



E-learning at Fiji National University

Shareeni Kala, Fiji

Abstract

E-education and e-learning are online learning processes, where computers are used at each possible step of the process, from enrolment, instruction design, and content delivery, to evaluation, assessment, and support. This is developing rapidly especially with the advancement of learning technology. Students and teachers do not have to sit in the classroom or be face-to-face but can now take part in e-learning from anywhere in the world and at any time, thanks to online facilities. In this paper, Fiji National University (FNU) was used to determine the possibility of e-learning. A new programme was chosen and a programme document was written. Based on the programme, a unit syllabus was developed. Given the infrastructure of the information and communication technology (ICT) department at FNU, this project will be deployed as a pilot project for evaluation and monitoring of e-learning research.

Keywords: Fiji; e-learning; ICT; Fiji National University

Introduction

Fiji National University (FNU) is a growing university. It started offering its services in 2009. It offers courses in technical and vocational education (Certificate I to IV programmes), and trade diplomas in commerce, science, education, sports, and engineering. The university also offers higher education certificates, diplomas, degrees, and higher degree programmes. All teaching is carried out face-to-face, through either day or evening classes.

The university is an amalgamation of six major institutes in Fiji. One of the areas that has major potential is that of helping students who cannot reach urban centres for education. Fiji has many major outer islands and mainland rural communities, which may find online facilities helpful, as this would enable them to work flexibly from any locality. The programmes offered are on full-time and part-time bases, and as day classes, evening classes, and extension classes. The institutional and governmental dimensions of technological development are diverse, dynamic, and overlapping (Crewe and Young, 2002). Policymakers and researchers have to work hand-in-hand to identify the underlying structural support for e-learning at FNU.

In a contemporary policy framework, academics need to match the e-learning availability for the students, communities, nationally and internationally. By definition, e-learning has three dimensions: e-learning, e-learning that involves e-teaching, and e-learning along with the various administrative and strategic measures needed to support teaching and learning in an Internet environment. E-learning needs to incorporate a local, regional, national, and international view of education (Campbell, 2002).

Not much research on e-learning is available. Therefore, there are many unanswered questions, such as what is e-education, how will teachers and students relate, and what is the education investment in terms of time, cost, and technology?

The focus of the present study is on a graduate programme at FNU that seeks to prepare graduate students to address the needs of FNU students. Research looked into the need to reach out to prospective students who live in remote areas on outer islands, as well as full-time workers. The technological access, including access to computers and to the Internet, would enable e-learning students to study from any location and to have the flexibility to choose the pace of education delivery.

The current learners of face-to-face education are already exposed to chat, messaging, chat rooms, and IP telephony. They already participate in collaborative discussion and in using brainstorming tools such as e-mail, forums, and mobile texting. Learners enjoy virtual games or online games, use virtual worlds, and talk to other online players. The learners are associated with social networking sites such as MySpace, Flickr, Facebook, and YouTube.

In this research, the focus is on technological and pedagogical issues, as students have so far been largely overlooked. The project is to direct attention to e-learners who are using technology to support their learning activities. Several interviews have also been conducted to gain insight on the expectations of e-learners in using and experiencing technology with logical devices or software that allows independent learning.

Methodology

The key research methodology for setting up the e-learning system at FNU would be evidence-based, where the primary goal is to improve the reliability of advice concerning the efficiency and effectiveness of policy settings and possible alternatives. In a blog posting, Henriques J. (2009) considers that evidence-based education would be analogous to teaching practices that have been shown to enhance student learning under controlled conditions, and it would be akin to implementing these practices in the classroom. There are numerous practices that seem to be more effective than traditional lecture-based strategies and that teachers can mould to their particular situation (Chew, 2009).

Hea B. (2009 p. 14) states that evidence-based policymaking would lead this research work in e-learning by putting the best available evidence from research at the heart of policy development and implementation (Davies, 2004). The evidence-based policymaking discourse has become popular among a range of policy communities, both those within government departments and research organisations. It advocates a more rational, rigorous, and systematic approach and moves beyond traditional notions of research to adopt a broader understand-

ing. In most discussions, the approach has also come to incorporate evidence-based practices.

The policy cycle used was the Young and Quinn (2002) model to elaborate on the following phases with key questions:

- Problem definition for e-learning for teaching programmes and technological requirements.
- The formulation and construction of policy alternatives to ensure that the e-learning system at FNU provides an answer to which e-education or e-learning programmes of study can be offered.
- The expected cost for the e-learning set-up and the impact of e-learning on the FNU community.
- The implementation of actual practical activities or choice of solution, based on the selection of a preferred option of operational evidence to improve effectiveness in terms of desired outcomes.
- Efficiency, based on a cost-benefit analysis of both financial and social impact, and how it affected the target groups. This required research where pilot projects were to be implemented.
- Evaluation, monitoring, and assessment, to be carried out after the pilot project is declared successful, through processes of monitoring and evaluation on the key evidence of meeting the relevant objectives. The literature review covered the e-learning techniques adopted in many parts of the world.

Constraints

The largest hurdle in this research was to obtain feedback from the offices at the university; hence, the avenues to collect data were significantly poor. The required interviews were delayed and reports from the information and communication technology (ICT) office on e-learning were unsuccessful. During the period of the survey, most offices were closed. The need for training and equipment for the setup of e-learning was eliminated due to lack of time. Funding for travelling, technical set-up, and feedback from local community, students, and teachers for the research sought was not available; thus, the sample gathered was limited. Finally, the pro-

posed timeframe for the research was condensed into six weeks from a three-month schedule.

Literature review

The universities have taken the initiative to continue education such as at University of Cambridge where e-Learning is a means to take up part-time studies or flexible studies online or in the virtual learning environment from continuing education at Cambridge University (eLearning at the institute, 2010). The fundamental concepts or characteristics of excellence are results orientation, customer focus, leadership, constancy of purpose, management by processes and facts, people development, involvement, continuous learning, innovation and improvement, partnership development, and public responsibility (Campbell, 2002). The characteristics of e-learning have links to different evaluation areas and also to each other. The partnership development, for example, requires identification of e-learning, prioritisation and objective setting for e-learning that would generate added value for customers (the prospective students). Focus on vocational education and training requires identification of customer (student) needs and the world of work, development of products and services based on these, and monitoring and analysis of customer results achieved. Results should be used as a basis to improve operations and set new objectives.

To develop the meaning further, each question asked to consider factors that any business or university needed for set-up. The leadership is as important as e-learning and the e-learning process. Management can motivate and stimulate in a way that fosters continuous improvement. The Egyptian E-Learning University (EELU) established e-learning as

'E-learning: Students can access courses' materials, lectures, virtual classrooms, and any information through both the EELU Intranet and the Internet.

This type of learning allows for interactive collaboration among the students and the instructors' (<http://www.eelu.edu.eg/wps/portal> [accessed on 1 May 2011])

This enables the policy and strategy to be concerned not only with e-learning and service quality, but also with organisational policy and strategy. Policy deployment is important to ensure that the strategy is formulated and that the management is fully in the loop.

The human resource aspect covers areas of training and service quality but also goes further than that: it requires effective human resource development, teamwork, empowerment, rewards, and career planning. Partnering with suppliers is important to emphasise the mutual beneficial relationships. Development and use of knowledge are points for attention. Resource facilities as Hamline University provides need to be maintained for capability (Hamline University, 2011).

The strategy should focus on the processes that are necessary to deliver the organisation's strategy, including quality processes such as change management and reengineering processes. This leads to customer appreciation which requires evaluation of customer satisfaction through surveys and interviews. The people working in the organisation need to be interviewed for ideas, through team briefings and suggestion schemes, to grasp their appreciation of the organisation. The position in society would hence be established in such a way that enables e-learning to make an impact on society; for example, through involvement in the community, which would enable the university to evaluate its financial and operational measures.

Discussion and recommendations

FNU needs to look at e-learning as a business consideration plan through the strategic planning mechanism. The strategic initiatives of FNU need to be discussed and assessed if the e-learning mode can be adopted strategically. It has to look at strategic opportunities of implementing e-learning, such as the meteorology, hydrology and associated sciences supported by e-learning course for weather forecasting done by the WMO e-learning website at the MET e-Learning. There have to be broad aims, goals, and objectives from the perspective of a business model that can show e-learning as an initiative akin to a business model. However, this would unavoidably give

rise to problems related to e-learning, for which solutions and alternatives need to be found.

Vision

The goal is to communicate information or improve skills by introducing the e-learning programme and to then gauge the impact of organisational performance. The regulatory, legal, and compliance considerations need to be well-documented in the e-learning policy framework. The current research focuses on attempts to solve e-learning challenges, which rely on the commitment of FNU to be seriously committed to this initiative.

Risk compliance

The risk was outlined in the scope of the project. Expectations of the stakeholders such as students, tutors, managers, technical experts, and user assistants need to be taken into consideration. All stakeholder roles need to be clearly defined against articulated desired outcomes with respect to levels of interactivity, multimedia, graphical work, as well as stakeholder's knowledge and experience with e-learning.

Once the pilot project is implemented, the e-learning platform/environment then needs to be tested and established. The mechanisms of how to manage project risk are required especially for the next level, where processes can be accommodated if the scope changes with the first implementation of the e-learning pilot project.

Financial analysis

The financial side of the e-learning setup is crucial. Return on investment (ROI) needs to be determined in the post-implementation phase. For financial considerations, the consequences of not executing the learning initiative and the cost associated with inaction need to be determined as well.

For the e-learning setup, FNU is expected to analyse the financial benefits of implementing the learning initiative through short-term and

long-term planning, including the cost differential between internally and externally hosting the set-up (the server, human resources, security, risks, downtime of the infrastructure, and the lost opportunity costs for ICT staff). The full cost of the e-learning project (servers, staff, and learner's time) is required to monitor and analyse the pilot project.

The purpose of the e-learning initiative should be to save money and to improve performance at FNU. Policies for e-learning have to be in place. Once they are, the finer details of return on investment, handling ongoing costs and less expensive alternatives can be determined.

Media requirements

E-learning at FNU would rely heavily on the availability of infrastructure and how the delivery is designed. The delivery format would foremost use the Internet, but can also be implemented through electronic devices such as CD-ROMs and DVDs. It would have to look into the availability of connectivity for e-learning students. An e-learning content management system needs to be developed around the identified and proposed programme and the programme's structural outline (Appendices A and B, respectively). The desired technology which is compatible with e-learning standards and rules needs to be specified. This would help the students acquire compatible hardware/software according to the established end-user requirements.

The current materials need to be available also in specified formats as support for the learning programme. The desired media of e-learning programmes include materials supported by 2D and 3D graphics, animations, sound effects, and pre-recorded media.

Applications

An e-learning student record management needs to be implemented. The FNU would need to document and audit the e-learning students' performance, keep a record of the grades and achievements of the students, and apply admin-

istrative processes such as enrolment and registration. It also requires making an alumni list.

Technological infrastructure

The e-learning system needs to be hosted on in-house servers since the ICT department has the capability to maintain the server. The ICT department needs to outline technical specifications and compare them with outsourced server services. The need for firewalls must be considered to ensure smooth running of the programme. The e-learning computers' specifications capable of accessing the learning programme also need to be outlined.

System

Standards and compliance systems need to be employed for compatibility with the systems software. The software needs to serve the needs of users with disabilities as well. The system needs to have validation rules, electronic signatures, and audit trails for compliance purposes.

Social issues

The tutors' availability and comfort levels must be determined. The tutors' understanding of the e-learning material needs to be gauged. Tutors must also be required to understand the customer service, the value of e-learning, cultural values for e-learners for independent learning. The tutors' technical skills, their availability during business hours, their qualifications, knowledge, other skills, and behavioural changes also need to be evaluated.

Target e-learners

It is necessary to draw the general profile of the intended e-learner with attributes such as age, sex, educational level, reading level, ethnic background, interests, learning styles, language spoken, ease and eligibility to use computers, experience, and acceptance of e-learning. The approach to e-learning and the ability of the e-learner to measure and master the

e-learning subject, to generate knowledge, and learn new skills needs to be kept in mind.

Curriculum and syllabus

Through research on the potential and possibilities of an e-learning project at FNU, a programme in computing and information systems was selected. The current programme was developed into a programme suitable for being offered as an e-learning programme (Appendix A). The programme syllabus states the overall objectives of the programme, including that of leading to Certificate IV in IT. A detailed description ('descriptor') for one unit from the seven units of the programme is available as Appendix B.

The organisational structure of the curriculum for e-learning needs to be documented. This would include final content approval of the format, delivery, review, and maturity, and the content change mechanism through the Higher Education Academy, Economic Networks (2011).

Branding

The information on the brand can be obtained through expectations surrounding the 'look and feel', logos, colours, fonts, publications such as brochures, and websites that would appeal and attract e-learners.

Conclusion

The review process for this research smaller groups of staff of the university who have interest invested in e-Learning to facilitate and proposes structures and a syllabus for the e-learning programme. The research recommendations need to follow a rigorous review process at different functional levels of the university.

The findings from this research will be made available to decision-making offices at the university, since the plan is to establish e-learning through a pilot project within programmes at the College of Business, Hospitality, and Tourism Studies. The research focuses on neighbouring countries where McAndrew P et al., (2004) suggests the establishment of e-learning frameworks.

The proposed pilot project keeps in mind that e-learning is about delivery of content via all electronic media, including the Internet, intranets, extranets, satellite broadcast, audio and video tape, interactive TV, and CD-ROM and DVD. The pilot also bears in mind that e-learning is more narrowly defined than distance learning as Jones (2007) elaborates, which would include text-based learning and courses conducted via written correspondence, and that e-learning includes technology-based and web-based learning, as well as computer-based training, all of which are evolving to create better learning and training opportunities.

References

1. Cambell N (2001) *e-teaching, e-learning and e-education: A paper to inform the development of the ICT Strategy in New Zealand for the Ministry of Education*. Available at http://cms.steo.govt.nz/NR/rdonlyres/C11315DE-804A-4831-AB75-3D4E77393DD8/0/eteaching.htm#_Toc386771573 [accessed 28 April 2011].
2. Chew SL (2005) *Student misperceptions in the psychology classroom*. In Saville BK, Zinn TE, Hevern VW [eds] *Essays from e-excellence in teaching*. Available at <http://teachpsych.org/resources/e-books/eit2004/eit04-03.pdf> [accessed 28 April 2011].
3. Crewe E and Young J (2002) *Bridging Research and Policy: Context, Evidence and Links*. London: Overseas Development Institute. Available at <http://www.odi.org.uk/resources/download/151.pdf> [accessed 28 April 2011].
4. Davies P (2004) *Is evidence-based government possible? Jerry Lee Lecture presented at the 4th Annual Campbell Collaboration Colloquium, Washington DC, 17 February 2004*. Available at <http://www.nationalschool.gov.uk/policyhub/downloads/JerryLeeLecture1202041.pdf> [accessed 20 April 2011].
5. eLearning at the Institute (2010) Available at http://www.iceonline.cam.ac.uk/file.php/1/elearning_at_the_institute.html [accessed 01 May 2011]
6. Egyptian E-Learning University (2009) Available at <http://www.eelu.edu.eg/wps/portal> [accessed on 1 May 2011]
7. Hamline University (2011) *Information Technology Services*. Available at http://www.hamline.edu/hamline_info/offices_services/technology/index.html [accessed 26 April 2011].
8. Head B (2009) *Strengthening Evidence-based policy*. Available at http://www.pc.gov.au/__data/assets/pdf_file/0007/96208/03-chapter2.pdf [accessed 27 April].
9. Henriques J (2009) *Using Evidence-Based Teaching Methods to Improve Education*, blog 21 October 2009 <https://tle.wisc.edu/category/tags/best-practices> [accessed 28 April 2011]
10. Higher Education Academy, Economics Network (2011) *Online learning and teaching materials*. Available at <http://www.economicsnetwork.ac.uk/links/othertl.htm> [accessed 26 April 2011].
11. Jones KL (2007) *What is eLearning?* Available at <http://www.thetrainingworld.com/faq/elearndef.htm> [accessed 20 April 2011].
12. McAndrew P et al., (2004) *Determining Research Questions in e-learning*, The Open University. Available at <http://www.networkedlearning-conference.org.uk/past/nlc2004/proceedings> [accessed 27 April 2011].
13. MET e-Learning (2011) WMO e-learning website. Available at <http://www.met-e-learning.org/moodle> [accessed 26 April 2011].
14. Young E and Quinn L (2002) *A Guide for Policy Advisers in Central and Eastern Europe*. Available at http://lgi.osi.hu/publications/2002/112/writing_effective_public_policy_papers___young___quinn.pdf [accessed 27 April 2011].

Appendix A. Certificate IV in Information Technology programme (as modified from the original programme; the modified version is suitable as an eLearning programme).

eLEARNING PROGRAMME (Drafts)

CERTIFICATE IV IN INFORMATION TECHNOLOGY

New programmes

Title: Certificate IV in Information Technology (eLearning Programme)
Award: Certificate IV in Information Technology

Programme Philosophy

The programme strives to provide the teaching and learning activities that best support the overall Fiji National University's mission, and vision, of providing high quality education in the field of Information Technology, at Certificate level.

The programme is also offered in a manner that fully embraces the multiple entries and multiple exits policy of the College of Business, Hospitality and Tourism.

Background and Department to Offer

This eLearning programme will be offered by the Department of Computing Science and Information Systems. The programme was developed after extensive consultations with representatives from the industry, and after observing what other comparator institutions in Fiji and Australia and New Zealand are offering. This is an online programme, set up to provide students with a new mode of delivery, which is through electronic means (eLearning).

Rationale

As the IT Industry is developing rapidly, the number of graduates with this qualification is not keeping up with the demand.

There is a need to enroll and train students who will, upon graduation from the programme, go on to play a critical role in the industry, at this level. The industry will then continue to always have enough graduates.

This would be the first time a programme is offered via eLearning mode. The eLearning programme would enhance the students' ability to benefit from remote connectivity, and to add value to the society in Fiji and the surrounding region.

Graduate Profile

A student who has completed the Certificate in Information Technology from the National University of Fiji should be able to offer expertise and support on hardware/software use and maintenance.

The graduate should also be ready, upon completion of the programme, to advance to the Diploma in Information Technology, at the University or any other comparator place of learning.

Aims and Objectives

Aims

The aim of this programme is to train students to:

- a. Demonstrate the ability to apply knowledge of information technology.
- b. Gain knowledge of eLearning tools and software.

- c. Observe and pay attention to details and report accurately.
- d. Follow instructions carefully and accurately.
- e. Observe good work ethics.
- f. Work effectively in teams looking after computer systems.
- g. Follow standard safety procedures.

Objectives

At the completion of the programme, students should be able to:

- a. Demonstrate their ability to apply knowledge of computing and information systems;
- b. Engage with online and eLearning facilities;
- c. Analyse a problem and identify and define the computing requirements for its solution;
- d. Design and implement computer-based system, process, component or programme;
- e. Have the ability to evaluate an existing computer-based system, process, component or programme;
- f. Work effectively in teams in designing and implementing software systems;
- g. Understand key ethical issues affecting computer science and their responsibilities as computer science professionals;
- h. Demonstrate a solid understanding of the concepts used in computer science;
- i. Demonstrate an ability to use current techniques, skills and tools for computing practice;
- j. Demonstrate an ability to apply mathematical foundations, algorithmic principles, and computer science theory in the modelling and design of computer-based systems in a way that demonstrates comprehension of the trade-offs involved in design choices.

Programme Regulations

Entry Requirements

The minimum requirement for acceptance to the programme is a pass in the Fiji School Leaving Certificate examinations.

Students who have done the Foundation/Preliminary programme or comparable qualifications will also be considered. Mature age entry will also be considered provided they have three (3) years of work experience in an ICT-related field.

The Department also has the discretion of allowing candidates who may have comparable prior learning experience to enrol.

Credit Points and Value

For the purpose of clarity, it is important to note, right at the outset, the credit points associated with each unit level (see Table 1 below).

Table 1: *Credits Points Associated with Unit Levels*

| Level | Credit Points |
|-------|---------------|
| 4 | 5 |
| 5 | 5 |

Programme Configuration

The Table below provides a clear description of the programme composition in terms of core units, electives, credit points and programme structure with respect to levels.

Table 2: Programme Configuration.

| Programme | Credit Points | Units |
|--------------------------------|---------------|-------|
| Certificate (60 Credit Points) | | |
| All Core | | |
| 2 x Level 4 | 10 | 2 |
| 5 x Level 5 | 35 | 5 |
| Internship | 21 | |
| Total | 66 | 7 |

Internship

Internship which is referred as industrial attachment is compulsory for all students enrolled in Certificate IV in Information Technology for 14 weeks or 1 trimester.

Programme Duration

A full-time student will be able to complete the programme in two (2) trimesters depending on the scheduling of each component unit by the Department.

Cross Credits

Any cross crediting for Certificate Level units will be at the sole discretion of the College Dean after consultation with the Head of Department.

Assessment

Details of the assessment items and the weighting of each component are stated in each of the unit descriptor.

Programme Structure

Unit Table, Compulsory and Optional Units

The detailed structure of the programme is provided in the Table below:

Table 3. Certificate IV in Information Technology Units

| | |
|-------------------|-------------------------------------|
| Core Units | Microcomputer Application |
| | Hardware Fundamentals and Practices |
| | System Support |
| | Multimedia and Communication |
| | Database Application Development |
| | Ethics |
| | English |

Special Requirements

Overseas students, who are assessed to require additional upgrading in English, Mathematics, etc, will be required to undertake bridging units as determined by the College and Student Services.

Mode of Delivery

All units will be taught through electronic means. All unit descriptors will elaborate on the requirements of teaching and learning which requires to be adhered to.

Assessment

Assessment Philosophy

Assessments are intended to ensure that while students enhance their learning in group work, individual assessments will be undertaken to separate the 'C' graders from the 'A' graders.

The level of difficulty of each assessment item should be consistent with the level at which the unit is offered.

The basic assessment principle of setting the threshold level of difficulty to match the ability of the average student should be observed. This is to ensure that the more industrious student has sufficient space to shine.

The overall assessment should be based exclusively from the complete set of performance criteria that have actually been covered during the teaching of the unit.

The assessment plan shall be made available to students.

Assessment Methods

The assessment methods for all units are to be undertaken online.

Details of the mark allocation and weightings for each assessment are provided in each respective unit descriptor.

Criteria for Assessment

All the performance criteria listed in each of the unit descriptor should be thoroughly assessed using the best assessment vehicles and practices.

Fairness/Reliability/Validity

This issue can be addressed by ensuring full transparency with respect to marking of assessment items.

The student should have the guidelines to assessment, so that they can know very clearly how they were awarded a particular mark.

The marks allocated will be fair and staff members will be fully accountable for the allocated mark.

The level of assessment should reflect the level at which the unit teaching and learning materials were prepared and taught.

Teaching and Learning Methods

The teaching and learning techniques used should ensure the following issues, with respect to a positivistic approach towards knowledge creation:

- a. That students have access to reading materials
- b. That students are able to understand the flow of discussion from one topic to another
- c. That students are able to see problems solved by an instructor
- d. Those students will be required to make presentations on certain assigned topics

Methods

The following methods will be used to teach and fulfil the eLearning requirements of the respective units:

- a. Students will have one hour dedicated to reading and one hour of online chat, plus one hour of presentation per week for 12 weeks
- b. Each tutorial or lab group of a size of 15 students will have three hours of practical exercises per week
- c. Students will have online assignments

- d. Students will be asked to make presentations on specific topics, starting from Week 2
- e. Students will use the e-learning technology in order to view lecture slides and tutorial hand-outs
- f. Students are also required to spend seven hours of independent study to obtain five credits from a total of 150 hours per unit.

Unit Descriptor

Each individual unit will have its own unit descriptor. All the requirements for each unit are provided in the unit descriptors. Please refer to each individual and detailed unit descriptor.

Appendix B: Course descriptor for one of the programme's seven units.

MICROCOMPUTER APPLICATION (Draft)

CODE: CIN410 **TRIMESTER 1, 2012**
NAME: Microcomputer Application
LEVEL: 4
CREDITS: 5

LEARNING HOURS

CLASS CONTACT (ONLINE): 72
SELF-DIRECTED LEARNING: 78
TOTAL HOURS: 150

PRE-REQUISITE: Pass in Form 6/Year 12
CO-REQUISITES:

AIM OF THE UNIT:

This Unit is recommended for all computer users that need to know how to use microcomputers. The major emphasis will be on using microcomputers with the most popular kinds of computer application software used in business and education today including power point, word processing, spreadsheets and database management. This unit descriptor has been especially developed to offer the programme through an eLearning set-up.

LEARNING OUTCOMES

Upon completion of this course, students should be able to:

- Use the word processing features to format text and produce business documents.
- Use functions available in spreadsheets to solve business problems.
- Enable students to create simple Database objects such as tables, queries, forms and reports
- Enable students to use Microsoft Presentation Software as a tool to do presentations
- Enable students to use the Internet to communicate (e-mail) and find information (search).

TOPIC 1: WORD PROCESSING

Use the word processing features to format text and produce business documents.

Performance Criteria

- 1.1. Start and quit MS Word
- 1.2. Describe the Word window
- 1.3. Enter text into a document
- 1.4. Check spelling as you type
- 1.5. Save a document
- 1.6. Format text, paragraphs and document elements
- 1.7. Undo and redo commands or actions
- 1.8. Insert a picture and format it
- 1.9. Change document properties
- 1.10. Open a document
- 1.11. Correct errors in a document
- 1.12. Use Word's Help feature

TOPIC 2: SPREADSHEET

Use functions available in spreadsheets to solve business problems.

Performance Criteria

- 2.1. Start and quit Excel
- 2.2. Describe the Excel worksheet
- 2.3. Enter text and numbers
- 2.4. Use the Sum button to sum a range of cells
- 2.5. Copy the contents of a cell to a range of cells using the fill handle
- 2.6. Save a workbook
- 2.7. Format cells in a worksheet
- 2.8. Create a column chart
- 2.9. Save a workbook using the same file name
- 2.10. Enter formulas using the keyboard and Point mode
- 2.11. Apply the AVERAGE, MAX, and MIN functions
- 2.12. Change column width of a and row height
- 2.13. Rename sheets in a workbook
- 2.14. Copy, paste, insert, and delete cells
- 2.15. Use Excel's Help feature

TOPIC 3: DATABASE

Enable students to create simple Database objects such as tables, queries, forms and reports.

Performance Criteria

- 3.1. Start using sample Database (Nothwind DB in Access)
- 3.2. Start Database application
- 3.3. Create a simple database
- 3.4. Create a table and add records
- 3.5. Close a table
- 3.6. Open/Close a database
- 3.7. Create and use a form
- 3.8. Create queries using the Simple Query Wizard

- 3.9. Create queries using Design view
- 3.10. Include fields in the design grid
- 3.11. Save a query and use the saved query
- 3.12. Create a report from a query
- 3.13. Use Database Help feature

TOPIC 4: PRESENTATION

Enable students to use Microsoft Presentation Software as a tool to do presentations

Performance Criteria

- 4.1. Getting Started with PowerPoint
- 4.2. Your first PowerPoint Presentation
- 4.3. Insert a New Slide into PowerPoint
- 4.4. Change the Title of a PowerPoint Slide
- 4.5. PowerPoint Bullets
- 4.6. Add an Image to a PowerPoint Slide
- 4.7. Add a Textbox to a PowerPoint Slide
- 4.8. The Slide Show footer in PowerPoint
- 4.9. Add Notes a PowerPoint Presentation
- 4.10. Complete your first PowerPoint Presentation
- 4.11. Set up a Master Slide in PowerPoint
- 4.12. Format a PowerPoint Master Slide
- 4.13. Plan your PowerPoint Presentations
- 4.14. Adding the animated GIF images
- 4.15. Resize an Image in PowerPoint
- 4.16. Slide Transitions in PowerPoint
- 4.17. Use Presentation software's Help feature

TOPIC 5: COMMUNICATION (e-mail); SEARCHING FOR INFORMATION (browsing)

Enable student should be able to use the Internet to communicate (e-mail) and find information (search).

Performance Criteria

- 5.1. How to connect to the Internet using a web browser
- 5.2. Identify parts of the Browser screen
- 5.3. Set up an e-mail account
- 5.4. Use an e-mail account
- 5.5. Perform a search
- 5.6. Navigate the World Wide Web to find the information one is seeking

TEACHING AND LEARNING STRATEGIES (ONLINE LECTURES AND EXERCISES)

Students are advised to read in advance the topics that will be covered. Students are to have minimum of three hours of lab per week with an online tutor, one hour of online chat, one hour of student presentation, and one hour of dedicated reading, with total of six hours per week.

This unit has 72 hours covered in 14 weeks in one trimester, with students expected to spend a minimum of seven hours per week on their own to make a five-credit point unit.

At this level students are expected to:

- Work independently to complete readings
- Work co-operatively and participate in online chat
- Participate in online work
- Use their skills to look for information and solve problems during online exams and assignments

TEACHING AND LEARNING RESOURCES

Texts: **MS Office 2010 (latest package available)**
By Timothy J. O'Leary & Linda I. O'Leary

ASSESSMENTS

Weighting 100% Continuous Assessment

ONLINE TEST:

- MS Word 12%
- MS Excel 15%
- MS Access 18%
- Presentation 15%

PRACTICAL ASSIGNMENT:

- MS Word 8% Assignment 1
- MS Excel 12% Assignment 2
- MS Access 12% Assignment 3
- Presentation 8% Assignment 4

Total 100%

Timetable - trimester Plan:

| | | | |
|---------|-----------------|-------------------|-------------------------------|
| Week 1 | Word Processing | MS Word | |
| Week 2 | Word Processing | MS Word | |
| Week 3 | Word Processing | MS Word | Word Practical |
| Week 4 | Spreadsheet | MS Excel | |
| Week 5 | Spreadsheet | MS Excel | |
| Week 6 | Spreadsheet | MS Excel | Excel Practical |
| Week 7 | Database | MS Access | |
| Week 8 | Database | MS Access | |
| Week 9 | Database | MS Access | Access Practical |
| Week 10 | Presentation | Ms Power Point | |
| Week 11 | Presentation | Ms Power Point | Presentation – online session |
| Week 12 | Web browser | Internet Explorer | |