<div align="center">

**University of Guyana**
**Faculty of Education & Humanities**
**Department of Foundation & Education Management**

</div>

_____

<div align="center">

**Course Outline**

</div>

_____

**COURSE NUMBER:**            EFN 5302
**COURSE TITLE:**             Educational Technology for Teachers
**CREDITS:**                  3
**EXEMPTIONS**:               NIL
**PRE & CO - REQUISITES:**    NIL
**INDICATION OF FOLLOW-ON COURSES:** NIL

**LECTURERS: MS VOLDA ELLIOTT:** ugefn5302@gmail.com

       **MS AMELIA PERSAUD:**  a_nataliepersaud@yahoo.com
       **MR. JAIGOBIN JAISINGH:**  jaigobin_jaisingh@hotmail.com
       **MS.  JUANELLE.MARKS**          : juanelle.marks@uog.edu.gy

**COURSE DESCRIPTION:**
This course is designed to assist student-teachers integrate Educational Technology (Ed Tech) into their classrooms. The primary focus, therefore, will be to help student-teachers make the link between the scope and sequence of Ed Tech and apply its practical uses to the classroom with the intention of increasing pupils'/students' interest and academic achievement. Attention will also be given to the use of Ed Tech to enhance curriculum and professional development for student-teachers. Hence, the ultimate goal of the course is to develop student-teachers' confidence to make technology an embraceable tool for use in classrooms throughout the education system of Guyana

**STUDENT LEARNING OUTCOMES:**
By the end of the course students will be able to:

- State the meaning, scope and significance of Ed Tech;
- Distinguish between communication and instruction in order to develop and integrate instructional technologies;
- Discuss the roles visuals play in instruction;
- Discuss past, present, and future trends in media and technology;
- Describe the strengths and limitations of educational technology and articulate a personal philosophy of how technology should be used in schools;
- Produce instructional materials using any of the technologies covered in the course;
- Use different approaches and components of media technology to develop packages of Audiovisual Technology.

**COURSE CONTENT:**

**Unit I: What is Educational Technology (ET)?**

**Week 1**:      **Educational technology and its influence in education**
      1.   Education Technology (ET) in the 21$^{st}$ century
      2.   Educational Technology: Definitions, Theories
      3.   Problems, barriers and possibilities associated with (ET)
      Tutorial Session/Activity Knowledge Deepening (KD)  Module 1 Unit 1 & Module 1 Unit 2

**Week 2:**       **Hardware and software in education technology**
      1**.** Hardware in Educational Technology: Television, OHP, LCD and slide Projectors
      2. Software in Educational Technology: Video Cassettes, Films, Tapes, CD and DVD
      3. Using Instructional hardware and software: computers, interactive whiteboards, document cameras, digital audio recorders;, scanners, printers,

cameras, specialized software (web development, video production, audio production, graphics)
4. Computer hardware and software for teaching physically challenged students
5. Case Study
http://www.criminaljustice.state.ny.us/missing/i_safety/mediafiles/mshs_v5-7-10-notes.pdf
Tutorial  Session/Activity KD Module 3 Unit 4

**Week 3**:      **Specific Tools to support the curriculum**
1**.**   The Development of Education Technology
2**.**   Models Associated with ET
3.   The Elton model, ASSURE Model (Analyze, State, Select, Utilized, Require, and Evaluate), Dale's Cone of Sensory Experiences
4**.**   Gardner's Multiple Intelligence
Tutorial Session/Activity KD Module 2 Unit 1

**Week 4**:      **Instructional approach towards selecting Technology**
1.   Types of instructional techniques .Welliver's Instructional Transformational Model, ADDIE Model ( Analyze, Design, Develop, Implement, and Evaluate)
2.   The Systems Approach to Educational Technology
3.   Constructivist, Behaviorist, Cognitivism
4.   A System Approach and Educational Technology in the Guyanese context
Tutorial Session/Activity KD Module 2 Unit 1

**Week 5:**      **Strategies for teaching with Technology**
1.   Teacher-Centered strategies
2.   Child-Centered strategies
3.   Project Based Learning (PBL).
Tutorial Session/Activity KD Module 2 Unit 1  & KD Module 3 Unit 1

**Unit II: Visual Perceptions/ Projected and Non-Projected Visuals**

**Week 6:**      **Visual literacy**
1.   Colour Wheel, Intensity Charts, Shades, Tints, Display Formats
2.   Use of visuals: learning from visuals, learning from making visuals
3.   Cartoons, posters, charts, pictures, characteristics, advantages/ limitations, preparation
4.   Characteristics of good teaching aids classified as pictures
Tutorial Session/Activity KD Module 2 Unit 1

**Week 7**:      **Visual literacy**
1.   Psychology foundations, visual discrimination
2.   Three Dimensional Teaching Aids: Dioramas, Cinematograph, Mobiles
3.   Puppetry in the Classroom, value, range construction and use
4.   Making Puppets, Mobiles
Tutorial Session/Activity KD Module 2 Unit 1

**Week 8**:      **Mid Term Test (22%)**
**Practical:**
http://www.schoolnet.org.za/CoL/ACE/course/pbl/activities/pbl.index.htm

**Unit III: Subject Specific and Open-Ended Tools for Learning**

**Week 9**:      **Subject Specific Tools for Learning- Audio**

1.   The audio-media: The Hearing-Listening Process
2.   Writing for the listener
3.   Potential facilitation challenges & solutions
4.   ICT Tools to support facilitation
Tutorial Session/Activity KD Module 2 Unit 1 & 2

**Week 10**:     **Open-ended Tools for Learning –Computer**
1.  Role of computers in Education
2.  Advantages /Disadvantages of Computer-based Instructions
3.  Hardware and software considerations for computer-based instructions

Tutorial Session/Activity KD Module 3 Unit 4, & KD Module 5 Unit 2

**Week 11**:     **Open-Ended Tools for Learning- Multi-Media**
1.  Developing multimedia learning resources using computers and related equipment (scanners, printers, etc)
2.  The Internet, Intranet and Extranet; advantages for the classroom
3.  Multimedia Presentations and applications.

Tutorial Session/Activity KD Module 5 Unit 2

## Unit IV: Issues in the Use of Education Technology

**Week 12:**     **Physical Learning Environment for social interactions**
1.  Evaluation of Computer Software and Technology use
2.  Legal and Ethical concerns about Computer Software and Technology use
3.  Creating a physically safe environment
4.  Case Study -

http://www.criminaljustice.state.ny.us/missing/i_safety/mediafiles/mshs_v5-7-10-notes.pdf

Tutorial Session/Activity KD Module 4 Unit 2 & KD Module 4 Unit 1

## Unit V: Education Technology for Life Long Learning

**Week 13:**     **Education Technology and Professional Development (PD)**
1.  Personal Learning Networks (PLN) including MOOCs, Twitter, Facebook groups, Instagram
2.  Educator social network platforms such as 'Partners in Learning Network', Edmodo etc.
3.  Online PD Courses: ACEs
4.  Case Study -

http://www.criminaljustice.state.ny.us/missing/i_safety/mediafiles/mshs_v5-7-10-notes.pdf

Tutorial Session/ Activity KD Module 4 Unit 2 & KD Module 5 Unit 2

**Week 14**:     **Review**

**Week 15:**     **Final Examination**

## METHOD OF TEACHING:

Didactic: Lecture by teacher
Managerial: Small groups such as task oriented, discussion, valstar4life, Socratic, Edmodo
Dialogic: Presentation by a panel of students
Modeling: Multimedia presentation Model

## METHOD OF ASSESSMENT:

**Course Work        60 %**

| | | |
|---|---|---|
| 1. | **Tutorial** | **8 %** |
| 2. | **Group Practical** | **7 %** |
| 3. | **Mid – Term Test** | **15%** |
| 4. | **Practical Test** | **10%** |
| 5. | **E-Portfolio Website** | **20 %** |

**Final Examination                40 %**

## REQUIRED READINGS:

Mayer, R. E., & Moreno, R. (2003). Nine ways to reduce cognitive load in multimedia learning. Educational Psychologist, 38(1), 43–52.

Roblyer,*M., D ,*Doering, A.,H *(2012)* Integrating Educational Technology into Teaching / Edition 6th: Pearson  ISBN: 0132612259

Roblyer, M., D (2014). *Introduction to Systematic Instructional Design for Traditional, Online, and Blended Environments*. USA: Pearson Merill Prentice Hall

Smaldino, S. E., Russell, J. D., Heinich, R., & Molenda, M. (2015). *Instructional technology and media for learning*. USA: Pearson Merill Prentice Hall

Donohue, C. (2015) Technology and Digital Media in the Early Years: Tools for Teaching and Learning. Routledge Taylor & Francis Group

Vaughan, T. (2014). Multimedia: Making it work (9th Ed.). New York, NY: Osborne/McGraw-Hill.

**RECOMMENDED READINGS:**

Clark, R., & Mayer, R. E. (2012). E-Learning and the science of instruction: Proven guidelines for consumers and designers of multimedia learning (3rd Ed.). San Francisco, CA: John Wiley & Sons.

Dudeney, G. & Hockly, N. (2007). *How to teach English with technology*. London: Longman.

Jonassen, D., Howland, J., Moore, J., Marra , R. (2003). Learning to Solve Problems with Technology: A Constructivist Perspective . Upper Saddle River , NJ : Prentice Hall.

Knapp, L. R. & Glenn, A. D. (2002). *Restructuring Schools with Technology*. USA: Allyn and Bacon.

Laurillard, D. (2004). *Rethinking university teaching: A framework for the effective use of educational technology*. New York: Routledge.

Sandholtz, J. H., Ringstaff, C., & Dwyer, D. C. (2006). *Teaching width Technology*. USA: Teachers College Press.

Friedman, S. (2014)  Technology that Supports Early Learning – Three Examples. Retrieved from http://www.naeyc.org/blog/technology-support-early-learning

**Links for Tutorial**:

WK1.http://www.education.gov.gy/web/index.php/resource-library/category/3-primary-curriculum-guides.html

WK1.  http://www.education.gov.gy/web/index.php/resource-library/category/4-secondary-curriculum-guides.html

WK2.http://unesdoc.unesco.org/images/0021/002134/213475E.pdf

WK3. http://en.wikipedia.org/wiki/Application_software

WK4. http://www.gcflearnfree.org/excel2010/14

WK5.  http://www.schoolnet.org.za/CoL/ACE/course/pbl/activities/pbl.index.htm (CC BY)

WK6. http://www.avaaz.org/en/

WK7. http://www.schoolnet.org.za/CoL/ACE/course/pbl/activities/pbl.index.htm

WK8. http://www.schoolnet.org.za/CoL/ACE/course/pbl/activities/pbl.index.htm

WK9.   http://www.pil-network.com/

WK10. http://www.edmodo.com/

WK 11. http://ccti.colfinder.org/education/pre-service-guyana

WK12. http://ccti.colfinder.org/sites/default/files/guyana/index.html

WK13.http://www.gcflearnfree.org/word2010/21