

# COURSE OUTLINES FOR POSTGRADUATE PROGRAMMES

## TITLE: EDRS 6001: RESEARCH METHODS IN EDUCATION

Level: POSTGRADUATE

### Introduction:

- (a) This one-semester course is compulsory for ALL postgraduate students. **Students pursuing the M.Phil Degree are also required to do EDRS 6002: Research Methods and Statistics in Education.**
- (b) The EDRS 6001 course (or its equivalent) is a pre-requisite for the EDRS 6002 course.

### The Nature of Educational Research

Normative and interpretive paradigms:

1. (a) positivism and the scientific method
  - (b) anti-positivist schools of thought phenomenology, ethnomethodology, and symbolic interactionism
2. methods and methodology

### Types of Research

Historical Research

Descriptive Research

- \* longitudinal
- \* cross-sectional

Correlational Research

- \* relationship studies
- \* prediction studies Casual-comparative Research

Experimental Research

- \* group experimental designs
- \* single-subject experimental designs

Action Research

### Planning for Educational Research

Identifying and determining the research problem, identifying the variables, clarifying and refining the problem, formulating research questions and hypotheses. Considering ethical issues, legal constraints, human relationships, and political biases. Research design.

### Instrumentation and data collection

Selecting participants/samples.

Selecting, modifying and constructing instruments for data collection. Use of questionnaires, interviews, observation, self-reports, tests, attitude scales.

## **Data analysis**

Descriptive statistics.

Hypothesis testing, statistical inference. Parametric and non-parametric statistics.

Measures of relationship and difference: selecting and using appropriate tests of significance.

Use of simple statistical tests to determine coefficients of reliability. Simple Correlation. An introduction to Analysis of variance.

The use of the computer in the presentation and analysis of data (using Excel or other statistical package).

## **Results, conclusions, interpretations, discussion, recommendations**

Using the data collected to make inferences, draw conclusions, make recommendations, etc. indicating follow-up activities. Respecting the limits of validity and reliability.

## **Writing the research dissertation / thesis**

Format and style

Preliminary pages

Main body

References / Bibliography

Appendices

APA Reference format

Presentation: style, grammar, punctuation, use of English, abbreviations

Layout: spacing, margins, paper orientation (landscape/portrait) for tables, graphs, pagination, etc.

## **ASSESSMENT PROCEDURES**

Assessment of EDRS 6001 will be by both examination and coursework, with weighting as follows: coursework (60%), examination (40%). The coursework will focus strongly on practical, in-the-field tasks requiring students to show understanding and skill in the application of principles to fundamental research work.

## **READINGS (examples)**

Burns, Robert E (2000) **Introduction to Research Methods**. Sage publications Ltd.

McMillan, James H. & Schumacher, Sally (2000). **Research in Education. 5<sup>th</sup> Edition**. Pearson.

**TITLE: RESEARCH METHODS AND STATISTICS IN  
EDUCATION**

**CODE EDRS 6002**

**CREDITS 5**

**PREREQUISITES: EDRS 6001**

**INTRODUCTION**

EDRS 6002 is an optional one-semester course for M.Ed students, but a *compulsory* course for students registered for an M.Phil.

It is designed to complement and build upon the material presented in EDRS 6001. The emphasis is on quantitative methodology and the course will focus upon intermediate-to-advanced experimental and correlational research methods, data analysis, and interpretation.

**OBJECTIVES**

Upon successful completion of this course, students will be:

- (i) able to design and conduct a piece of experimental research;
- (ii) able to design and conduct a piece of correlational research;
- (iii) able to conduct and interpret the results of univariate, bivariate, and multivariate statistical analyses;
- (iv) conversant with the SPSS for Windows data analysis package;
- (v) able to write a research report in American Psychological Association (APA) format.

**CONTENT**

1. Correlational research designs;
2. Experimental research designs;
3. Multivariate research designs;
4. Measures of relationship;
5. Measures of difference;

4

6. Simple and multiple regression;
7. Multivariate analyses;
8. Use of the computer in the analysis and presentation of data;
9. APA style conventions.

## **TEACHING METHODS**

Teaching will be via seminars and workshops (39 hours) and independent study.

## **ASSESSMENT**

Assessment will be by coursework (40%) and examination (60%).

The coursework consists of a piece of independent educational research using one of the research designs covered in the course. The research should be reported in an APA format report with a maximum word length of 5,000 words.

The examination consists of a number of short answer questions covering all aspects of the course.

## **READING LIST**

### **Essential**

Howell, D.C. (1999). **Fundamental Statistics for the Behavioural Sciences** (4<sup>th</sup> ed.). Boston: PWS.

Kinnear, P.A. & Gray, C. D. **SPSS for Windows made Simple, Release 10**. Andover Psychology Press, Taylor & Francis.

### **Supplementary**

American Psychological Association. **Publication Manual of the American Psychological Association** (5<sup>th</sup> ed.). Washington, DC: Author.

### **Web References**

#### **David Howell's home page**

<http://www.uvm.edu/~dhowell/StatPages/StatHomePage.html>

## **Tutorials to accompany Fundamental Statistics for the Behavioural Sciences**

<http://psych.utoronto.ca/courses/cl/j2acktoc.htm>

## **Data sets to accompany SPSS for Windows made Simple**

<http://www.psypress.co.uk/kinneargray/datasets.html>

## **APA style guide home page**

<http://www.gpastyle.org/eleceref.html>

## **Wadsworth's publishing company research methods workshops**

<http://psychology/wadsworth.com/workshops/workshops.html>

# **EDEA 6101: THEORIES OF MANAGEMENT AND ORGANISATION**

*This course has an applied approach. It seeks to help participants understand the concepts and theories of management and organisation and apply them to the study and practice of educational management. Participants will develop a conceptual and methodological framework which they can apply to educational, management, and policy issues as practitioners or policy-makers.*

## **OBJECTIVES**

Participants will:

- examine and evaluate a range of organisation and management theories and concepts
- relate the study of organisational behaviour to that of management
- discuss the variables which impact on organisational culture
- examine the organisational challenges which are currently being experienced by regional educational institutions, and design appropriate frameworks for handling related issues and problems
- analyse the various ways in which individual and group behaviour impact on the efficient and effective management and administration of regional educational institutions
- evaluate the impact which globalisation and the technological revolution is likely to have on educational organisations in the region.

## CONTENT

The Nature of Organisational Behaviour

Theory and Approaches to Organisation and Management

Organisational Goals and Objectives

Organisational Structures

Leadership in Educational Organisations

Management as an Integrating Process

Organisational Processes

The Ethical and Social Context of Management

## TEACHING STRATEGIES

Lectures, lecture/discussions, student presentations, collaborative problem solving of selected case studies.

## ASSESSMENT

Course Work:	<b>40%</b>
Individual Seminar Presentation & Small Group Presentation	
Written Examination - 3 Hours	<b>60%</b>

## TEXTS

Mullins, L.J. (2002). **Management and Organisational Behaviour** 3<sup>rd</sup> Edition. Pitmans

Gordon, J. (1999) **Organisational Behaviour: A Diagnostic Approach**. Prentice Hall.

Owens, R. (2000) **Organisational Behaviour in Education: Instructional Leadership and School Reform**. Allyn & Bacon.

Kydd, L., Crawford, M. & Riches, C. (1999) **Professional Development for Educational Management**. Open University Press.

**Additional Reading Lists will be supplied.**

# **EDEA 6102: FUNDAMENTALS OF EDUCATIONAL ADMINISTRATION AND MANAGEMENT**

## **RATIONALE**

It is increasingly being recognised that good management in the education service is a vital ingredient if the teaching-learning process is to succeed optimally. The intention of this programme is to sensitize participants to the essentials of effective management at the system as well as at the institutional level and to enhance their contribution to the achievement of educational goals. In addition to academic and intellectual stimulation, it is designed to promote problem-solving skills through practice-oriented experiences. The course will comprise an examination and evaluation of theoretical and research issues in educational management as well as practical and policy issues in the administration of education.

## **OBJECTIVES**

The major objective of the course is to produce a skilled and sensitive administrator or future administrator by:

- (i) providing insights and understanding into the development of educational administration and the theories and concepts that underpin them.
- (ii) examining critically the tasks, functions and processes of educational administration.
- (iii) careful consideration of the ethical/moral, legal and professional bases of educational administration and management.
- (iv) providing opportunities for practice and reflection via case studies (preparation and analysis), role-play, simulation activities and exposure to good practice via resource materials and focused visits.

## **CONTENT**

1. Overview of Educational Administration and Management
2. Theories and Concepts in Educational Administration
3. The Personnel Function in Educational Administration
4. Curriculum and Instructional Management
5. Community/Parent-School Relationships
6. Legal Framework of Education and Administration

7. Issues in Educational Planning and Budgeting and Finance
8. UNESCO/ILO Status of Teachers: Teachers and Their Unions.

## **DELIVERY STRATEGIES**

Lecture/discussions, group-activities, role-play, simulation, case studies, visits to educational institutions, student presentations etc.

## **ASSESSMENT**

Coursework (Portfolios/case studies preparation/reflective writing) [40%]  
 Examination - 3 hours [60%]

## **READING LIST**

Castetter, W.B. (1999) **Human resource function in educational administration. The personnel function in educational administration.** Prentice Hall.

Capper, Colleen, A. (ed.) (1993). **Educational administration in a pluralistic society.** State University of New York Press.

Donmoyer, Imber, & Scheurich, (1995). **The knowledge base in educational administration - Multiple Perspectives.** The State University of New York Press, 1995.

Evers, C.W. & Lakomski, J. (1991). **Knowing Educational Administration - Contemporary methodological controversies in educational administration research.** Oxford, Pergamon.

Lawrence, C.E. & Vachon, M. (1995). **How to handle staff misconduct.** Corwin Press, CA.

Murphy, J. & Louis, K. eds. (1999). **Handbook of research on educational administration: A project of the American Educational Research Association.** Jossey Bass.

Lunenburg, R. & Ornstein, A. (1999). **Educational administration: concepts and practices.** Wadsworth Publishing.

Castetter, W. & Young, I. (1999). **Human resource function in educational administration.** Prentice Hall.

Smith, R. (2001). **Human resources administration: A school-based perspective.** Eye on education.

- Daresh, J. & Playko M. (1997). **Beginning the principalship: practical guide for new school leaders.** Corwin.
- Sergiovanni, T. (1995). **The principalship: A reflective practice perspective.** Allyn & Bacon.
- Starratt, R. (1995). **Leaders with vision: The quest for school renewal.** Corwin.
- Owens, R. (2001). **Organizational behaviour in education. Instructional leadership and school reform.** Allyn & Bacon.
- Beck, L.G., Murphy, J., Mertz, N.T., Starrat, R.J., Shapino, J.P. Stefkovich, J.A., Duke, D., Grogan, M. & O'Keefe, J. (1997). **Ethics in educational leadership programs: emerging models.** Columbia MO: The University Council for Educational Administration.

## **EDEA 6103: EFFECTIVE LEADERSHIP IN EDUCATION**

*The major goal of this course is to tease out and analyse relevant practice and approaches, adapt them as necessary to the local setting, and provide the requisite understanding and practice that will make participants incorporate them in their repertoire.*

### **OBJECTIVES**

Participants will

- explore the varying dimensions of leadership as presented in the literature and from local practitioners and evaluate the extent to which these dimensions are applicable and relevant to their own professional development and functioning.
- apply selected leadership strategies, behaviours and theories in leading a school team to develop a school improvement plan.
- engage in problem solving activities related to leadership problems of professional significance, identify and evaluate strategies for addressing these problems.
- engage in collaborative inquiry with cohorts in the programme and with peers in their schools to expand their repertoire of leadership skills and content as well as group process competencies.
- assess, on the basis of on-going discussion, reflection and functioning, their own leadership strengths and needs, identify, and wherever possible, implement strategies for improvement.

## **CONTENT**

The course will be modularised and will be based on relevant research articles, texts and audio visual materials. Participants will be provided with opportunities to be reflective and to be involved in problem-solving and other practical activities for the development of relevant skills and competencies. Literature searches and reviews will be done to keep the course up-to-date and available non-print material will be used. More particularly the course will address the following areas:

School Improvement and Effectiveness in a Rapidly Changing Environment

Conceptions of Leadership in Educational Settings

Educational Leaders as Reflective Practitioners

Dimensions of Leadership

Visioning and Transformative Leadership In Educational Organisations

Moral and Ethical Dimensions of Educational Leadership

Enhancing Culture in Educational Organisations

Improving Instruction and Curriculum Reform - The Role of the School Leader

Leadership and Empowerment

Leadership and Change Management

Developing the Learning Organisation

## **DELIVERY STRATEGIES**

Student presentations, discussion, films, videos, seminars, group problem solving of selected case studies, scenarios and guest-lectures to illustrate good practice.

## **ASSESSMENT**

Coursework: (40%)

1. A major project in which the students will be required to put forward a strategy for school improvement, support it with relevant literature, plan its implementation, anticipating resources and likely costs, and consequences or likely outcomes, etc.

Final Examination: 60%

## TEXTS

Leithwood, K., Begley, P. & Cousins, J.G. (1992). **Developing Expert Leadership For Future Schools**. Falmer Press, London.

Du Four, R. & Eaker, R. (1992). **Creating The New American School**. National Education Sensus, Bloomington, Indiana.

Sarason, S. (1994). **The Predictable Future of Educational Reform**. Jossey Bass.

Johnson (1994). **Research Methods in Educational Management**. Pitmans.

Starratt, R. (1995). **Leaders With Vision: The Quest for School Renewal**. Corwin.

Fullan, M. (2000). **The Jossey Bass Reader On Educational Leadership**.

Leithwood, K., Jantzi, D. & Steinbach, R. (1999). **Changing Leadership For Changing Times**. Open University Press.

Sergiovanni, T. (1999). **The Lifeworld of Leadership**. Jossey Bass.

Additional Reading Lists will be supplied.

## EDEA 6104: SCHOOL SUPERVISION - POLICY AND PRACTICE

### INTRODUCTION

Many things are expected of school supervisors and Education Officers in Caribbean educational systems. They are seen as inspectors, instructional leaders, staff developers, curriculum experts, teachers and mediators, among other things. They are also perceived in different ways. Some educators look forward to their visits and advice, others appear to be unsure about their role. If school supervisors are to impact meaningfully on schools, and on education in general, they must demonstrate the technical and human relations skills required for effective functioning. The purpose of this course therefore, is to assist school supervisors in enhancing their supervisory skills. It seeks to provide knowledge and understanding of aspects of education that are fundamental to supervisory functions. It will also provide knowledge, skills and competencies directly pertinent to supervisory processes and activities.

### OBJECTIVES

Participants will:

- explore various concepts and supervision as presented in the literature, develop their own and refine this through the process of on-going reflection, reading and discussion.

- lead seminar presentations which examine and explore various supervision models, analyse the various features of these models, as well as related theoretical and empirical issues and evaluate the extent to which these are applicable to Caribbean educational institutions.
- engage in problem solving activities re various case studies in order to explore strategies which may be employed in addressing persistent supervisory issues/problems.
- engage in role play and related practical activities in order to enhance their skills in selected supervisory processes and models and receive feedback on their performance.
- conduct short, practical school-based activities in their schools in order to relate theory to practice in critical areas such as teacher evaluation, teacher development, and institutional evaluation.

## **CONTENT**

### (1) Foundations of the Supervisory Process

- a. Policy and Practice in School Supervision - Creating and Realising a Vision for Education and Schools
- b. Achieving and Maintaining Excellence in Schools - Lessons from Research on Effective Schools and other Sources
- c. Ethics and Values in Education
- d. Communication and Interpersonal Skills - Working and Relating with Others
- e. Planning and Managing Change
- f. Curriculum and Instructional Improvement
- g. Finance and Budgeting Issues

### (2) Supervision and Teaching

- a. Foundations of Supervisory Practice
- b. Instructional Dimensions of Supervision
- c. Models and Mechanics of Supervision
- d. Supervision for Accountability, Development and Empowerment
- e. Staff Development and Training

- (3) Evaluation and Appraisal
  - (a) Models of and Approaches to Teacher Evaluation
  - (b) Programme Evaluation
  - (c) Institutional Evaluation

## **DELIVERY STRATEGIES**

Lecture/discussions, seminars, student presentations, case studies and in-basket exercises. Students will conduct short practical activities in schools.

## **EVALUATION**

Coursework [40%]

Written Examination - 3 hours [60%]

## **TEXTS:**

Acheson, K. and Gall, M. **Techniques in the Clinical Supervision of Teachers: Pre-Service and In-Service Applications** (3rd Edition), Longman, 1994.

Glanz, J. (1996). **Educational supervision: Perspectives, issues and controversies.**

Oliva, P. & Pawlas, G. (2000). **Supervision for today's school (6<sup>th</sup> edition).** John Wiley & Sons.

Blase, J. & Blase, J. (1998). **Handbook of instructional leadership: How really good principals promote teaching and learning.** Corwin.

Wragg, E. (1999). **Introduction to classroom observation. 2<sup>nd</sup> ed.** Routledge.

Theis-Sprinthall, L. & Reiman, A. (1997). **Mentoring and supervision for teacher development.** Addison-Wesley.

Montgomery, D. (1999). **Positive teacher appraisal through classroom observation.** David Fulton.

Sergiovanni, T. & Starrat, R. (1997). **Supervision: A redefinition.**

## **EDME 6201: INTRODUCTION TO EDUCATIONAL MEASUREMENT**

### **OBJECTIVES**

To help students:

1. demonstrate an understanding of the principles and techniques of psychometrics as they relate to human attitude, ability and attainment.
2. discuss the principles associated with criterion-referenced and norm-referenced assessment.
3. develop the ability to devise formative and summative modes of assessment for determining scholastic achievement;
4. construct, analyse and interpret results of objective tests, essay tests, diagnostic tests, etc.;
5. apply the principles of reliability and validity to classroom tests and examinations;
6. interpret tests using simple statistical concepts and techniques;
7. prepare technical evaluation reports on items and tests, using item analysis and other statistical techniques.

### **COURSE OUTLINE**

- Concepts of measurement: testing, evaluation, assessment
- Types of measurement: nominal, ordinal, interval, ratio
- Types of test: objective, mastery, power, aptitude, achievement, diagnostic
- Formative vs Summative evaluation
- Blooms Taxonomy in cognitive domain; advantages and disadvantages
- Other hierarchies of learning relevant to assessment modes
- Characteristics of good tests
- Measurement of human aptitude, intelligence and achievement
- Criterion vs Norm referenced testing
- Reliability and validity

- Test construction: selected response items e.g. objective tests, matching, multiple completion, reasoning and assertion, interpretive exercises  
Constructed-response: short answers, essays, performance tasks
- Item analysis techniques
- Computation, application and use of K-R 20, KR 21, Cronbach alpha, biserial, point biserial, correlation coefficients.
- Scoring tests - holistic vs analytic scoring
- Test Interpretation standard scores, z scores, percentiles t-scores and other test interpretation issues.
- Grading principles: Raw scores and transformed scores; grades, procedures for determining grades.

## EVALUATION:

Coursework	[40%]
Examination	[60%]

## REQUIRED READINGS

Sax, Gilbert with Newton, James (1997). **Principles of Educational and Psychological Measurement and Evaluation**. Fourth edition, Belmont, CA: Wadsworth Publishing Co., and International Thompson Co.

Chatterji, Madhabi (2003). **Designing and using Tools for Educational Assessment**. Boston, MA: Allyn and Bacon.

Nitko, Anthony (2001). **Educational Assessment of Students. Third edition**. Englewood Cliffs, N.J: Prentice Hall.

Anderson , L & Krathwohl, D (2001) A Taxonomy for Learning, Teaching and Assessment. Pub by David Mac Kay co, New York for Addison Wesley Longman (**soft cover version: ISMN 0-8013-1903-X**).

## Supplementary Readings:

Lyman, Howard (1998) Test scores and What They Mean (6<sup>th</sup> edition). Englewood Cliffs, NJ: Prentice Hall.

Worthen, B.R, White, K.R , Fan, X and Sudweeks R.R. (1999). Measurement and Assessment in Schools. Second edition. Reading, MA: Addison Wesley Longman.

Payne, David (2003) Applied Educational Assessment, second edition. Belmont, CA: Wadsworth Group, a Thompson Learning Co.

Popham, James (2003) Classroom Assessment. What teachers Need to Know Needham heights, MA: Allyn & Bacon.

## **EDME 6202: PERFORMANCE ASSESSMENT STRATEGIES**

### **OBJECTIVES**

To help students:

1. recognise the importance of accountability in education and the need for systematic meaningful assessment of teaching/learning;
2. develop and use a variety of strategies for determining the quality of instructional programmes;
3. apply the psychometric principles to various types of performance assessment;
4. construct and score suitable tasks for School Based Assessment for selected CXC subjects in the secondary schools;
5. evaluate the reliability and validity of various types of assessment strategies.

### **COURSE OUTLINE**

- Assessment and accountability
- Link between instruction and assessment - measurement driven instruction vs. instruction-driven assessment. Authentic assessment.
- Evaluation as feedback
- Continuous assessment vs. terminal assessment
- Performance assessment strategies (alternative assessment strategies) authentic assessment, student self assessment, peer assessment, process assessment, portfolio assessment, individualised assessment
- Psychometric issues of performance assessment
- Profiles and profile reporting

- Scoring rubrics - holistic, analytic and combination methods applied to performance assessment measures
- Observation techniques and rating scales
- Meaning and use of marks and grades. Comparability issues, moderation, issues of equity and opportunity to learn
- Assessment of teaching and teacher performance appraisal schemes

## EVALUATION

Coursework	[40%]
Examination	[60%]

## REQUIRED READING

Huba, Mary and Freed, Jann (2000) **Learner Centred Assessment on College Campus** Needham Heights, MA; Allyn & Bacon.

Shaklee, B, Barbara N, Ambrose, R and Hansford, S. (1998) **Designing and Using Portfolios**. Needham heights, MA: Allyn and Bacon.

Nitko, Anthony (2004). **Educational Assessment of Students. 4th edition**. Prentice Hall.

Anderson, Lorin & Krathwohl, David (2001). **A Taxonomy for Learning, Teaching and Assessment**. Pub by David Mckay Company Inc, New York for Addison Wesley Longman.(Soft cover version ISMN 0-8013-1903-X).

## Supplementary Readings

Mc Millan, James (2003) **Classroom Assessment: Principles and Practice for Effective Instruction**. Third edition, Needham Heights, MA: Allyn & Bacon.

Harlen, Wayne (Ed) (1994). **Enhancing Quality in Assessment**. Paul Chapman Publishing.

Torrance Harry (1995) **Evaluating Authentic Assessment**- Open University Press.

Wolfe, Allison (1995). **Competency Based Assessment**. Buckingham: Open University Press.

## **EDME 6203: APPLIED PSYCHOMETRIC METHODS**

This is an advanced course in measurement and testing. It is useful for students majoring in psychology, measurement and evaluation.

### **General Objectives**

To help students to:

1. apply psychometric methods to solve selected problems in test development
2. apply the theory, principles and procedures of classical test theory to test construction, scoring and grading of examinations.
3. use item analysis techniques to improve test construction.
4. apply item response theory to practical test development problems.
5. design validation studies and apply validation procedures to evaluate test scores.
6. use data reduction techniques to (principal component analysis and factor analysis) to study the dimensionality of test scores.

## **CONTENT**

### **Test Score Interpretation Problems**

Standard setting methods and procedures;  
 Overview of research finding on standard setting;  
 Norms and standard scores;  
 Test Equating methods and procedures;  
*Equity issues in testing, bias in testing\**

### **Classical Test theory and reliability**

Assumptions and principles of Classical Test Theory; reliability theory;  
 Procedures for estimating reliability in norm referenced measurement,  
 Procedures for estimating reliability in criterion referenced measurement,  
 Selected problems in reliability: Factors affecting reliability of test scores.

### **Validity**

Traditional versus modern conceptualisations of validity,  
 Procedures for conducting validity studies,  
 Construct validation procedures: multi-trait multi-method analysis;  
 Principal component analysis & factor analysis;  
 Using software (SPSS or Minitab) to do factor analysis.

## **Item analysis and Item Response Theory;**

Correlation procedures for item analysis (e.g. biserial & point biserial correlations),  
 Fundamentals of Item Response Theory (IRT);  
 Assumptions of IRT, advantages of IRT over classical test theory;  
 Major features of one, two and three parameter models;  
 Item characteristic curve (ICC), item and test information functions,  
 Applications of IRT to selected test development problems.

*\* Optional topic, if time permits.*

## **EVALUATION:**

Course work 40% (See Assessment Sheet for details)

Examination 60% (See Assessment Sheet for details)

## **REQUIRED READINGS**

Crocker, Linda & Algina, James (1986) **Introduction to Classical and Modern Test Theory**. Belmont, CA: Wadsworth Group/ Thompson Learning.

Nunnally, Jum & Brenstein, Ira (1994) **Psychometric Theory**. (Third Edition). New York: McGraw-Hill, Inc

Dunteman , George H. (1989). **Principal Component Analysis**. Sage University Paper #69. Newbury Park, CA: Sage Publications

Hambleton, R., Swaminathan, H and Rogers, J (1991). **Fundamentals of Item Response Theory**. MMSS Vol 3. Newbury Park, CA: Sage

## **SUPPLEMENTARY READINGS**

Livingston, S.A and Zieky, M.J (1989). **Passing Scores**. Princeton, N.J: Education Testing Service

Lyman, Howard B. **Test Scores and What They Mean** (6th edition). Needham Heights, MA: Allyn & Bacon.

Kim, J and Mueller, C (1978). **Introduction to Factor Analysis**. Sage University Paper #13. Newbury Park, CA: Sage Publications

Traub, R. (1994). **Reliability for the Social Sciences**. MMSS Vol. 3, Newbury Park, CA: Sage Publications.

Selected Journal Articles will be provided as the need arises.

## **EDME 6204: INTRODUCTORY COURSE IN EVALUATION METHODOLOGY AND THEORY**

### **OBJECTIVES**

1. To develop an understanding of the role of educational evaluation;
2. To develop skills in designing and analysing evaluation programmes;
3. To develop skills in constructing and administering needs assessment studies;
4. To develop an understanding of the complexity of issues involved in carrying out an evaluation study;
5. To apply evaluation theory and methodology to local problems in education and social programmes.

### **COURSE OUTLINE**

- Concept of evaluation vis a vis measurement, research, testing, assessment - evaluation as 'determining the worth of' vis a vis 'stating the facts/findings'
- Formative vs. summative evaluation
- Evaluation models and approaches e.g.
- Process vs. product evaluation
- Objectives - oriented approach
- Management - oriented approach
- Consumer - oriented approach
- Expertise - oriented approach
- Adversary - oriented approach
- Naturalistic approaches
- Participant observation approach
- Quantitative vs. qualitative issues in evaluation
- Planning a needs assessment

- Planning, collecting and analysing data for evaluation study
- Writing evaluation report
- Political and ethical issues in educational evaluation.

## **EVALUATION**

Coursework Only [100%]

## **READINGS**

**Worthen, B. R. and Sanders, J. R.** (1987) *Educational Evaluation: Alternative Approaches and Practical Guidelines*; Longman, N.Y.

**Guba, E. G. and Lincoln, Y. S.** (1981) *Effective Evaluation*; San Francisco: Jossey - Bass Pub.

**Popham, James** (1993). **Educational Evaluation**, (third edition). Needham Heights, M.A.: Allyn & Bacon.

**Stefflebean, D. L., McCormick, C. H., Brinkerhoff, R. W., and Nelson C. O.** (1985) *Conducting Educational Needs Assessment*; Boston: Kluwer Nijhoff Pub.

## **EDPS 6301: PERSONALITY THEORY AND ASSESSMENT**

### **OBJECTIVES:**

1. Develop an understanding of various theories underpinning the study of personality.
2. Analyse factors which influence personality development within the Caribbean context.
3. Develop an understanding of the techniques used in the measurement of personality.

### **CONTENT:**

#### *Personality Theories*

- The Psychoanalytical Approach
- The Psychometric Approach
- Social Learning Theory

***Motivation Theories***

- Humanistic Theory
- Attribution Theory

***Identity and the Concept of Self***

- Development of personal identity
- Dimensions of the self-concept
- Development of gender roles

***Personality Assessment***

- Personality assessment techniques
- Cultures, sub-cultures and personality in the context of the Caribbean.

**ASSESSMENT**

Assessment will comprise the following:-

Coursework -

- One (1) Assignment (40%)
- Written Examination - Three Hours (60%)

**TEXT BOOKS:**

Carver, C. S. & Scheier, M. F. (1966) **Perspectives on Personality**. Boston: Allyn and Bacon.

Hergenhahn, B. R. (1994) **An Introduction to Theories of Personality**. New Jersey: Prentice Hall.

Pervin, L. A. & John, P. O. (1997) **Personality: Theory and Research**. New York: John Wiley and Sons.

## **EDPS 6302: SOCIAL PSYCHOLOGY OF EDUCATION**

### **OBJECTIVES**

1. Identify the likely influences of individuals and institutions on the socialisation of the Caribbean child.
2. Understand the dynamics of stress and the various stressors of school teachers and pupils in Caribbean teaching/learning environment.
3. Develop an understanding of attitude formation and attitude change.

### **CONTENT:**

- Social Cognition: How we think about the social world.
- Social Perception: How we come to understand other people.
- Self Understanding: How do we know ourselves?
- Conformity: Influencing Behaviour.
- Attitudes and Changes.
- Stress.
- Group Processes.
- Pro-social Behaviour: Why do people help?

### **ASSESSMENT:**

Assessment will comprise the following:

Course work - One (1) Assignment	(40%)
Written Examination - Three Hours	(60%)

### **TEXT BOOKS:**

Baron, R. A. & Bryne, D. (1997) **Social Psychology**. New York : Allyn and Bacon.

Aronson, E., Wilson, T. & Akert, R. (1994) **Social Psychology : The Heart and the Mind**. New York : Harper Collins College Publishers.

Smith, E. R. & Mackie, D. M. (1995) **Social Psychology**. New York : Worth Publishers.

## **EDPS 6303: COGNITION AND LEARNING**

### **OBJECTIVES:**

1. Develop an understanding of the various aspects of the cognitive process.
2. Formulate principles on how children create meaning out of the stimuli they encounter.
3. Develop an understanding of the factors affecting learning.

### **CONTENT:**

- Cognitive Development
- Beliefs and Cognition
  - (i) beliefs about self
  - (ii) beliefs about intelligence and knowledge
- Cognition in the Classroom
- Problem-solving and Critical Thinking
- Building Knowledge and Reflective Thought
- Theories of Learning
- Decision-making and Reasoning.

### **ASSESSMENT:**

Assessment will comprise of the following:-

Coursework -

One (1) Assignment (40%)

Written Examination - Three Hours (60%)

### **TEXT BOOKS:**

Bruning, R.H., Schraw, G.J. & Ronning, R.R. (1995) **Cognitive Psychology and Instruction**. New Jersey : Prentice Hall.

Hergenhahn, B.R., & Olson, M.H. (1993) **An Introduction to Theories of Learning**. New Jersey : Prentice Hall.

Sternberg, R.J. (1996) **Cognitive Psychology**. New York: Harcourt Brace College Publishers.

## **EDPS 6304: HUMAN GROWTH AND DEVELOPMENT**

### **OBJECTIVES:**

1. Develop an understanding of the various theories of human growth and development.
2. Analyze factors which influence growth and development within the Caribbean context
3. Construct and use developmental assessment instruments.

### **CONTENT:**

- Contextual Influences on Development
- Hereditary Influences on Development
- Theories of Human Growth and Development
- Sex Differences and Sex-role Development
- Developmental Assessment
- Design and Evaluation of Developmental Interventions.

### **ASSESSMENT**

Assessment will comprise the following:-

- |                                   |       |
|-----------------------------------|-------|
| Course work - One (1) Assignment  | (40%) |
| Written Examination - Three Hours | (60%) |

### **TEXT BOOKS:**

Craig, G.J. (1996) **Human Development**. New Jersey : Prentice Hall.

Fisher, C.B. & Lerner, R.M. (1994) **Applied Developmental Psychology**. New York : McGraw Hill.

Seifert, K.L. & Hoffnung, R.J. (1997) **Child and Adolescent Development**. New York: Houghton Mifflin Company.

## **EDLS 6401: FOUNDATIONS OF LITERACY DEVELOPMENT AND INSTRUCTION**

### **OBJECTIVES**

1. To develop a sound grasp of key theoretical and empirical issues in the study of literacy acquisition and development.
2. To apply the insights/understanding gained from the above to the analysis and appraisal of practices in reading instruction with particular reference to the Caribbean.
3. To build a practitioner friendly research base on issues and problems in the field of reading instruction which is relevant to the contemporary needs of the Caribbean educational systems.

### **CONTENT**

1. Language processes and literacy acquisition.
2. Interdisciplinary perspectives on understanding literacy acquisition and development.
3. Theoretical models of reading.
4. Literacy acquisition and development.
5. Curriculum planning in literacy instruction.
6. Evaluation of the main instructional methodologies in literacy instruction.

### **TEACHING METHODS**

1. Lecture/discussion
2. Group presentation on selected theoretical issues.
3. Staggered discussions or written tasks on using the theory to analyse practical concerns.

### **ASSESSMENT**

Coursework [2 typed assignments]	[40%]
Examination	[60%]

### **CORE TEXT**

Ruddell and Ruddell (1994). Theoretical models and processes of reading. Fourth Edition. Newark, DE: International Reading Association.

## **EDLS 6402:                   DIAGNOSIS AND REMEDIATION OF   READING DIFFICULTIES**

### **OBJECTIVES**

To develop a sound theoretical understanding and practical skills related to the diagnosis and remediation of reading difficulties.

### **CONTENT**

1. Conceptual overview of the course concerns: models of the reading process and concepts of remediation, the instructional-assessment process, authentic assessment, diagnostic teaching.
2. Various approaches to assessment in literacy instruction.
3. Evaluating the learner and the learning.
4. Evaluating the reading context.
5. Decision making in diagnosis and remediation using interactive model of the reading process.
6. Instructional issues and problems: Theory, research and practice.

### **TEACHING METHODS**

1. Lecture/discussions, student-led presentations, reflective ‘papers’, critiques of various models of diagnosis in reading, critical analysis of current research on the issues raised in the readings.
2. Field experiences to build clear notions of the realities of literacy instruction in the Caribbean context, practical tasks e.g. constructing/using diagnostic instruments, developing skills in case study methodologies, visits, document/text analyses, critique of commercial and student developed videos and audiotapes.
3. Student-led seminars: individual/groups

### **ASSESSMENT**

\*Coursework     [40%]

Examination     [60%]

**\*Note**

Coursework may comprise or include practical tasks e.g. portfolios, field reports related to key theoretical and practical concerns of the course, development/critique of various assessment instruments.

**CORE TEXT:**

Lipson, Marjorie Y. and Wixson, Karen K. (1991). **Assessment and instruction of reading disability: An interactive approach**. N.Y.: Harper Collins.

**EDLS 6403: RESEARCH SEMINAR IN  
LITERACY STUDIES**

**OBJECTIVES**

1. To provide scope for participants to develop a sound theoretical grasp of current issues in literacy research and instruction, and to use that understanding to develop practicable frameworks for tackling problems with which they are faced as practitioners.
2. To provide a context for the development of skills in the critical analysis of literacy research.

**TOPICS**

1. Research methodologies in 'reading'.
2. Stages of reading development.
3. Cooperative learning methodologies in 'reading' including reciprocal teaching, peer teaching, collaborative learning.
4. Comprehensive instruction.
5. Parent involvement.
6. Adult literacy.

Note: Other topics current in the 'reading' literature may be substituted.

**TEACHING METHODS**

1. Lecture/discussions, short reflective 'papers' focussing on critical analysis of current research on literacy.
2. Student-led seminars: individual/groups to develop skills in critical analysis of the 'literacy' literature and presenting and defending one's perspective.

## CORE SOURCES

Reading Research Quarterly

Journal of Reading Behaviour

Handbook of Reading Research, Vols. 1, 2

Handbook of Research in the English Language Arts

Handbook of Research in Teaching

Handbook of Research in Teacher Education

Research in the Teaching of English

## ASSESSMENT

Coursework Only:	100%
Action Research	[50%]
Portfolio	[20%]
Presentation	[30%]

## EDSS 6601: THE THEORETICAL AND CONCEPTUAL FRAMEWORK OF THE FIELD OF SOCIAL STUDIES

*This course is designed to offer an in-depth examination of the field of Social Studies, with particular focus on:*

- *the theoretical/ conceptual underpinnings of the subject.*
- *the historical background, which is critical to understanding its nature and its major goals.*
- *recent developments in the field of Social Studies.*
- *the role of Social Studies in nation-building and the development of a Caribbean consciousness.*

## OBJECTIVES

- To analyse the conceptual underpinnings, the nature and the major goals of Social Studies.

- To analyse current approaches to the teaching and learning of the subject-area.
- To critically explore some of the contemporary issues in the teaching of Social Studies.
- To review the development of the subject in the Caribbean.
- To critically examine the role of Social Studies in education in the Caribbean.

## **COURSE OUTLINE**

### **1. Theories of Social Studies**

- Origin/Foundations
- The epistemological debate
- Methodological consideration

### **2. Influence of Dewey, Michener, Taba and others.**

### **3. Major goals of Social Studies**

- Social Participation
- Citizenship education

### **4. The Social Studies Curriculum**

- Nature and content
- Patterns
- Conceptual themes and standards
- Curriculum issues

### **5. Development of Social Studies in the Caribbean**

- As Civics/General knowledge
- Formal adoption into the school curriculum (1960's)
- Social Studies in the secondary school
- Current status
- Role of Social Studies in Caribbean Schools (status, purpose, prospects)

## **TEACHING METHODOLOGY**

Discussion, lectures/seminars, and presentations by students, individually and in small groups.

## ASSESSMENT

- One research paper of about 5000 words in length (40%).
- A written examination (60%)

## RECOMMENDED TEXTS

Engle, S. & Ochoa, A. (1988) **Education for democratic citizenship**. New York: Teachers' College Press.

Mehlinger, H. & Davis, O. (1981) **The Social Studies**. Chicago: University of Chicago Press.

Ross, E.W. (1997) **The Social Studies curriculum: purposes, problems and possibilities**. Albany, NY: SUNY Press.

## EDSS 6602: RESEARCH AND PRACTICE IN SOCIAL STUDIES EDUCATION

*This course is intended to address the concerns of teacher-preparation in Social Studies as it relates to the Caribbean context, and in the light of Caribbean concerns and realities. In addition, therefore, to the accepted and current criteria and expectations of teacher preparation in Social Studies, attention will also be paid to the implications of the current concerns, needs and realities of the Caribbean Society, schools and classrooms for the teaching of Social Studies, and to areas in which there is critical need for further research.*

## OBJECTIVES

- To review and analyse current approaches to teacher-preparation in Social Studies
- To examine the social implications for the teaching of Social Studies
- To analyse the applicability of international research in Social Studies education to the Caribbean context
- To review current regional research in the field
- To enable teachers/educators to identify relevant and critical areas of research in the field of Social Studies

## COURSE OUTLINE

### 1. Teacher-preparation in Social Studies

- Basic criteria and programme requirements
- Student background
- Social Studies components
- Professional education
- The knowledge base of the Social Studies teacher
- Paradigms of the Social Studies Teacher
- Cultural induction
- Pedagogy
- Critical rationality

**2. Approaches to the teaching of Social Studies.**

**3. The Social Studies teacher in Caribbean Society, schools and classrooms**

- The Teachers' College programme
- Social Studies for social participation

**4. Research in the teaching and learning of Social Studies**

- Types and designs
- Some current research findings and their applicability to the Caribbean
- Current research in Caribbean Social Studies
- Some areas of needed research

**TEACHING METHODOLOGY**

Student presentations, discussion, and lecture/seminars will be the major techniques used in this course.

**ASSESSMENT**

- A fully referenced research paper of about 6000-8000 words in length (60%)
- A written examination (40%).

## RECOMMENDED TEXTS

Brophy, J. & Alleman, J. (1996) **Powerful Social Studies for elementary students**. Fort Worth, Texas: HBJ.

Dynneson, T.L. & Gross, R.E. (1999) **Designing effective instruction for Secondary Social Studies**. New Jersey, USA: Merrill/Prentice Hall.

Engle, S. & Ochoa, A. (1988) **Education for Democratic Citizenship**. N.Y: Teachers' College Press.

Evans, R.W. & Saxe, D.W. (1996) **Handbook on teaching social issues**. Bulletin 93, Washington: NCSS.

Griffith, A. **Social Studies in Caribbean Schools** (EFA in the Caribbean, Monograph Series No. 2). Jamaica: UNESCO.

Parker, W.C. (2001) **Social Studies in elementary education**. New Jersey, USA: Merrill/Prentice Hall.

Ross, W. (1994) **Reflective Practice in Social Studies**. Bulletin 88. Washington : NCSS.

Ross, E.W. (1997) **The Social Studies curriculum....** Albany, NY: SUNY Press.

## EDSS 6603: ISSUES IN SOCIAL STUDIES EDUCATION

### *RATIONALE*

*Various factors - social, cultural, environmental, political and economic, for example - which all impact on society, require teachers to constantly reexamine and adjust the Social Studies curriculum. New research findings also influence changes in the curriculum. Students will therefore be provided the opportunity to examine the research literature related to recent developments and issues in the Social Studies curriculum itself, as well as in teaching methods, materials/resources and evaluation procedures, and the implications of these for Social Studies in the Caribbean. The course also seeks to throw up other/new areas/topics for potentially useful research in Caribbean Social Studies. Given the changing nature of these issues, specific topics will be announced at the beginning of the course.*

### OBJECTIVES

To engage students in

1. deliberating on different and current view of the Social Studies curriculum;

- 34
2. examining the literature on new and recent issues in Social Studies education;
  3. examining the application of these issues to Social Studies in the Caribbean;
  4. assessing the implications of new and recent developments, and of social factors, for the teaching/learning of Social Studies.

## **CONTENT**

### **1. Current and recent developments in Social Studies curriculum, e.g.**

- The new NCSS standards
- The “thoughtful curriculum” (Shaver)
- Social participation as a major goal (Parker; Conrad)
- The ‘goals-driven’ curriculum (Brophy & Alleman)

### **2. Teaching/learning in Social Studies**

- Activities as a teaching tool (Brophy & Alleman)
- “Authentic” teaching and learning (Newmann)
- Community service-learning (Wade & Saxe; Schukar)
- Constructivist learning (Scheurman & Yell)
- Critical thinking (Wright)
- Co-operative teaching/learning (Stahl).

### **3. Materials/Resources for Social Studies**

- Local newspapers
- The local community
- Local popular music and folk songs
- Maps, graphs and diagrams

### **4. Curriculum issues in Social Studies**

## **METHOD OF ASSESSMENT**

**Coursework**                      60%

- One fully researched paper, of about 6,000 - 8,000 words, on some aspect of a major issue in Social Studies.

**Written Examination**

- 3 hrs                              40%

## RECOMMENDED TEXTS

*Readings will be taken mainly from current journal articles, recent papers and publications, etc., in addition to the following texts.*

Engle, S. & Ochoa, A. (1988) **Education for democratic citizenship**. New York: Teachers' College Press.

Massialas, B. & Allen, R. (1996) **Crucial Issues in teaching Social Studies**. Belmont, Calif: Wadsworth.

Ross, E.W. (1997) **The Social Studies curriculum: purposes, problems and possibilities**. Albany, NY: SUNY Press.

## EDCU 6003: CURRICULUM THEORY

### OBJECTIVES:

To help students to:

1. develop a sound understanding of the concept of curriculum theory in general;
2. know the ingredients of curriculum theory as a sub-theory of education;
3. have some mastery of the fundamental process of theorizing about education and the curriculum;
4. be familiar with existing curriculum theories.

### CONTENT:

1. What is curriculum? Exploring curriculum in the 21st century.
2. The meaning of key terms and concepts in curriculum as a field of study, e.g. curriculum, curriculum design, curriculum theory, curriculum model, curriculum diffusion and dissemination, curriculum implementation.
3. Orientation of Curriculum.
4. Foundational Sources of the Curriculum:
  - Basic assumptions and philosophy of the curriculum worker.
  - Role of ontology, epistemology, and axiology in decision making.
  - Societal and cultural factors in the curriculum decision making.

- The influence of the nature and characteristics of learners.
- The influence of theories of learning.

#### 5. Curriculum Theory

- The nature of theory in general and educational theory in particular.
- The curriculum theory building process.
- A brief historical overview of curriculum theory.
- The uses of curriculum theory.
- Types of classification of curriculum theory.
- Relationship between theory and practice.
- Issues which should engage the attention of curriculum theorists.

#### **ASSESSMENT PROCEDURE**

The assessment of the course will comprise the following:

Coursework - One (1) assignment	-	(40%)
Written Examination - Three (3) hours	-	(60%)

## **EDCU 6004: CURRICULUM DESIGN**

### **OBJECTIVES**

To help students to:

1. develop a sound understanding of curriculum design/curriculum planning/curriculum development;
2. use curriculum theory to design curriculum units and/or school curricula for general education;
3. apply insights from curriculum theory and practice to assess school curricula, past and on-going curriculum development projects in and out of the region, print and non-print learning resource materials.

### **CONTENT**

1. The nature of curriculum design/planning
  - alternative models of curriculum design.
2. Curriculum design/planning: Process and Sources of influence.
3. Disciplines and the Curriculum: What knowledge is of most worth? Knowledge structure and the curriculum.
4. Steps in curriculum design/planning
  - diagnosis of needs
  - derivation of objectives
  - selection and organization of content using appropriate criteria
  - devising of appropriate evaluation strategies.
5. Curriculum Innovation Process: Curriculum Change Strategies - RD&D, S-I, P-S models; the pros and cons of school-based and centralized curriculum policies.
6. The role of key personnel (the teacher, the student, administrators etc.) In curriculum design/planning; designing of new models in accordance with national and regional educational requirements.
7. Designing of actual curricula
  - students will be required to design curricula within their specified disciplines.

## **ASSESSMENT PROCEDURE**

The assessment of the course will comprise the following:

- Coursework - One (1) written assignment - (10%)
- Designing of a curriculum document within a specified subject area (30%)

Written Examination - Three (3) hours - (60%)

## **EDCU 6005: CURRICULUM IMPLEMENTATION**

### **OBJECTIVES**

To help students to:

1. develop an understanding of innovation and change, and curriculum innovation and change in particular;
2. explain the factors that influence curriculum diffusion and implementation;
3. developing an understanding of models/strategies for curriculum diffusion and implementation;
4. master strategies of curriculum innovation, diffusion and implementation.

### **CONTENT**

1. The nature of innovation and change; curriculum innovation and change.
2. Characteristics of social systems in which curriculum diffusion and implementation must be effected (society, education system, the school) and the implications of these characteristics for change.
3. The culture of the school as arbiter of how and what curriculum change occurs.
4. Models/strategies for curriculum diffusion and implementation; idealism vs realism; factors that influence the translation of curriculum into instruction; teacher characteristics, school climate, materials, learning styles, historical perspectives.
5. Factors which influence curriculum diffusion/implementation in the Caribbean:
  - Definition of need for a purpose of innovation.
  - Establishment of climate for adaptability and change in organisational settings.

- Leadership role of curriculum officers, school supervisors, principals, head of departments
- Staff development - resocialization of staff induction into new roles and relationships
- Cooperative involvement of main stakeholders - parents, teachers and students.
- Efficient technology for communication change.

6. Curriculum Research: Possible directions.

### **ASSESSMENT PROCEDURE**

The assessment of the Course will comprise the following:

Coursework - One (1) Assignment - (40%)

Written Examination - Three (3) hours - (60%)

## **EDEA 6801: EDUCATIONAL POLICY, PLANNING AND PRACTICE**

### **OBJECTIVES:**

This course has the following three main objectives:

1. To familiarise the students with the key concepts and issues in educational policy analysis and planning.
2. To enable them to do practical exercises in educational policy analysis and planning.
3. To sensitise them to the special challenges faced by educational policy analysts and planners in small states, especially those in the Commonwealth Caribbean.

**CONTENT:**

1. ***Public Policy, Policy Analysis and Planning***
  - The nature of public policy.
  - Types of policy analysis (descriptive, predictive, prescriptive).
  - Main differences between policy analysis and planning.
  - The role of the analyst (technician, politician, entrepreneur).
  - Ethical considerations in policy analysis and planning (descriptive ethics, normative ethics, meta-ethics, guidelines for professional conduct).
  
2. ***Conducting a Policy Analysis***
  - The policy cycle vs stages in the policy-making process.
  - Verifying, defining and detailing the problem.
  - Establishing evaluation criteria.
  - Identifying alternatives.
  - Evaluating alternative policies.
  - Monitoring implemented policies.
  
3. ***Basic Approaches to Educational Planning: Merits and Demerits***
  - Defining educational planning.
  - The social demand approach.
  - The manpower planning approach.
  - Human resource development (human capital).
  - Cost-benefit analysis.
  - Cost effectiveness analysis.
  
4. ***Educational Planning in Small Countries***
  - Small countries and the dimensions of scale.

- Some problems faced by small countries.
- Some benefits gained by small countries.
- Some states, “managed intimacy”, and the particularistic nature of roles.
- Goals and priorities in educational planning.
- Generalists and specialists.
- Macro-planning vs. Micro-planning.
- Personalisation of the planning process.
- Information needs and data-collection strategies.

## **ASSESSMENT PROCEDURES**

There will be one course work assignment of approximately 2,500 words, which will count for 40% of the final grade, and a final examination which will count for 60% of the final grade.

## **TEXTS**

### **REQUIRED**

HADDAD, Wadi D. (1995). “Education Policy-Planning Process: An applied framework. Paris, IIEP.

BRAY, Mark (1992). *Educational Planning in Small Countries*. Paris: UNESCO.

### **HIGHLY RECOMMENDED**

DAVIS, Russell G. (1980). *Planning Education for Development: Volume-I Issues and Problems in the Planning of Education in Developing Countries*. Cambridge, Massachusetts: Center for Studies in Education and Development, Harvard University.

PATTON, Carl V and SAWICKI, David (1993). *Basic Methods of Policy Analysis and Planning* (2<sup>nd</sup> Edition). Englewood Cliffs, N.J.: Prentice Hall.

## **EDEA 6802: COST ANALYSIS IN EDUCATIONAL POLICY ANALYSIS AND PLANNING**

### **OBJECTIVES:**

The course seeks to inform actual and potential educational managers who do not routinely have access to cost data for planning and other management tasks about the following:

1. Why it is important to have adequate information on the costs of education;
2. What kinds of information they should have;
3. How such information may be used to improve management and efficiency; and
4. How to go about collecting the information.

It is important to appreciate that the course is not intended to be a technical manual on cost analysis methodology, but to provide a general orientation toward gathering and using cost data to guide decisions.

### **CONTENT (Main Topics)**

#### *The Economic Settings and the Need for Cost Analysis*

- Impact of the economic situation on educational budgets (especially those in the Eastern Caribbean).
- The importance of cost analysis in evaluation and decision-making.

#### *Cost Analysis Approaches in Evaluation and Decision-Making*

- Cost-benefit
- Cost-effectiveness
- Cost-utility
- Cost-feasibility

#### *Key Elements in Education as a System*

- Objectives
- Outputs

- Benefits
- Internal process
- Inputs
- Efficiency and productivity (internal efficiency, external productivity).

### ***Different Ways to Express Educational Costs***

- Opportunity cost
- Resource cost vs. money costs
- Factor costs
- Current vs. capital costs
- Total expenditures
- Current vs. constant prices
- Public vs. private costs
- Unit cost

### ***Determinants of Educational Costs***

- Educational demand
- Educational technologies
- Teacher salary structures
- Drop out and repeater rates
- Utilisation rates
- Market forces

### ***Typical Cost Patterns and Problems***

- Dominance of personnel costs

- Rise of unit costs
- Higher costs at higher levels
- Economies of scale

## **CONDUCT OF THE COURSE**

Lecture/discussion, seminars, group work.

## **ASSESSMENT PROCEDURES**

One assignment worth 40% of the final grade and due around the middle of the semester.

A final examination, worth 60% of the final grade.

## **BASIC READINGS**

**COOMBS, Philip H. & HALLAK, Jacques.** *Cost Analysis in Education: A Tool for Policy and Planning.* Baltimore and London: The John Hopkins University Press, 1987.

**LEVIN, Henry M. and UCEWAN, Patrick J.** *Cost Effectiveness Analysis: Methods and Application.* 2<sup>nd</sup> edition London: Sage Publications, 2001.

**THOMAS, Hywel.** *Education Costs and Performance: a Cost-Effectiveness analysis.* London: Cassell Educational Ltd.,1990.

## **EDEA 6803: EDUCATION AND THE PLANNING AND MANAGEMENT OF HUMAN RESOURCES**

### **OBJECTIVES:**

The course has six main objectives:

- (1) to familiarise the student with the human resource perspective on development and how that perspective differs from other perspectives on national development.
- (2) to compare traditional and current methods of human resources planning.
- (3) to sensitise the student to the importance of integrating human resources and educational planning.
- (4) to examine critically five key issues in formal education which should be addressed by educational planners.
- (5) to examine selected dimensions of the problem of underutilisation of human resources; and
- (6) to examine the relationship between education and the labour market, especially with regard to the problem of educated jobless youth.

### **CONTENT:**

1. ***Theories of Development and the Human Resource Perspective***
  - Defining national development.
  - Defining human resources.
  - National development from the human resource perspective.
  - Other theoretical perspectives on national development.
  - Integrating human resources and educational planning.
2. ***Methods of Human Resources Planning***
  - The manpower approach and its limitations.

- Other traditional methods.
- Recent trends in human resources planning.

### 3. ***Critical Issues in Formal Education***

- Education as a self escalating industry.
- Outputs of the system.
- Access to educational opportunity.
- Allocation of financial resources.
- Organisational and human constraints.

### 4. ***Underutilization of Human Resources: Dimensions of the Problem***

- Open unemployment.
- Underemployment.
- Disguised unemployment.
- Mal-employment.
- Underutilisation in the modern, traditional and intermediate sectors of the economy.

### 5. ***Education and the Labour Market***

- Theories of labour markets and unemployment (orthodox, dualistic, radical) and their implications for employment policy.
- Educational planning and educated jobless youth.
- Distribution of unemployment by age group.
- Problems posed by growing educated unemployment.
- Policy-measures for planners to solve the problem of jobless youth: education-based measures; non-education based.

## CONDUCT OF THE COURSE

Lecture/discussion, seminars, group work.

## ASSESSMENT PROCEDURES

One assignment, worth 40% of the final grade and due around the middle of the semester.  
A final examination, worth 60% of the final grade.

## REQUIRED READINGS

**Unit 1** Harbison, Chapter 1  
Fagerlind and Saha, Chapters 1 and 2  
Chinapa, Lofstedt and Weiler (entire article)

**Unit 2** Bertrand (1992)

**Unit 3** Harbison, Chapter 2  
Coombs, Chapter 1  
Atchoarena (1994)  
Samoff (1994)

**Unit 4** Harbison, Chapter 2  
Carnoy (1976)  
Bishop, Chapters 4 and 12

Bertrand, Oliver (1992). **Planning Human Resources: methods, experiences and practices.** Paris: UNESCO.

Carnoy, Martin (1976). **Education and employment: a critical appraisal.** Paris: UNESCO.

Chinapa, V. Lofstedt, J. and Weiler, H. (1989). "Integrated development of human resources and educational planning." **Prospects.** Vol. xix, No. 1, pp. 1132.

Fagerlind, Ingemar and Saha, Lawrence (1989). **Education and National Development: A Comparative Perspective.** (2nd edition). Oxford: Pergamon Press.

Harbison, Frederick H. (1973). **Human Resources as the Wealth of Nations.** New York: Oxford University Press.

Samoff, J. (1994). **Coping with crisis: austerity, adjustment and human resource.** Paris: UNESCO.

# **TITLE: TRENDS IN CURRICULUM DEVELOPMENT IN SCIENCE EDUCATION**

**COURSE CODE: EDSC 6704**

**DURATION: 39 hours**

## **Rationale**

Prior to the “golden-age” of the worldwide science curriculum reform, which started in the USA and Britain in the late 1950s and continued till the early 1970s, secondary science education in the western world emphasized knowledge acquisition. On the other hand, most of the secondary science curricula developed during this reform period - and up till today - also prioritised conceptual learning of abstract system of scientific knowledge cushioned with laboratory/science process skills.

About the end of the 1960s, there was increasing evidence that many secondary science students had a bad image of science. Moreover, partly, because of its social, esoteric and academic flavours, many students were not doing well in science and were turning away from the subject.

In order to make science more relevant to societal needs and encourage more students to study it, attempts have been made since the 1970s to introduce science curricula targeted on social concerns into schools in many parts of the world. The efforts being made have led to a movement towards “science for all” curriculum, a re-emphasis of integration and interdisciplinarity in science teaching, the development of curricula in environmental education (EE), science, technology and society (STS) curricula, as well as a focus on the issues of values in science education. One of the dominant goals of the EE and STS curricula is the development of critical thinking skills in students to enable them to engage in decision-making process in school and out-of-school activities. In spite of the lessons learnt from the gaps in the science curriculum reform efforts of the 1960s, there are still recurrent dilemmas amidst the current/new directions in science education.

As in other parts of the world, efforts are being made in the Caribbean to make science education relevant to societal needs. Hence, science teachers in the region - especially the teacher trainers - need to be conversant with and knowledgeable about the major global trends and dilemmas in science education and how these have impacted science curriculum development in the Caribbean.

## **OBJECTIVES:**

1. To update the participants about the main current worldwide trends and dilemmas in science education development as well as the Caribbean.
2. To familiarise participants with the basic principles of curriculum development and their application to the development of science curricula.

3. To create an awareness of the justification for the “science for all” movement and an appraisal of its curriculum content.
4. To enable the participants to critically appraise the theoretical and practical issues that underpin integration and inter-disciplinary in science teaching.
5. To foster an understanding of the relationship between science and technology education as well as the goals and basic issues in EE and STS curricula.
6. To familiarise the participants with the fundamental issues of values in science education and the principles of values teaching.
7. To engender an appreciation of the philosophies/models of evaluating science curriculum and instruction as well as impart the knowledge of performing the task.
8. To sensitize the participants to the social/political factors that influence changes in the science curriculum.

## **CONTENT OUTLINE**

### ***Basic principles of curriculum development***

- definitions of the school curriculum
- critical issues in the curriculum
- purpose and structure in the curriculum
- strategies for curriculum development/planning
- strategies for diffusion and implementation of curriculum innovations

### ***Worldwide trends in science education***

- trends in science curriculum development at primary, secondary and tertiary levels
- integration in science teaching
- interdisciplinarity in science teaching
- science for all movement
- science and technology education

- science-technology-society (STS) curricula
- environmental education
- values in science education
- values teaching principles
- the socio-political pressures on science education
- the constructivist approaches to science curriculum development
- beyond constructivism

### ***Trends in science education in the Caribbean***

- integration movement in the 1960s/70s
- the impact of the Caribbean Examinations Council
- national initiatives
- the impact of science at tertiary level

### ***Evaluation of curriculum and instruction***

- definition of evaluation, assessment, measurement
- models/philosophies of evaluation
- curriculum evaluation systems
- curriculum evaluation determinants
- role of evaluation in curriculum and instruction

### ***Assessment***

- (a) Course Work (40%)  
An evaluation of a named science curriculum
- (b) Written Examination - 3 hours (60%)

# **TITLE: LEARNING AND TEACHING IN SCIENCE**

**COURSE CODE: EDSC 6613**

**DURATION: 39 hours**

## **Rationale**

Work in recent years has demonstrated the connections between philosophies of science, learning theories and teaching methodologies. The central importance of the scientist in the creation of scientific theories has been widely recognised in recent times. There has also been an adoption of cognitive perspective in many educational research programmes concerning learning and the importance of the learner in the teaching of science has been highlighted.

There is now also widespread international interest in the possible uses of the history and philosophy of science in science teaching in order to promote greater appreciation of the nature of science, improve comprehension of science concepts and to demonstrate the cultural and humanistic aspects of science amongst other aims.

## **OBJECTIVES**

To develop in the participants:

1. an understanding of the nature of science and scientific method;
2. an appreciation of the implications for science education of developments in the philosophy of science;
3. a recognition of the complex relationship between observation and theory in science and of the importance of scientific models;
4. an awareness of how the history of science may be utilised in science education;
5. a knowledge of some of the main psychological traditions that have influenced research in science education;
6. an appreciation of the importance of the consideration of the characteristics of the learner in science teaching; and
7. a knowledge of developments in teaching methodology in science education and the ability to analyse such methodologies in terms of their strengths and weaknesses.

## CONTENT OUTLINE

### 1. *The Nature of Science and Scientific Enquiry*

- Inductivism and the problem of induction
- Falsification
- Observation and theory
- Paradigms and paradigm change
- Research programmes
- Anarchistic theories of knowledge

### 2. *Learning and Learning Difficulties in Science*

- Learning theories and their application to science education with an emphasis on constructivism, and appropriate reference to developmental, information-processing and behaviourist traditions.
- Students' perceptions: their origins and possible impact on science learning in the classroom: changing children's concepts.
- Language and science learning - the language of society and its possible effects on scientific understanding.
- History and philosophy of science - their relation to learning theories and possible use in the classroom to promote learning.

### 3. *Methodologies in Science Teaching*

- Approaches to the teaching of science: an historical analysis
- Assessment of the "success of" different approaches
- The debates between product/process; heurism/dictatism
- The uses of practical work and its place in science education and related issues.

### ***Method of Assessment***

#### Course Work

- (i) An exploration of the ideas or cognitive level of a sample of learners of science at the primary or secondary level

OR

- (ii) An exploration of the application of ideas concerning the nature of science in the classroom or a curriculum.

Written Examination - 3 hours

(60%)

## **TITLE: MEASUREMENT AND ASSESSMENT IN SCIENCE EDUCATION**

**COURSE CODE: EDSC 6205**

**DURATION: 39 hours**

### **Rationale**

Kempa (1986) points out that examination and assessments serve a range of different functions.

These may include the:

- assessment of the attainment of students at the end of a course of study
- diagnosis of student's learning difficulties
- monitoring student progress, including SBA
- estimation of student's aptitudes
- evaluation of educational programme and materials e.g. textbooks, curricula
- selection of students for higher or further education or employment
- maintenance of educational standards.

Examinations and assessments thus exert a considerable influence on both the content and methodology of the teaching/learning experiences in the classroom.

Regionally the Caribbean Examinations Council has adapted criterion-referenced modes of assessment, profiles and a range of examination formats including school-based assessment in most subjects.

Science educators in the region need to be aware of the trends of assessment in science education, to understand the bases for reliable and valid assessment and to be able to relate such issues to classroom strategies and methodologies.

The appraisal and assessment of teachers' performance has also become an issue in recent years with greater demand for results. Some countries e.g. Barbados, have created comprehensive instrumentation to achieve effective teacher appraisal.

## **OBJECTIVES**

To develop in the participants:

1. an awareness of the relations between the aims of science education and the forms of assessment adopted.
2. a familiarity with, and an ability to use the range of assessment techniques available.
3. an understanding of the concepts validity and reliability as it applies to all aspects of assessment.
4. a knowledge of the techniques used to access science curricula and science textual materials and resources.
5. an understanding of the range of models of teacher appraisal available.

## **CONTENT OUTLINE**

Aims and objectives of science education and their relation to forms of assessment. Range of assessment techniques available:

- strengths and weaknesses of each: diagnostic, formative and summative assessment.
- instrument construction and item analysis. Question development and mark schemes. Multiple choice question development.

Reliability and validity of examinations and items - relation between validity and use.

Data analysis and interpretation including criterion and norm-referenced methods of interpretation of examinations.

Assessment of: knowledge and intellectual skills

practical skills - examinations and school based assessment

attitudes and behaviour

Profiles and profiling

Assessment of resources for science.

Assessment of science textual material, reading level, potential cultural and gender bias, appropriateness for students.

Evaluation of Curricula.

Assessment and appraisal of the performance of teachers.

Oral assessment.

## **ASSESSMENT**

Coursework (40%)

The construction of an instrument of evaluation of some aspects of science education and a pilot for its use.

Written Examination - 3 hours (60%)

# **TITLE: TEACHING METHODOLOGIES IN SCIENCE FOR THE POST-SECONDARY LEVEL**

**COURSE CODE: EDSC 6614**

**DURATION: 39 hours**

## **Rationale**

This course has been designed primarily to enable the participants who have not been formally trained to teach science to improve, update and hone their pedagogical knowledge and their pedagogical content knowledge. To this end each participant is expected to plan and teach specific science lessons during micro-teaching sessions in preparation for the teaching practice/practicum exercise.

## **OBJECTIVES**

1. To develop in participants an awareness of the importance, features and underlying theories of instructional planning.
2. To familiarize participants with common instructional strategies suitable for teaching science at the post-secondary level.
3. To develop participants' competence in utilising various teaching strategies and instructional models in teaching science at the post-secondary level.

## **COURSE OUTLINE**

### ***Instructional Planning***

- Developing an instructional theory
- Curriculum perspectives - upper secondary and post-secondary
- The objectives of science teaching
- Science teaching preparation - unit and lesson planning

### ***Instructional Strategies***

- Inquiry and conceptual change
- Questioning and discussion
- Investigation and problem solving

- Demonstration and laboratory work
- Field trips
- Case studies
- Computers and audio-visuals

### ***Models for Effective Science Teaching***

- The learning cycle
- The 5E Instructional Model
- Cooperative Learning

### **Methodology**

Lectures, discussions, micro-teaching, oral presentations, workshops.

### **Assessment**

Written Examination - 3 hours

(60%)

Micro Teaching - each student will be required to teach specific topics from an “A level” syllabus to their peers using some of the strategies covered during the course. Students will be graded based on their presentation during those sessions -

(40%)

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