Item: AS: A-3

COMMITTEE ON ACADEMIC AND STUDENT AFFAIRS
Wednesday, April 15, 2009

SUBJECT: **APPROVAL OF NEW MASTER OF SCIENCE DEGREE**

PROPOSED COMMITTEE ACTION
Approval of new Master of Science Degree in Information Technology and Management, Advanced Information Technology (11.0101) - College of Engineering

BACKGROUND INFORMATION
The Master of Science Degree in Information Technology and Management, Advanced Information Technology (11.0101) is an innovative master's level program to be offered by the Department of Computer Science and Engineering in the College of Engineering and Computer Science. It designed to prepare students for employment as computer and information systems managers. As the economy becomes more global and competitive, companies are increasingly relying on information technology to be more productive and efficient. During the last few years, enrollment in undergraduate programs in this area has declined while enrollment in master level programs has been relatively steady. This new program will allow us to retain many of our baccalaureate graduates who have moved on to graduate programs offered by other universities in our area. Over time, we believe this program will attract more students who are not FAU graduates but are employed by companies and organizations in the tri-county area.

This is a 33 credit master degree program with courses offered jointly by the Department of Computer Science and Engineering in the College of Engineering and the Department of Information Technology and Operations Management in the Barry Kaye College of Business. Students interested in following the Advanced Information Technology degree program will successfully complete seven courses offered by the Department of Computer Science and Engineering and three courses offered by the Department of Information Technology and Operations Management, and be awarded a Master of Science degree from the College of Engineering. All students will successfully complete Graduate Business Communication Applications (GEB 6215).

Fall 2009

FISCAL IMPLICATIONS

The fiscal impact of this program is negligible. The proposed program will take full advantage of existing graduate course offerings, as well as innovations in the delivery and scheduling of courses in two departments. There are no new faculty, facilities, or additional resources required.

Supporting Documentation: **Executive Summary of Program Details**

Presented by: Dean Karl Stevens, College of Engineering **Phone: 561-297-3426**

Jointly Offered by

Department of Information Technology & Operations Management
Barry Kaye College of Business
and
Department of Computer Science and Engineering
College of Engineering

Executive Summary

1. Impetus for the Program

As the economy continues to become more global and competitive, companies large and small are increasingly relying on information technology to be more productive and to improve efficiency. Highly competent IT professionals who can create, maintain, and manage information technology resources and infrastructures are essential to sustain this economic evolution.

The following table shows the national employment projection for "computer and information systems managers" (11-3021) from 2004 to 2014. This government employment matrix code captures the projected career paths for those students who would graduate from the proposed program.

Employment Matrix Code	Employment		Employment Change 2002-14		Median Annual Earnings
	2004	2014	Number	Percent	
11-3021	280,000	353,000	73,000	25.9%	$92,570

The following table shows the *existing employment* as of May 2005, the most recent data available from the website, for local metropolitan areas and select other areas in Florida provided for comparison purposes. *Employment projections* for metropolitan areas are not available from the website.

Employment Matrix Code	Metropolitan Area	Number of Jobs	Annual Mean Wage
11-3021	WPB - Boca Raton – Boynton Beach	660	$113,020
11-3021	Ft. Lauderdale - Pompano - Deerfield	910	$96,530
11-3021	Port St. Lucie - Ft. Pierce	80	$98,220
	FAU Service Area	**1650**	**$102,590**
11-3021	Orlando – Kissimmee	980	$94,710
11-3021	Tampa - St. Petersburg - Clearwater	1380	$91,580
11-3021	Miami - Miami Beach - Kendall	1120	$94,410

These data support the assertion that there is a market for the proposed program. Moreover, the inter-disciplinary nature of the program and more recent trends may well tap a larger market than these numbers would suggest. It is our belief (based on inquiries from local companies for our graduates) that more recent trends, for which Bureau of Labor statistics are unable available, are in the direction of growth.

One likely pool of students includes the undergraduates of the programs offered by our respective departments. The following table contains the number of undergraduate students majoring in Management Information Systems and Computer Science undergraduate majors for the past several years who could be eligible to apply.

Majors	2000*	2001*	2002*	2003*	2004*	2005*	2006*	2007*	2008*
Management Information Systems	646	699	548	444	343	276	215	192	176
Computer Science	579	659	589	499	393	309	261	274	290

* Majors as of the fall of the year.

The numbers in the table also show a declining trend of undergraduate enrollment in both programs, although the enrollment has stabilized in recent years. While undergraduate enrollment in both MIS and CS has come down from its peak in 2000-2001, mostly due to outsourcing of low level IT jobs to off-shore locations, we believe the demand for graduate level education in these two fields should steadily increase over the next decade as the demand for mid- to top- level IT professional positions increases.

2. Proposed Program Description

o The proposed program will be an innovative master's level program jointly offered by two departments of Florida Atlantic University with two concentrations: Information Technology Management track and Advanced Information Technology track.

o The Information Technology Management track will be supported primarily by the Department of Information Technology & Operations Management (ITOM) in the Barry Kaye College of Business (seven courses) and secondarily by the Computer Science and Engineering (CSE) Department in the College of Engineering and Computer Science (three courses) at Florida Atlantic University.

o The Advanced Information Technology track will be supported primarily by the Computer Science and Engineering (CSE) Department in the College of Engineering and Computer Science (seven courses) and secondarily by the Department of Information Technology & Operations Management (ITOM) in the Barry Kaye College of Business (three courses) at Florida Atlantic University.

o Both tracks require that students pass GEB 6215 (Graduate Business Communication Applications) offered by the Barry Kaye College of Business.

o The proposed program will be a 33 credit program, 11 courses total. Students can complete the program in 18 mos. if they take 3 courses in fall and spring semesters and 2 courses in summer.

3. **Correlation of Program with Strategic Plans/Goals of FAU**

    The proposed program is listed in the current University Strategic Plan. FAU's Strategic Plan includes seven goals. Goal 2 is to meet statewide professional and workforce needs. More specifically FAU is committed to expend the academic and fiscal resources to train professionals in "nursing, teaching and advanced technology". The proposed MS in Information Technology and Management is consistent with this goal.

4. **Special Features of the Program**

    The proposed new program is a cross-disciplinary program that pools the resources and knowledge from two academic departments within the university. It would be difficult for either department to offer the complete program alone. Collaboration between the two departments will allow the new program to be implemented without requiring new faculty, new facilities, or other addition resources. Yet, it covers a significant professional market – graduate programs in Information Technology and Management – in the service area of Florida Atlantic University.

    At this moment, the majority of the planned courses are to be offered in traditional channels, including classrooms, computer labs, and video conference rooms. A few courses will be offered online. As the program develops and matures, new channels of delivery will be explored to take advantage of information technology.

5. **Fiscal Implications**

    Since this proposed program takes full advantage of existing graduate course offerings, as well as innovations in the delivering and scheduling of courses in the two departments, there areno new faculty, facilities, or additional resources required. Therefore, the cost impact to the university is negligible, and the revenue implication will be small at the beginning but have unlimited upward potential.