

THE UNIVERSITY OF THE WEST INDIES

**Meeting of the UWIDEC Academic Programme Committee
to be held on Friday, May 5, 2006
at the St Augustine Hill Campus**

UWIDEC plans for postgraduate programmes

The document below is a draft of a proposal to the OAS for the funding of development and delivery of a suite of postgraduate and continuing professional education programmes. The model outlined in this proposal represents the one adopted by UWIDEC for future development of programmes at both undergraduate and postgraduate levels.

**The flexible development and delivery of a suite of postgraduate and
continuing professional education programmes to build human resource
capacity throughout the Anglophone Caribbean**

Project Proposal to the Organisation of American States (OAS)

By The University of the West Indies Distance Education Centre (UWIDEC)

1. **Project Name:** The flexible development and delivery of a suite of postgraduate and continuing professional education programmes to build human resource capacity throughout the Anglophone Caribbean.
2. **Country submitting the project:** Barbados
3. **Other participating countries:** Anguilla, Antigua & Barbuda, the Bahamas, Belize, British Virgin Islands, Cayman Islands, Dominica, Grenada, Jamaica, Montserrat, Republic of Trinidad & Tobago, St. Kitts & Nevis, St. Lucia and St. Vincent & the Grenadines, Barbados, Jamaica and Republic of Trinidad & Tobago will participate in the course development process. All countries will participate in the delivery of the courses.
4. **Priority Areas:**
 - 4.1 ***Economic Diversification and Integration, Trade Liberalization and Market Access:***
 - Enhancement of competitiveness of Caribbean businesses;
 - Capacity building in the marketing of the Caribbean tourism product;
 - Enhancement of the private sector's use of Information and Communication Technologies (ICT);
 - Preparation of the private and public sectors for the implementation of Free Trade Area of the Americas (FTAA);

4.2 Social Development and Creation of Productive Employment:

- Small Business Development;
- Strengthening of the labor market;
- Retraining and employment of displaced workers;

4.3 Scientific Development and Exchange and Transfer of Technology:

- Institutional and human capacity building in ICT, computer services and computer programming;
- Strengthening of e-government capabilities;

4.4 Education:

- Use of information and communication technology (ICT) in schools;
- Increase the number of teachers trained to teach science and technology;
- Teacher training: Improve teaching of Mathematics and English Language;
- Increase access to higher and special education;
- Strengthen continuing education programs.

5. Execution Period: 24 months

6. Objectives, activities and expected results of the project:

6.1 General and specific objectives of the project:

The **general objective** of the project is to build human resource capacity throughout the Anglophone Caribbean.

The **specific objectives** are to develop a suite of postgraduate and continuing professional education programmes in Business, ICT, e-Government, Tourism and Teacher Education that are:

- Economically designed, e.g., using the same course for several programmes;
- Relevant to the needs of students, employers and society;
- Flexible, in respect of:
 - Time - students can enrol and study at anytime;
 - Place - students can enrol and study anywhere;
 - Mode - anywhere on the continuum from face-to-face to totally online;
 - Product – programmes “tailor-made” and created quickly;
- Scalable, i.e., enable us to move from offering a course to 30 people to offering it to 3000 people;
- Collaboratively created and delivered - forging strategic partnerships and collaborations with others, both within and outside UWI, to maximise our teaching outputs and scalability;
- Quality assured - products and processes based on best practice and research.

6.2 Target Group

The course is aimed at interested and appropriate Caribbean professionals who, for whatever reason, are unable to undertake their graduate education at the campuses of UWI.

6.3 Expected impact of the project

Increased access to postgraduate and continuing professional education, especially for those who are unable to undertake their graduate education at the campuses of UWI.

6.4 Main activities to be carried out to meet the objectives

In planning for implementation, UWIDEC is acutely sensitive to the fact that, although the use of the ICT is widespread, the distribution of this resource is very uneven (ITU, 2004). Consequently access and ease of use among potential students cannot be taken for granted. Also to be considered is the fact that the more collaborative approach to teaching and learning that is possible in the web-based environment is vastly different from the conventional top-down method that both potential tutors and students are accustomed to. Bearing these points in mind, the following activities are proposed:

- Coordination and administration of the project;
- Establishment of administrative support structures:
 - Set up registrarial systems;
 - Set up financial systems;
- Design of the matrix of programmes:
 - Examine existing programmes and courses to determine suitability for matrix;
 - Design programme matrix comprising thirty-six (36) postgraduate courses;
- Preparation of course materials and teaching-learning systems:
 - Review and adapt as appropriate already-developed course material;
 - Identify relevant literature (Caribbean and otherwise) for inclusion in the revised material and/or for building e-resources to support the course material;
 - Produce the course content in an appropriate downloadable format;
 - Using an open source learning management system (LMS), build the online course environment to facilitate the range of online learning experiences;
- Establishment of student support structures:
 - Develop criteria for the selection of online tutors/moderators;
 - Select online tutors/moderators;
 - Review/revise and implement in-house training programme for online tutors/moderators;
 - Organise training for e-tutors;
 - Review/revise and implement in-house training programme to assist students to build skills for online learning;
- Promotion and publicity:
 - Develop and disseminate promotional materials both to potential students as well as to relevant organizations;
 - Develop and publish to the WWW a website;
- Preparation and management of technological infrastructure:
 - Provide computer, software and Internet access at UWIDEC Centres throughout the Caribbean;
- Provision of support for course delivery:
 - Employ Course Coordinators as content experts for delivery;
 - Employ online tutors/moderators;
- Pilot the delivery of the courses/programmes to a cohort of students;
- Evaluation of courses delivered to pilot cohort.

6.5 The expected results

The project would result in “matrix” of course modules (courses, parts of courses, modules and learning objects) from which it would be possible to generate a wide range of postgraduate and continuing professional education programmes, in a more economical way (see Appendix 1 for an example). The “modular matrix” approach to programme development, shown in Figure 1, is one that views a programme as comprising courses or parts of courses selected from a database or matrix of courses, modules and other learning objects.

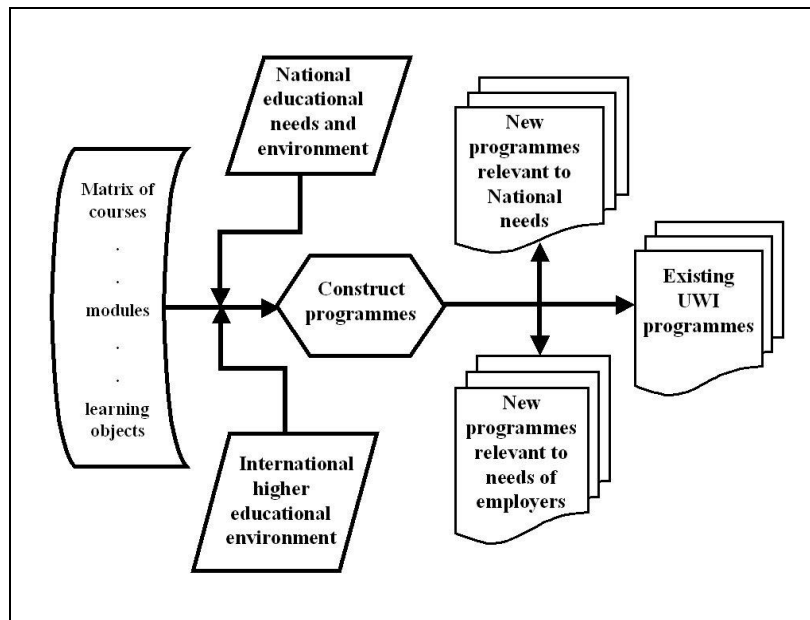


Figure 1: A flexible modular matrix system to create programmes

From such a matrix, it is possible to rapidly construct programmes in response to the changing HE environment, including:

- The existing UWI postgraduate and continuing professional education programmes;
- Postgraduate and continuing professional education programmes relevant to National needs;
- Professional education programmes relevant to employers needs;
- Postgraduate programmes relevant to the needs of students in the information society; and,
- Whatever other postgraduate and continuing professional education programmes are required in the constantly changing HE environment.

Central to the success of the project is the paradigm shift from a teacher-dependent, discipline-focused, and institutionally-driven model of learning to a resource-based, problem-based, and learner-driven model (see Appendix 2).

7. Project Justification:

7.1 The problem

The small in-country enrolments together with the lack of suitably qualified in-country lecturers means that the traditional face-to-face delivery mode found on the three campuses of The University of West Indies (UWI) is not possible/viable as a teaching modality for the Caribbean countries that do not have campuses.

Distance education is now a priority for many developing countries (Chandra, 2000; Gomez, 1999; Perez, 1997). It is seen by some "as a means by which developing nations can 'leapfrog' some stages in the development of their educational infrastructure by importing courses (and sometimes adapting them) for use locally" (Evans, 1995a, pp.312-313). The globalisation of knowledge and educational products and services means that all

countries can, in principle, be both providers and consumers. However, given the existence of greater production capacity, powerful alliances, and high volume markets, it seems more likely that larger developed countries (and to some extent, larger developing countries) rather than small developing countries will become the major producers of distance education products and services. This can pose an economic, political and cultural threat to small developing countries and small states (UWIDEC, 2000, p.6). Small state economies such as those of the Caribbean find it difficult to respond because their inability to access economies of scale make "the creation and delivery of distance material constitute a substantial investment, which is difficult to quantify and equally difficult to recoup" (Morgan, 2000, p.107). There are those who fear that globalised open and distance education will amount to cultural importation/invasion/imperialism (Evans, 1995a; 1995b).

The new ICTs make possible new learning environments, which include: the Internet (facilitating synchronous and asynchronous interactions between learners); digital libraries (as knowledge repositories); computer simulation (substitutes for laboratories); and many others (Asensio, et al, 2000; Devi, 2001; Discenza, et al, 2002; Jegede, 2000; McAlpine, 2000; Ruth, 2002). Overall, these new technologies create a learning environment in which learners, tutors and learning resources can all be networked. But these same ICT possibilities also permit new working environments for those responsible for the facilitation of learning (Marshall and Gregor, 2002).

7.2 Meeting the development objectives of the region

This project proposal outlines an alternative approach to both programme development and course delivery that utilizes new information and communication technologies. It outlines a flexible "modular matrix" approach to programme development and a flexible, "blended learning" approach to course delivery. Both of these approaches have been adopted by The University of the West Indies Distance Education Centre (UWIDEC), as part of its recent paradigm shift to a development/delivery model with an emphasis on asynchronous teaching/learning modalities and resource-based teaching/learning. This approach will enable the flexible development and delivery of a suite of postgraduate and continuing professional education programmes designed to build human resource capacity throughout the Anglophone Caribbean.

7.3 Other projects in this field in the region

There are clear synergies between the proposed project and two other regional projects: Caribbean Knowledge Learning Network (CKLN) and the Caribbean Universities Project Integrated Distance Education (CUPIDE).

8. Executing Institution:

8.1 The Executing Agency:

The University of the West Indies Distance Education Centre (UWIDEC)
The University of the West Indies, Cave Hill Campus, St Michael, Barbados

8.2 Project Director:

Professor Stewart Marshall
Director, UWIDEC
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8.3 Details of UWIDEC

The University of the West Indies Distance Education Centre (UWIDEC) was established in 1997 with the mandate to manage the development and delivery of the university's distance programmes. Since its inception, UWIDEC has employed a mix of media for course delivery (Kuboni et al, 2002), and is committed to the further development of blended learning, with an increasing emphasis on the use of asynchronous technologies. In this regard, UWIDEC has embarked on a major initiative to introduce web-based technologies into its delivery mix and has re-engineered its structures and processes to effect this shift by the end of 2006.

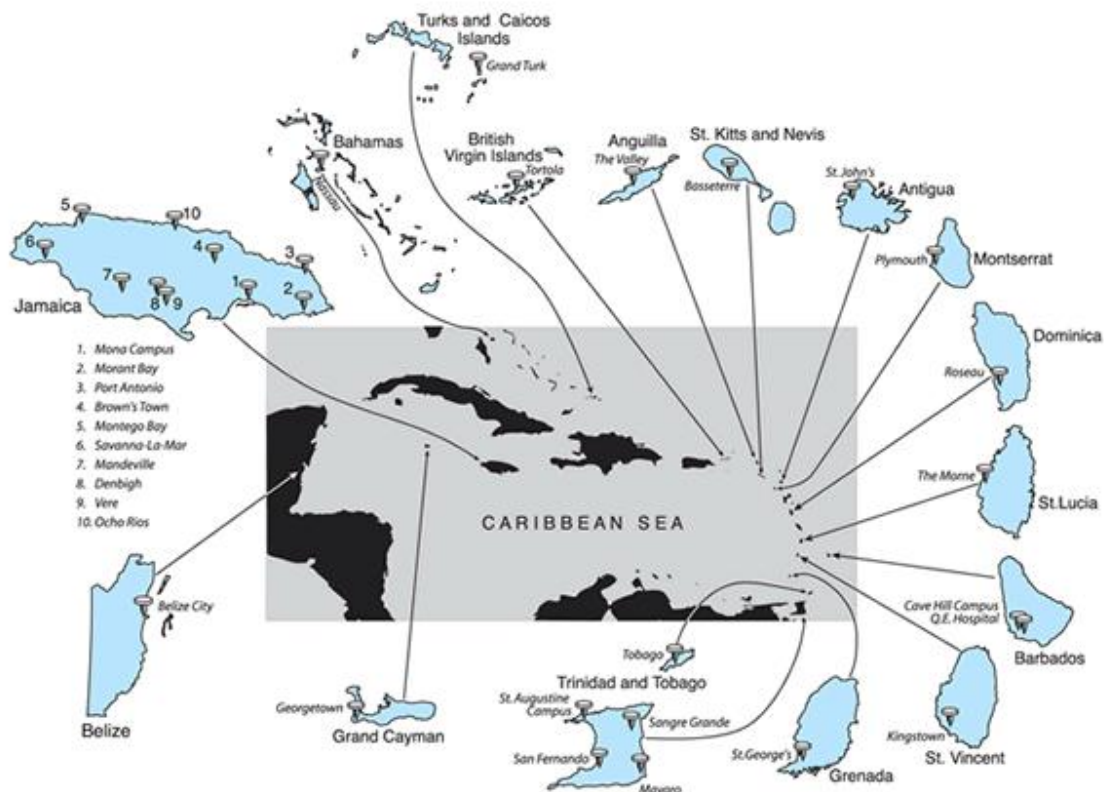


Figure 4: UWIDEC's 30 sites/centres throughout the Caribbean region

In order to support the study of some 3000 students in 30 sites/centers throughout the Caribbean region, UWIDEC has built up a very strong multi-dimensional, yet integrated organizational structure, comprising:

- A strong management team that oversees all aspects of its operation;
- Course materials development team, with capabilities in the design and development of teaching-learning experiences using various media;
- Student support structures, providing academic, administrative and socio-psychological support;
- Programme delivery unit, which coordinates and manages the delivery activities;
- Telecommunications unit, to maintain UWIDEC's Wide Area Network (WAN), as well as the end-user facilities at the local sites;

- Research Unit, which is responsible for conducting evaluation of UWIDEC products and processes.

9. Cost Estimate:

Item	Cost (US\$)	
	UWI	OAS
Phase 1		
1.1 Project coordination, administration and contingency: 16 weeks of lecturer salary @ US\$30,000/annum Administration & contingency costs	10000 20000	
1.2 Establishment of administrative support structures: Set up registrarial systems - 4 weeks of lecturer salary @ US\$30,000/annum Set up financial systems - 4 weeks of lecturer salary @ US\$30,000/annum	2500 2500	
1.3 Design programme matrix: Examine existing programmes and courses to determine suitability for matrix - 8 weeks of lecturer salary @ US\$30,000/annum Design programme matrix - 8 weeks of lecturer salary @ US\$30,000/annum	5000 5000	
Subtotal Phase 1	45000	0
Phase 2		
2.1 Project coordination, administration and contingency: 16 weeks of lecturer salary @ US\$30,000/annum Administration & contingency costs	10000 20000	
2.2 Preparation of course learning environment: Review and adapt material; Identify relevant literature; Produce course content; Build online course - 16 weeks of lecturer salary @ US\$30,000/annum/course x 12 courses		120,000
2.3 Establishment of student support structures: Review/revise training for staff & students; 4 weeks of lecturer salary @ US\$30,000/annum Costs of training (travel and subsistence) for 2-day course for 12 e-tutors	2500	10,000
2.4 Promotion and publicity: 4 weeks of lecturer salary @ US\$30,000/annum Cost of printing and distributing promotional material		2,500 10,000
2.5 Preparation and maintenance of technological infrastructure: 8 weeks of lecturer salary @ US\$30,000/annum Equipment/Software/Centre maintenance	5000 10000	
2.6 Delivery of courses in pilot: Course delivery coordination @ US\$1720 per course E-tutoring @ US\$1280 per course (assuming 20 students per course)	17200 12800	
2.7 Evaluation of courses to delivered pilot cohort: 4 weeks of lecturer salary @ US\$30,000/annum	2500	
Subtotal Phase 2	80000	142500

9. Cost Estimate (continued):

Item	Cost (US\$)	
	UWI	OAS
Phase 3		
3.1 Project coordination, administration and contingency: 16 weeks of lecturer salary @ US\$30,000/annum Administration & contingency costs	10000 20000	
3.2 Preparation of course learning environment: Review and adapt material; Identify relevant literature; Produce course content; Build online course - 16 weeks of lecturer salary @ US\$30,000/annum/course x 12 courses		120,000
3.3 Establishment of student support structures: Costs of training (travel and subsistence) for 2-day course for 12 e-tutors		10,000
3.4 Maintenance of technological infrastructure: 8 weeks of lecturer salary @ US\$30,000/annum Equipment/Software/Centre maintenance	5000 10000	
3.5 Delivery of courses in pilot: Course delivery coordination @ US\$1720 per course E-tutoring @ US\$1280 per course (assuming 20 students per course)	17200 12800	
3.6 Evaluation of courses delivered to pilot cohort: 4 weeks of lecturer salary @ US\$30,000/annum	2500	
Subtotal Phase 3	77500	130000
Phase 4		
4.1 Project coordination, administration and contingency: 16 weeks of lecturer salary @ US\$30,000/annum Administration & contingency costs	10000 20000	
4.2 Preparation of course learning environment: Review and adapt material; Identify relevant literature; Produce course content; Build online course - 16 weeks of lecturer salary @ US\$30,000/annum/course x 12 courses		120,000
4.3 Establishment of student support structures: Costs of training (travel and subsistence) for 2-day course for 12 e-tutors		10,000
4.4 Maintenance of technological infrastructure: 8 weeks of lecturer salary @ US\$30,000/annum Equipment/Software/Centre maintenance	5000 10000	
4.5 Delivery of courses in pilot: Course delivery coordination @ US\$1720 per course E-tutoring @ US\$1280 per course (assuming 20 students per course)	17200 12800	
4.6 Evaluation of courses delivered to pilot cohort: 4 weeks of lecturer salary @ US\$30,000/annum	2500	
Subtotal Phase 4	77500	130000
Grand Total (all phases)	280000	402500

10. Project timeline

Task	Month																							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1.1; 2.1; 3.1; 4.1 Coordination & administration	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█
2.5; 3.4; 4.4 Technological infrastructure	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█
Phase 1	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█
1.2 Establishment of administrative support:																								
Set up registrarial and financial systems	█																							
1.3 Design programme matrix:	█	█																						
Phase 2	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█
2.2 Preparation of course learning environment:																								
Produce course content; Build online course		█	█																					
2.3 Establishment of student support structures:																								
Review/revise training for staff & students;	█	█																						
Training workshop: 2-day course for 12 e-tutors				█																				
2.4 Promotion and publicity:																								
Printing and distributing promotional material		█	█																					
2.6 Delivery of courses in pilot					█	█	█	█																
2.7 Evaluation of courses delivered									█															
Phase 3	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█
3.2 Preparation of course learning environment:																								
Produce course content; Build online course							█	█																
3.3 Establishment of student support structures:																								
Training workshop: 2-day course for 12 e-tutors									█															
3.5 Delivery of courses in pilot										█	█	█	█											
3.6 Evaluation of courses delivered to pilot cohort													█											
Phase 4	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█
4.2 Preparation of course learning environment:																								
Produce course content; Build online course																	█	█						
4.3 Establishment of student support structures:																								
Training workshop: 2-day course for 12 e-tutors																			█					
4.5 Delivery of courses in pilot																				█	█	█	█	
4.6 Evaluation of courses delivered to pilot cohort																								█

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APPENDIX 1

An example of “modular matrix” programme development

As an example of this system in action, from the thirty-four (34) postgraduate courses shown in Table 1, it is possible to devise at least seven (7) Masters programmes as shown in Table 2. Note that these courses and programmes are based on those of an Australian university. Given that the Masters programmes have twelve (12) courses each, individual Masters programmes in these areas would require 7 x 12 course = 84 courses, clearly a dramatic saving in course development costs, but also a saving in delivery costs as enrolments in courses would comprise students drawn from several programmes. Table 3 shows the same information in matrix form. By taking four (4) courses in each programme to constitute the corresponding postgraduate certificate, and a further four (4) courses to constitute the corresponding postgraduate diploma, this same matrix can also generate seven (7) postgraduate certificate and seven (7) postgraduate diploma programmes.

NOTE: it is not intended to use these courses and programmes in this project – they would be replaced by UWI approved courses and programmes.

Table 1: Typical set of thirty-four postgraduate courses from an Australian university

Accounting for Managers	Cultural Tourism	e-Finance and Banking	Information Security for Managers	Internet and Electronic Marketing	Market Research
Business in the International Economy	Database Design	Emerging Information Technologies	Information Systems Decision Support	Introduction to Tourism	Principles of Information Security
Business Systems Planning and Implementation	e-Business Design and Implementation	Tourism Planning	Information Systems for Managers	Java Programming	Service Product Marketing
Consumer and Organisational Buyer Behaviour	e-Commerce Law	Export Management and Market Entry Strategies	Integrated Marketing Communications	Knowledge Management	Systems Analysis and Design
Corporate Finance	Corporate Information Management	Global Information Systems Strategy	International Business Law	Management & Organisational Behaviour	Strategy Development and Initiatives
	Ecotourism	Global Marketing	International Marketing and Management	Systems Planning and Management	

Table 2: Masters programmes (curriculum based on an Australian university)

M International Business	MIS	MIT	MBA	M e-Business	M Marketing Management	M Tourism Management
Corporate Finance	Systems Analysis and Design	Systems Analysis and Design	Accounting for Managers	Business Systems Planning and Implementation	Global Marketing	Introduction to Tourism
International Business Law	Information Systems Decision Support	Information Systems Decision Support	Information Systems Decision Support	e-Commerce Law	Market Research	Market Research
Management and Organisational Behaviour	e-Business Design and Implementation	e-Business Design and Implementation	Management and Organisational Behaviour	e-Business Design and Implementation	Consumer and Organisational Buyer Behaviour	Tourism Planning
Business in the International Economy	Principles of Information Security	Principles of Information Security	Information Systems for Managers	Information Systems for Managers	Integrated Marketing Communication	Ecotourism
Export Management and Market Entry Strategies	Systems Planning and Management	Systems Planning and Management	International Business Law	Internet and Electronic Marketing	Internet and Electronic Marketing	Cultural Tourism
International Marketing and Management	Business Systems Planning and Implementation	Business Systems Planning and Implementation	International Marketing and Management	International Marketing and Management	International Marketing and Management	International Marketing and Management
Strategy Development and Initiatives	Information Security for Managers	Information Security for Managers	Business in the International Economy	Information Security for Managers	Service Product Marketing	Accounting for Managers
Relevant elective from matrix	Knowledge Management	Database Design	Strategy Development and Initiatives	Knowledge Management	Strategy Development and Initiatives	Relevant elective from matrix
Relevant elective from matrix	Corporate Information Management	Emerging Information Technologies	Relevant elective from matrix	Corporate Information Management	Relevant elective from matrix	Relevant elective from matrix
Relevant elective from matrix	Global Information Systems Strategy	Global Information Systems Strategy	Relevant elective from matrix	Global Information Systems Strategy	Relevant elective from matrix	Relevant elective from matrix
Relevant elective from matrix	Relevant elective from matrix	Java Programming	Relevant elective from matrix	e-Finance and Banking	Relevant elective from matrix	Relevant elective from matrix
Relevant elective from matrix	Relevant elective from matrix	Relevant elective from matrix	Relevant elective from matrix	Relevant elective from matrix	Relevant elective from matrix	Relevant elective from matrix

Table 3: Matrix of courses and Masters programmes

Course	Masters Programme						
	Internat'l Business	IS	IT	Bus Admin	e-Business	Marketing Manag't	Tourism Manag't
Accounting for Managers				√			√
Business in the International Economy	√			√			
Business Systems Planning and Implementation		√	√		√		
Consumer and Organisational Buyer Behaviour						√	
Corporate Finance	√						
Corporate Information Management		√			√		
Cultural Tourism							√
Database Design			√				
e-Business Design and Implementation		√	√		√		
e-Commerce Law					√		
Ecotourism							√
e-Finance and Banking					√		
Emerging Information Technologies			√				
Export Management and Market Entry Strategies	√						
Global Information Systems Strategy		√	√		√		
Global Marketing						√	
Information Security for Managers		√	√		√		
Information Systems Decision Support		√	√	√			
Information Systems for Managers				√	√		
Integrated Marketing Communications						√	
International Business Law	√			√			
International Marketing and Management	√			√	√	√	√
Internet and Electronic Marketing					√	√	
Introduction to Tourism							√
Java Programming			√				
Knowledge Management		√			√		
Management and Organisational Behaviour	√			√			
Market Research						√	√
Principles of Information Security		√	√				
Service Product Marketing						√	
Strategy Development and Initiatives	√			√		√	
Systems Analysis and Design		√	√				
Systems Planning and Management		√	√				
Tourism Planning							√
Number of additional relevant electives from matrix	5	2	1	4	1	4	5

APPENDIX 2

Resource-based teaching/learning

For UWIDEC to effectively use ICT to facilitate postgraduate learning in the Caribbean, there needs to be a paradigm shift from the teacher-dependent, discipline-focused, and institutionally-driven model we see in Figure 2, to a resource-based, problem-based, and learner-driven model as shown in Figure 3.

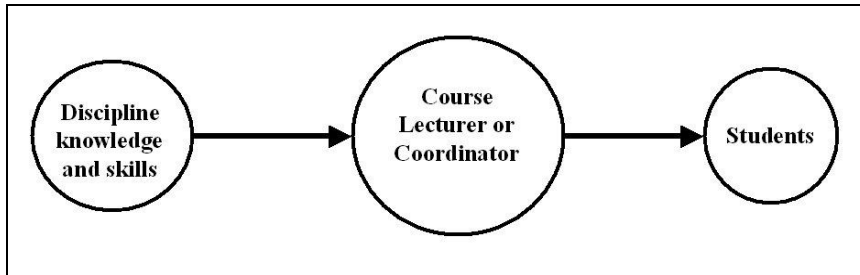


Figure 2: Traditional teaching model

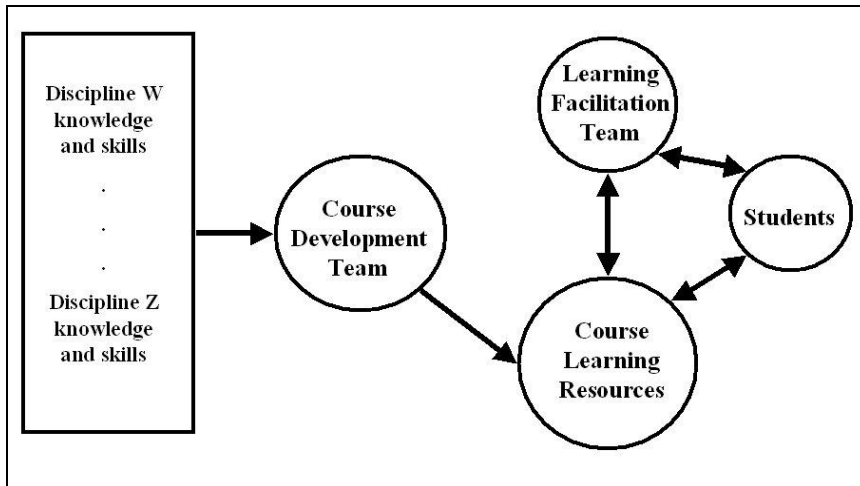


Figure 3: Resource-based learning paradigm for teaching

In this model, local learning facilitation can be provided by e-tutors and/or local face-to-face tutors who are not UWI lecturers, but instead are staff members of in-country Tertiary Level Institutions. The Learning Facilitation Team would be coordinated by the UWI lecturer as discipline expert and Course Co-ordinator (as is currently the case in UWIDEC). This model is already used to good effect by many of the external (foreign) providers offering programmes in the Caribbean, taught to some extent through local state educational institutions or through private, locally owned institutions (Brandon, 2003).