical, social, emotional and intellectual development of the learner.
- Describe the development of concept formation, logical reasoning, problem solving and creative thinking.
- Discuss the concept and types of cognitive processes.
- Explain the Piagetian Model of Cognitive Development.
- Discuss the meaning of mental health and hygiene.
- Explain the theories and measurement of intelligence.
- Explain the psychology of individual differences with special reference to exceptional children.
- Discuss causes of maladjustment among students.
- Discuss the concept, theories and assessment of personality.
- Discuss concept and relevance of classroom dynamics.

- Analyse interaction in the classroom through Flanders, RCS and ETC systems of interaction Analysis.
- Explain the importance of modification of teacher behaviour through micro teaching and simulation.

COURSE CONTENT:

Unit I

a) Individual differences: determinants, role of heredity and environment, implications.
b) Process of growth and development of child and adolescent with respect to – Physical, Social, emotional and intellectual factors affecting each type of development.
c) Cognitive processes: sensation, attention, perception, cognition; Pigetian model of cognitive development.
d) Mental health and hygiene- concept, importance and process of adjustment; conflicts and defence mechanism.

Unit II

a) Intelligence: Concept of intelligence (from unitary to multiple intelligence), Theories (Spearman, Thurstone, Guilford, Gardner and Sternberg) and measurement. Assessment of multiple intelligence.
b) Psychology of individual differences – Types of exceptional children, gifted, backward and others with special needs. Determinants of individual differences, Education of exceptional children.

Unit III
a) Personality: concept, Weston theories by Cattell, Eysenck, Allport, Freud: Vedantic concept of personality (Panchkosh).
b) Assessment of personality and implications for teacher and learner.
c) Adjustment: causes and manifestation of maladjustment, defense mechanism, conflict and its management.

Unit IV

a) Classroom dynamics: concept, need and its relevance, strategies for promoting healthy classroom dynamics.
b) Analysis of classroom interaction: Flanders, RCS and ETC: Coding, Decoding process of each one of these.
c) Modification of teaching skills through Micro teaching and simulation.

Sessional Work (20 marks)

Microteaching (10 lessons)
Observation of lessons (10 lessons) through Flanders Interaction Analysis System.

OUTLINE FOR INSTRUCTION:

Instruction for the course will be conducted through lectures, seminars and group discussions.

EVALUATION

Students will be evaluated through written examination of 3 hours duration. The theory paper will consist of 8 questions i.e. two questions from each unit. Students will attempt four questions in all selecting one question from each unit. All questions will carry equal marks. Internal assessment of 20 marks is based on performance of house tests, attendance, classroom interaction, snap test, etc. Sessional work for 20 marks will include micro lessons (10) and ten observations through Flanders Interaction Analysis.

BOOKS RECOMMENDED

1. Anastasi, A. and Urbia, S. (1997) Psychological Testing. Delhi: Pearson Education Inc.

2. Bhushan, A., Ahuja, M. (2003): Educational Technology, Theory & Practice, Bawa Publishers, (2nd edition).

3. Briggs, A.R. J. and Sommefeldt, D. (2002): Managing Effective Teaching and Learning, London: Paul Chapman Publishing.

4. Dandekar, W.N. and Makhija, S.M. (2002): Psychological Foundations of Education (3rd ed.), New Delhi: Macmillan.

5. Dandekar, W.N. and Makhija, S.M. (2002): Psychological Foundations of Education, New Delhi: Macmillan India Ltd.

6. Decceco, John P. (1968): The Psychology of Learning and Instruction, Prentice Hall of India Pvt. Ltd., New Delhi.

7. Eggen, Paul, D. (1988): Strategies for Teacher Teaching Contact and Thinking Skills, Prentice Hall, Englewood Cliffs, New Jersey.

8. Hill, Winfred, F. (1968): Learning: A Survey of Psychological Interpretations, London, Methuen.

9. Joyce, B. Calhoun, E. and Hopkins, D. (2002): Models of Learning – Tools for Teaching. Philadelphia: Open University Press.

10. Mehra, V. (2004): Educational Technology, New Delhi, S.S. Publishers.

11. Rao, U. (2008) : Advanced Educational Psychology. Mumbai: Himalaya Publishing House.

12. Skinner, B.F. (1968): Technology of Teaching, New York, McGraw Hill.

13. Tickton, S. (Ed.) (1970): To improve Learning I – II, New York, Baw Kev.

14. Vishnoi, U. (2007): Psychological Foundations of Education. New Delhi: KSK Publishers and Distributors.

15. Woolfolk, A. (2004) Educational Psychology, New Delhi: Pearson Education.

PAPER III:

COURSE CODE: C03-RSA-II

COURSE TITLE: RESEARCH IN EDUCATION AND STATISTICAL ANALYSIS-II

Credits= 5
Total Marks= 100
External= 80
Internal= 20

COURSE OBJECTIVES

After completing the course, going through the relevant references and doing the necessary practice for numerical skill, the students are supposed to:

- Explain the meaning of Collection of data

- Discuss Characteristics and application of different research tools (Test, Questionnaire, interviews, scales, checklists, observations).

- Explain concept, Need and Types of sampling.

- Describe steps, importance and application of experimental, historical and descriptive research.

- Explain steps of writing a report.

- Enumerate assumptions of analysis of variance and apply ANOVA on the given data.

- Explain the difference between partial and multiple correlation.

- Explain concept and characteristics of Qualitative Reaserch.
- Explain the concept and application of Non Parametric statistics: Chi-square test.
- Explain the difference between Biserial, point-biserial, tetrachoric and phi-coefficient of correlation.

COURSE CONTENT

UNIT-I

a) Tools: Characteristics of a good tool: Reliability, Validity, Meaning and methods.
b) Psychological tests, Questionnaire, Rating Scales, Attitudes Scales (Thurstone and Likert's Scale).
c) Techniques: observation and interviews.

UNIT-II

Methods of Research:
a) Historical Research: Meaning, Steps with emphasis on internal and external criticism.
b) Descriptive research: meaning, types with special reference to surveys, case study, longitudinal and cross sectional studies, trend studies and predictive studies, Ex-post facto research.
c) Experimental Research: Meaning, Steps and Threats to internal and external validity.

UNIT-III

a) Significance of statistics (mean only), Significance of difference between means; large and small, independent and correlated samples.
b) ANOVA (one way only).
c) Writing of research report.

UNIT-IV

a) Qualitative research: concept, characteristics, approaches and differences between qualitative and quantitative research.
b) Chi-square list, Wilcoxon signed- rank test. Mann-Whitney test, equality and normality hypotheses.

EVALUATION

The students will be evaluated through external written exam based on theory of 3 hours duration of part I (Units I and II) and part II (Units III and IV) on the portion of:

(i)   Research methods (Weightage 40 marks)
(ii)   Statistical Analysis (Weightage 40 marks)

Eight questions will be set by the external examiner, 4 from part I and 4 from part II. The students will be required to attempt 4 questions in all, selecting at least two from each of the parts I and II. All questions will carry equal marks.

BOOKS RECOMMENDED

1. Ary, Donald and Jacob (1976): Introduction of Statistics, Purpose and Procedures, New York, Holt Rinehart and Winston.
2. Best, J.W. & Kahan J.V. (1995) : Research Education, Prentice Hall of India Pvt. Ltd., New Delhi.

3. Edwards, A.L. (1960) : Experimental Design in Psychological Research, New York, Holts (revised ed.).
4. Ferguson, G.A. and Takane Yoshio (1989) : Statistical Analysis in Psychology and Education.
5. Gakhar, S.C. (2008) : Statistics in Education and Psychology. N.M Publications.
6. Garrett, H.E. (1986) : Statistics in Psychology and Education, Vikils Feffers and Simons Pvt. Ltd.
7. Guilford and Fruchter(1978) : Fundamental Statistics in Psychology and Education.
8. Kaul, Lokesh (1984) : Methodology of Educational Research, Vikas Publishing House Pvt. Ltd., New Delhi.
9. Lindquist, E.F.(1953) : Design and Analysis of Experiments in Education and Psychology, Houghton Mifflin Co., Boston.
10. Siegel Sidney(1965) : Non-Parametric Statistics, McGraw Hill Books Company, New York.
11. Tuckman, B.W.(1972) : Conducting Educational Research, Harcourt Brace, Javanovich.12. 1 2 .
12. Verman, M.(1965) : Introduction to Educational and Psychological Research, Lond. Asia.

Paper – IV:

COURSE CODE: C04-CID-II

COURSE TITLE: PROCESS OF INSTRUCTIONAL DESIGNING AND ICT IN EDUCATION - II

Credits= 5
Total Marks= 100
External= 60
Internal Assessment= 20
Sessional Work=20

COURSE OBJECTIVES:

On the completion of the course work after studying the relevant references and finishing the course assignments, the students are supposed to:

Explain the concept of instruction, system, instructional system and systems approach.

Explain the concept of communication, principles, modes and barriers of communication.
Explain the concept, need and application of ICT in education.
Explain the importance of audio-visual media in education.

Explain the meaning and types of instructional strategies.

Explain Gagne's Model of instructional design.

Explain principles of Instructional Design.

Understand curriculum issues and trends.

Outline features of National Framework of Curriculum – 2005.

COURSE CONTENT

Unit I
a) Concept of instruction, System, instructional system components, systems approach and instructional design.
b) Systems approach to education: goal setting, task analysis, content analysis, context analysis and evaluation strategies.
c) Meaning of instructional strategy, designing instructional strategies such as lecture, team teaching, discussion, panel discussions, seminars and tutorials.

Unit II

a) Principles of instructional design.

    i.   Five categories of learning outcomes, viz. intellectual skills, cognitive strategies, verbal information, attitudes, motor skills.

    ii.   Outcomes of instruction and learning: behavioral objectives, components of operational descriptions of objectives.

    iii.   External conditions of learning and internal capabilities of the learner.

    iv.   Designing instructional sequences.

    v.   Events of instruction.

    vi.   Planning individual lessons.

    vii. Assessment of student performance.

b) Steps of Gagne's Models of Instructional Systems Development

    i.   Analysis and identification of needs

    ii.   Definition of goals and objectives

    iii.   Identification of alternative ways to meet needs.

    iv.   Design of system components.

    v.   Analysis of resources and constraints.

    vi.   Action to remove or modify constraints.

    vii. Selection or development of instructional materials.

    viii. Design of student's assessment procedures.

    ix.   Field testing, formative evaluation and teacher training.

    x.   Adjustments, revisions and further evaluation.

    xi.   Summative evaluation

    xii. Operational installation

Unit III

a) Communication process: concept of communication, principles, modes and barriers of communication, classroom communication (verbal and non-verbal).

b) Information and communication technologies: nature of ICT in teaching and learning and need for ICT devices and application.

c) Application of ICT in class room, professional development and school management.

d) Barriers in application of ICT in education.

Unit IV

a) Audio visual media in education: meaning, importance and various forms.

b) Audio/radio and audio recordings: strengths and limitations, audio conferencing and interactive radio conference.

c) Video/educational television: telecast and video recordings- strengths and limitations, use of T.V and CC TV in instruction and training.

d) Teleconferencing and video conferencing.

Sessional Work

i) Five instructional plans according to Gagne's Model of Instructional design.   20 marks

OUTLINE FOR INSTRUCTION:

Instruction for the course will be conducted through lectures, seminars and group discussions.

EVALUATION

Students will be evaluated through written examination of 3 hours duration. The theory paper will consist of 8 questions i.e. two questions from each unit, out of which students will attempt one question from each unit. All questions will carry equal marks, 20 marks are for internal assessment, which is based on performance of house tests, attendance, seminar, snap test, etc. Sessional work for 20 marks will include four instructional plans according to Gagne's Model (15 marks) and course evaluation of 5 marks.

BOOKS RECOMMENDED

1. Allen, S. (1971): Dynamic Management, Prentice Hall.

2. Bloom, B.S., Hastings, J.T. and Madaus, G.F. (1971): Handbook of Formative and Summative Evaluation Student Learning, New York, McGraw Hill.

3. Bruner, J.S. (1966): Towards a Theory of Instruction, Cambridge, Mass, Harvard University Press.

4. Cropper, G.L. (1974.): Instructional Strategies, Englewood Cliff, N.J. Educational Technology Publications.

5. Davis, I.K. (1971): The Management of Learning, London, McGraw Hill.

6. Forsyth, I., Jolliffe, A. and Stevens, D. (1999): Evaluating a Course. Practical Strategies for Teachers, Lectures and Trainers. London: Kogan Page.

7. Forsyth, I., Jolliffee, A. and Stevens, D. (1999): Planning a Course. Practical Strategies for Teachers, Lectures and Trainers. London: Kogan Page.

8. Gagne, R.M. (1965): The Conditions of Learning, New York, Holt Rinehart and Winston.

9. Gagne, R.M. and Briggs, L.J. (1979): Principles of Instructional Design. New York: Holt, Rinehart and Winston.

10. Mehra, V. (1992): Instructional System Design: An Innovation in Educational Technology, New Delhi, S.S. Publishers.

11. Mehra, V. (2010): A Text Book of Educational Technology, New Delhi, Sanjay Prakashan.

12. Murrit, M.D. (Ed.) (1971): Instructional Design, Englewood Cliffs, N.J., Prentice Hall.

13. National Curriculum Framework (2005): New Delhi: NCERT.

14. Ornstein, A.C. and Hunkins, F.P. (1988): Curriculum: Foundations, Principles and Issues, Prentice Hall International Ltd. London.

15. Popham, J.M. and Baker, E.L. (1970): Systematic Instruction, Prentice Hall, Inc. Englewood Cliffs, New Jersey.

16. Pratt, D. (1980): Curriculum Design and Development, N.Y., Harcourt.

17. Romiszowski, A.J. (1986): Designing Instructional Systems, London: Kogan Page.

PAPER V:
COURSE CODE: C05-DII-II

COURSE TITLE: DESIGNING INDIVIDUALIZED INSTRUCTIONS-II

Credits= 5
Total Marks= 100
External= 60
Internal Assessment= 20
Sessional Work=20

COURSE OBJECTIVES:

On the completion of the course, after going through the relevant references and completing the assignments, the students are supposed to:

Describe concept, characteristic features, advantages and limitations of Mastery Learning Strategies.

Discuss various tasks of a teacher for implementing Mastery Learning Strategies.

Describe various tools of computer technology which can be used in self-instructions.

Explain the meaning and scope of e-learning and e-resources, on-line teaching and m-learning.

Explain the meaning and concept of distance education.

Discuss the evaluation strategies in distance education.

Explain the concept and evaluation strategies in distance education.

COURSE CONTENT

Unit-I

Concept, Historical Development, Essential Features, Types; Bloom, Keller, Eclectic MLS, their similarities & differences.

a)   Variables of Mastery Learning:

          i) Perseverance: Concept, Correlates, Types, Measurement, Enhancing Perseverance.

          ii) Time allowed for Learning.

          iii) Aptitude: Concept, Measurement, Enhancing aptitude.

          iv) Ability to understand Instruction: Concept of Entry behaviour, assumptions about the learners, pre-requisite skills.

          v) Quality Instructions: Concept, Models of Quality Instructions, Measurement of Quality Instruction.

Unit-II

a)   Bloom's and Keller's Mastery Learning Strategies.

b)   Components of Mastery Learning: Tasks of Teachers for each component;

          i) Defining mastery

          ii) Planning for mastery

          iii) Teaching for mastery

          iv) Grading for mastery

c) Implications of Mastery Learning Strategies.

Unit III

a) Computer fundamentals, internet and WWW.
b) Concept of computer based instruction: virtual classrooms, EDUSAT; Characteristics, applicability, advantages & limitations of computer based instruction.
c) E-learning: concept, features, advantages, disadvantages, E-resources.

Unit:-IV

a) Online teaching and learning: concept, advantages, challenges and methodology.
b) M-learning: concept, features, methodology, advantages, disadvantages.
c) Distance education: Concept, different contemporary systems, viz., correspondence, distance and open: Student support services; Evaluation strategies in distance education; Counseling methods in distance education.

Sessional Work:

The students shall prepare mastery learning plans in Bloom's and Keller style (each of 10 marks).

OUTLINE FOR INSTRUCTION

Instruction for the course will be conducted through lectures, seminars and group discussions.

EVALUATION

Students will be evaluated through written examination of 3 hours duration. The theory paper will consist of 8 questions i.e. two questions from each unit, out of which students will attempt one question from each unit. All questions will carry equal marks, 20 marks are for internal assessment, which is based on performance of house tests, attendance, seminar, snap test, etc. Sessional work of 20 marks will be evaluated on the basis of Mastery Learning Plans, 10 marks each for Bloom & Keller Plans.

BOOKS RECOMMENDED

1. Ahuja, M. (2007): Mastery Learning a Practical Approach, Meerut, Vivek Publishers, (2nd Ed.).
2. Bhushan, A. and Ahuja, M. (2003): Educational Technology: Theory and Practice, Patiala , Bawa Publishers, (2nd edition).
3. Block, J.H. and Anderson, L.W. (1974): Mastery Learning in Classroom Instruction: New York, Macmillan.
4. Deva, V. (2003): E-knowledge, New Delhi: Commonwealth Publishers.
5. French, D. (1999): Internet Based Learning: Stylus Publishing LIC.
6. Hitz S.R. & Goldman, R. (2005): Learning Together Online: London, Lawrence Erlbaum Associates, Publishers.
7. Jolliffe, A. & Others (2001): Online Learning, The Handbook : Kogan Page limited.
8. Mager, R.T. (1961): Preparing Objectives for Programmed Instruction, San Francisco, Pearson.
9. Maier, P. and Warren, A. (2000): Integrating Technology in Learning and Teaching. London: Kogan Page.
10. Mayer, R.E. (2001): Multimedia Learning, USA: Cambridge University Press.
11. Rudestam, K.E. (2002): Handbook of Online Learning, New Delhi, Sage Publications.
12. Sethi, A. (2005): Multimedia Education: Theory and Practice : New Delhi, International Scientific Publishing Academy.

PAPER VI:
COURSE CODE: C06-ICU-II

COURSE TITLE: INSTRUMENTS FOR CLASSROOM USE AUDIO-VISUAL AND
COMPUTERS- II

Credits= 2.5
Total Marks= 50
Practical External= 25
Practical Internal=25

COURSE OBJECTIVES:

After completing the course work and the practicals in the application and use of instruments to aid teaching and learning in classroom, the students are supposed to:

Describe theory behind working of each instrument

Identify different components of each instrument.

Draw the activity sequence diagrams for each instrument.

Operate upon each instrument and practice it at the autonomous level.

Diagnose minor failure of each instrument.

Prepare manual for at least one of the above instruments.

COURSE CONTENTS

The students will be introduced to components, activity sequences, diagrams, operation and diagnosing minor failures of the following instruments:

Operating on a video camera, synchronizing it with TV and practicing recording and display of films.

Instructional computers (working in windows) (MS-Word, Excel and Power Point, e-mail, internet).

Outline for instruction

It is a practical course where the students will learn to operate upon above mentioned instruments and develop mastery in their use for a variety of purposes. Each instrument will be introduced verbally followed by practical demonstration of its application by the Incharge teacher of the practicals. All the students will operate repeatedly for the variety of modes of their application until they develop mastery on the practical use of these instruments for recording practical work: They will:

Prepare documents in MS-word, MS-Excel, and MS-PowerPoint presentations in separate files.

Appear for viva-voce examination for evaluating research reports.

EVALUATION

Students will be evaluated practically by the external examiner in a lab situation for the operation of instructional instruments. The practical will be followed by a comprehensive viva-voce test. The competence in use of the appliances will carry 50 marks and the comprehensive viva will carry 50 marks.

BOOKS RECOMMENDED

1. Anderson, R.H. (1976): Selection and Developing Media Instruction, New York,. Van Nostrand Reinhold Company.

2. Heinich, R. Molenda. M.; Russeil J. (1993): Instructional Media and New Technologies of Instruction, Macmillan Publishing, Co., N.Y.

3. Kemp. J. E. (1975): Planning and Producing Audio-Visual Materials, 3rd Ed., N.Y.,Thomas Y. Crowell, Inc.

4. Schramm, W. (1985): Big Media, Little Media, Tools and Technologies for Instruction, California, Sage.

5. Taxali, R.K. (2002): PC Software for Windows 98 Made Simple, New Delhi., Tata McGraw Hill Publishing Ltd.

PAPER VII: DISSERTATION/ RESEARCH REPORT
COURSE CODE: C07-DIS-II

COURSE TITLE: DISSERTATION/ RESEARCH REPORT

Credits= 5 Total
Marks= 100
External= 75
Internal= 25

COURSE OBJECTIVES
After preparing synopsis in Semester I, the students will work on dissertation to

Conduct supervised research
Understand the steps of conducting research
Select/develop tools for collecting data
Select the field of research and collect adequate data relevant to their research proposals
Score and analyse data
Report the results by way of dissertation

Process of Research:

Under the supervision of their guides they will undertake all the steps of research by procuring tools/preparing tools and collecting data. They will score, tabulate and analyse data and prepare a report of results. The students will submit dissertation on specified date.

EVALUATION:
 The dissertation will be jointly evaluated by external examiner and internal examiner (guide) by conducting a viva-voice exam. External examiner will evaluate dissertation out of 75 marks and internal examiner will evaluate out of 25 marks.