## BOARD OF HIGHER EDUCATION <br> REQUEST FOR COMMITTEE AND BOARD ACTION

COMMITTEE: Academic Affairs
NO.: AAC 13-35
COMMITTEE DATE: June 11,2013
BOARD DATE: June 18, 2013

APPLICATION OF BAY STATE COLLEGE TO AWARD THE ASSOCIATE IN APPLIED SCIENCE IN INFORMATION TECHNOLOGY AND BACHELOR OF SCIENCE IN INFORMATION TECHNOLOGY

MOVED: $\quad$ The Board of Higher Education hereby approves the Articles of Amendment of Bay State College to award the Associate in Applied Science in Information Technology and Bachelor of Science in Information Technology.

Authority: Massachusetts General Laws, Chapter 69, Section 30 et seq.
Contact: Dr. Shelley Tinkham, Assistant Commissioner for Academic, P-16 and Veterans Policy

# BOARD OF HIGHER EDUCATION 

Bay State College<br>Associate in Applied Science in Information Technology and Bachelor of Science in Information Technology

## INTENT

Bay State College, a New England Association of Schools and Colleges (NEASC) accredited, private, for-profit institution located in Boston, MA, requests authorization to offer an Associate in Applied Science in Information Technology and Bachelor of Science in Information Technology. The purpose of the proposed Associate in Applied Science degree in Information Technology (ITA) is to prepare students for immediate entry into the workforce or for matriculation in bachelor's degree programs in related fields. The proposed Bachelor of Science in Information Technology (ITB) provides further education for students who already hold associate degrees, prepares students for immediate entry into the workforce and positions student to pursue graduate degrees. Both programs build on a framework of technologycentered existing coursework in the Business Department.

While many positions in the information technology (IT) field, especially in areas such as software development or in upper management, require graduate education, in today's IT market, there is a demonstrated need for entry-level associate and bachelor degree preparation. According to the College, the National Skills Coalition's' report, "Massachusetts' Forgotten Middle-Skill Jobs" highlights a need for the proposed degrees which seek to prepare graduates for entry and mid-level careers in the IT field. Graduates will be prepared with the knowledge and skills to move into a wide range of occupations related to information and communications technologies. Graduates of the proposed ITA will be prepared for careers as computer user support specialists and computer network specialists. In addition to these careers, ITB graduates will be prepared for employment as computer systems analysts, information security analysts, database administrators and computer systems administrators. These career paths offer opportunities with mid-sized and larger firms, which generally employ internal computer support technicians and professionals. In addition to strong employment projections, these roles also have median salaries in 2010 ranging from $\$ 50,000$ to $\$ 80,000$.

The Board of Trustees discussed and approved the design of the Associate in Applied Science in Information Technology and Bachelor of Science in Information Technology in its November 2011 meeting. All the courses and syllabi, prerequisites, and other degree requirements in the ITA Program were reviewed over multiple meetings of the Bay State Faculty Curriculum Committee and approved in February 2012.

## INSTITUTIONAL OVERVIEW

Bay State College was first founded as a travel academy in 1946. Over the years it has pursued a more comprehensive general education curriculum, with an emphasis on written and oral communication skills. Currently, Bay State offers Associate and Bachelor degree programs in business and commerce, allied health and other disciplines. The College's strategic plan is to strengthen the depth of its current two-year program offerings by offering Bachelor of Science degrees in related disciplines.

The institution was approved in 2004 to offer its first baccalaureate degrees: Bachelor of Science in Management; Bachelor of Science in Entertainment Management and Bachelor of Science in Fashion Merchandising. Most recently, in 2010, the College was approved to offer the Associate in Science in Nursing and Bachelor of Science in Criminal Justice. The College was approved to offer the Bachelor of Science in Nursing in October of 2012. The institution now requests authority to offer Associate in Applied Science in Information Technology and Bachelor of Science in Information Technology.

## ACADEMIC AND RELATED MATTERS

## Curriculum (Attachment A)

The Associate in Information Technology (ITA) curriculum consists of 62 credits, including 21 general education credits. The ITB curriculum consists of 122 credits with 42 general education credits. Both degrees are designed to build a series of technical, business, and professional skills through a sequenced, mutually reinforcing set of courses.

In preparing the curriculum for each program, the College consulted with a number of industry executives with responsibility for the hiring and supervision of entry-level and mid-career IT professionals and with several faculty members at area post-secondary institutions, some of whom are current members of the College's Business Department Advisory Board. Both programs were then benchmarked against similar programs at other colleges and universities in New England, including those at Wentworth Institute of Technology, Northeastern University, University of Massachusetts Boston and Worcester Polytechnic Institute.

Both programs build upon elements of information technology coursework in existing Bay State College programs in Management, Marketing, Finance, and Business Administration. The ITA curriculum covers the following subject areas in computer technology: User Support; Desktop Applications; Networking; Computer Maintenance; and Project/Information Systems Management. In addition to these subject areas, the ITB also includes Information Architecture and Programming.

The ITA Program learning objectives listed below reflect the knowledge and skills students will acquire through their content area and general education coursework. Upon completion of the Bay State College Associate's of Applied Science in Information Technology, students will:

1. Identify, explain, and perform essential IT support skills including installing, configuring, securing and troubleshooting operating systems, business applications software, and hardware.
2. Demonstrate knowledge of business and professional work environments and of effective management practices.
3. Comprehend systems administration skills related to server operating systems, system and network service administration, computer and information security, and directory services administration.
4. Perform independent research concerning technology problems and employ strategies to keep knowledge of technology systems and platforms current.
5. Outline and employ methods for assisting other technology users, including training and maintenance plans, and to translate their technical knowledge into forms usable by nonspecialists.
6. Exercise interpersonal techniques that indicate respect for the diverse technical support needs of computer users.
7. Integrate and utilize professional industry standards for documentation of work, for respect of the privacy of users and proprietary information, and for ethical conduct.

The ITB Program learning objectives listed below reflect the knowledge and skills students will acquire through their content area and general education coursework. Upon completion of the Bay State College Bachelor of Science in Information Technology Program, students will:

1. Demonstrate understanding of the use and application of appropriate information technology methods, processes and tools to address real-world problems.
2. Comprehend how to select, deploy, and maintain information technology resources to help an organization achieve its goals and objectives.
3. Recognize new developments and trends in information technology and evaluate and recommend the use of appropriate new technologies.
4. Analyze and effectively communicate the strategic implications of information technology resource allocation for the successful functioning of an organization.
5. Understand the ethical and societal issues facing information technology professionals and be able to formulate appropriate solutions.
6. Gain proficiency in working as a member and leader of IT and cross-functional teams.
7. Demonstrate knowledge of business and professional work environments and of effective management practices.

## Admission Requirements

## Admission requirements for the ITA

New ITA degree students must:

- Complete a Bay State College admissions application
- Graduate from high school with a 2.0 score or better "Graduate" had been italicized
- Provide a copy of a high school diploma or college transcript
- Letters of recommendation are encouraged

Transfer Students to the ITA program must:

- Have attended an accredited institution
- Have taken courses that are equivalent to ones offered at Bay State College. This excludes elective credits
- Earned a grade of a C or better. Science and technology courses must have been taken in the last five years, and general education courses must have been taken in the last 10 years

Graduation requires a 2.0 grade point average and satisfactory completion of the 62 credit hours i the program outlines. Admission requirements for the ITB

New bachelor's degree students must:

- Complete a Bay State College admissions application
- Graduate from high school with a 2.3 score or better
- Submit ACT or SAT scores
- Submit a recommendation from a high school faculty member (No recommendation required if GPA 2.5 or higher)

Transfer Students must:

- Possess a minimum GPA of 2.3 or higher from an accredited college
- Have completed 12 or more credits towards graduation
- Submit a recommendation from a faculty member (No recommendation required if GPA 2.5 or higher

Graduation requires a 2.0 grade point average and satisfactory completion of the 122 Credit hours the program outlines.

## Admission requirements common to both programs

- International students must submit a TOEFL score of 550 or better.
- Transfer students can ask that up to 30 credits for the ITA or 90 credits for the ITB earned elsewhere be recognized, providing the college or university is accredited and grades of C or above achieved. Science and technology courses must have been completed in the last five years and other general education courses in the last twenty years. Remedial or developmental courses are not counted. The Bay State College Registrar asks to review any CLEP credit requests. For transfer or other students who take course work elsewhere, nine of the last fifteen course credits must be taken at Bay State College, and transfer courses must be preapproved by the advisor, program chair or dean.


## Tuition and Fees

The approximate total cost for the ITA from beginning to end (year one and two) is $\$ 46,222$. The ITB from beginning to end (years one through four) is estimated at $\$ 92,444$.

Projected Enrollment (chart includes Associate's and Bachelor's degree program combined)
Bay State College has two starts per year in its day division and 6 starts per year in its CE and online divisions. In years two through four, the "New Full Time" and "New Part Time" enrollments above are for fall only. Other than for year 1, all enrollment projections are for fall of each year. Due to multiple starts, "Continuing Full Time" and "Continuing Part Time" enrollment numbers may be higher than total population from prior year.

|  | \# of Students <br> Year 1 | \# of Students <br> Year 2 | \# of Students <br> Year 3 | \# of Students <br> Year 4* |
| :--- | :--- | :--- | :--- | :--- |
| New Full Time | 21 | 33 | 37 | 42 |


| Continuing Full Time |  | 18 | 59 | 81 |
| :--- | :--- | :--- | :--- | :--- |
| New Part Time | 4 | 6 | 7 | 8 |
| Continuing Part Time |  | 3 | 11 | 15 |
| Totals | 25 | 60 | 114 | 146 |

## RESOURCES

## Administration and Faculty

The proposed programs will be housed in the Business Department and will be led by a fulltime terminally qualified program chair of information technology who will report to the Dean of the School of Management, who also serves as Chair of the Business Department. In addition to the full-time program chair in information technology, there are three full-time faculty members and four part-time faculty will teach information technology courses. In addition thee program will also be supported by four full-time faculty and 25 part-time general education faculty.

## Library and Technology

The institution's library is located on the 2nd floor of 31 Saint James Avenue and takes up a total area of approximately 4,200 square feet. The library houses more than 9,000 books, 80 print periodical subscriptions, database subscriptions to Pro Quest Central, JSTOR, LexisNexis Academic, Gale's database suite, CQ Researcher and Criminal Justice Abstracts with Full Text. In addition to more than 200 videos and 200 DVDs, the Library subscribes to Films on Demand, a resource that provides faculty and student access to 5,000 streaming educational films across the academic disciplines.

Bay State is a member of the Massachusetts Library System (MLS). The MLS provides the College's students and faculty with access to 71 databases and allows students to take full advantage of the Interlibrary-Loan (ILL) service. This service supplements the College's collections, provides books and periodical articles at the request of students, faculty, and staff. In addition, the Library is a member of LYRASIS, a library cooperative that provides consulting services and continuing education for staff, as well as opportunities to participate in consortium purchasing of library resources. In addition, the main branch of the Boston Public Library (BPL) is located only two blocks from Bay State's main campus. Bay State students have the benefit of the more than 6 million books at the Boston Public Library, and the nature of the College's relationship with the BPL allows for students to take full advantage of the numerous resources available, including rare books, manuscripts, CDs, videos, books on tape, records, photographs, an extended selection of periodicals, and cultural events.

## Facilities

Bay State is housed within eight brownstone apartments (six of them residence halls) on Commonwealth Avenue and leases classroom space at 31 St. James St. and 437 Boylston St. a few blocks from the residence halls. The IT classrooms include a hands-on lab and office space on the floor close to the lab at 31 St . James. There are offices for full time faculty, shared space for adjunct faculty, conference space, and access to communications and production equipment.

## Financial Resources (Attachment B)

The institution submitted two multi-year budgets for the proposed programs, respectively.

## EXTERNAL REVIEW AND INSTITUTIONAL RESPONSE

## External Review

The proposed program was reviewed by the visiting committee of Maria R. Garcia, Ed.D. Associate Dean of Distance Education, Franklin Pierce University; Dan Stefanescu, Ph.D., Professor, Department of Mathematics and Computer Science, Suffolk University and Craig E. Wills, Ph.D. Computer Science Department, Professor and Department Chair, Worcester Polytechnic Institute. The evaluation included the team's review of the written proposal submitted to the Massachusetts Department of Higher Education and the site visit conducted from December 7-9, 2012.

The visiting committee made several recommendations to improve the proposed program. The most important involved faculty; the College does not meet the minimal faculty standards as outlined in the 610 CMR for either proposed degree at the time of the site visit. The visiting committee made the following recommendations

- In order to offer the proposed associate degree and bachelor degree, hire a full-time faculty member with a doctoral degree in the discipline, thereby meeting the faculty standards for both the associate and bachelor degree programs, and bringing needed expertise to the baccalaureate degree program
- Ensure academic freedom and employment security by developing faculty contracts.


## Institutional Response

The institution hired a full-time qualified faculty member with a doctoral degree who will also serve as the program chair for both proposed programs beginning on August 5, 2013. The College provided a copy of the program chair's signed contract and provided documentation that, moving forward, all new full-time faculty at Bay State College will be engaged under the following contractual basis:

- First Contract: A one-year probationary period.
- Second Contract: A one-year renewal of the appointment.
- Third Contract: A two-year renewal of the appointment.
- Fourth Contract: A three-year renewal of the appointment.
- All subsequent contracts will be for a minimum period of three years.

The institution responded substantively to all recommendations, addressing all of the visiting committee's concerns.

## ATTACHMENT A: CURRICULUM OUTLINE

ITA Program Curriculum Outline

| Required (Core) Courses in the Major (Total \# courses required = 14) |  |  |
| :--- | :--- | :--- |
| Course Number | Course Title | Credit Hours |
| CIS 108 | Microcomputer Preparation | 3 |
| MAN 101 | Introduction to Business | 3 |
| MAN 102 | Management | 3 |
| CIS 120 | Network Fundamentals | 3 |
| CIS 123 | End User Support | 3 |
| CIS 202 | Windows Server | 3 |
| CIS 207 | Desktop Applications Support with Lab | 4 |
| ACC 100 | Financial Accounting I | 3 |
| CIS 112 | Concepts of Project Management | 3 |
| MAN 299/299S | Internship | 4 |
| CIS 221 | Microcomputer Maintenance Lab | 3 |
| MAT 211 | Mathematics for Management | 3 |
| MAN 312 | Management Information Systems | 41 |
|  |  | Sub Total Required Credits |

Prerequisite, Concentration or Other Requirements:
Students admitted to the ITA Program will need either to place into MAT 160, Precalculus, or take the prerequisite MAT 103, College Algebra, in addition to the credits listed above.
Students who place into MAT 099, Basic Math, will not be eligible for the ITA Program.

General Education Courses (Total \# courses required = 7)
Arts and Humanities, including Literature and Foreign Languages= 12 credits

| CIS 102 | Computer and Information Literacy | 3 |
| :--- | :--- | :--- |
| ENG 101 | English I | 3 |
| ENG 102 | English II | 3 |
| Arts and <br> Humanities <br> Elective | (Students choose one course from the list <br> below) | 3 |
| LIT 231 | Drama | 3 |
| LIT 200 | Literature | 3 |
| LIT 232 | The Mystery Story as Literature | 3 |



## ITB Program Curriculum Outline

| Required (Core) Courses in the Major (Total \# courses required =25) |  |  |
| :---: | :---: | :---: |
| Course Number | Course Title | Credit Hours |
| CIS 108 | Microcomputer Preparation | 3 |
| MAN 101 | Introduction to Business | 3 |
| MAN 102 | Management | 3 |
| CIS 120 | Network Fundamentals | 3 |
| CIS 123 | End User Support | 3 |
| CIS 202 | Windows Server | 3 |
| CIS 207 | Desktop Applications Support with Lab | 4 |
| CIS 208 | Introduction to Programming | 3 |
| ACC 100 | Financial Accounting I | 3 |
| CIS 112 | Concepts of Project Management | 3 |
| MAN 299/299S | Internship Seminar/Internship | 3 |
| CIS 221 | Microcomputer Maintenance with Lab | 4 |
| CIS 300 | Web Programming with Lab | 4 |
| MAN 240 | Organizational Behavior | 3 |
| FIN 201 | Finance | 3 |
| MKT 210 | Principles of Marketing | 3 |
| MAN 312 | Management Information Systems | 3 |
| MAN 401 | Operational Management | 3 |
| CIS 302 | Advanced Programming with Lab | 4 |
| CIS 304 | Network Infrastructure and Security | 3 |
| CIS 404 | Design, Deployment and Management with Lab | 4 |
| MAN 403 | Systems Analysis and Design | 3 |
| MAN 411 | Strategic Management | 3 |
| MAN 499 | Internship II | 3 |
| Program Elective | One course is required from the list below | 3 |
| CIS 111 | Excel | 3 |
| MAN 205 | Human Resource Management | 3 |
| MAN 332 | Negotiations | 3 |
| MAN 343 | Leadership | 3 |
| MKT 321 | New Product Development | 3 |
| MKT 422 | International Marketing | 3 |
| MKT 425 | Marketing Research | 3 |



| PSY 201 | Abnormal Psychology | 3 |
| :---: | :---: | :---: |
| PSY 203 | Growth and Development | 3 |
| PSY 205 | Addiction and Society | 3 |
| PSY 207 | Human Lifespan Development | 3 |
| SOC 206 | Sociology of Deviance | 3 |
| SOC 207 | American Diversity | 3 |
|  |  |  |
|  | Mathematics and the Natural and Physical Sciences | 12 credits |
| MAT 200 | Statistics | 3 |
| MAT 160 | Precalculus | 3 |
| MAT 230 | Calculus I | 3 |
| Mathematics and the Natural and Physical Sciences Elective | One course is required from the list below | 3 |
| BIO 201 | Anatomy \& Physiology | 3 |
| BIO 203 | General Microbiology | 3 |
| MAT 211 | Mathematics for Management | 3 |
|  |  |  |
|  | Sub Total General Education Credits | 42 credits |
| Curriculum Summary |  |  |
| Total number of courses required for the degree |  |  |
| Total credit hours required for degree |  | 122 credits |

## ATTACHMENT B: BUDGET PROJECTION

| BUDGET: Associate \& Bachelor of Science in Information Technology Programs |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 |
| Summary of Key Metrics |  |  |  |  |  |  |
| \# of campuses offering by Year End |  | 3 | 3 | 3 | 3 | 3 |
| New Students starting - Associate only |  | 44 | 59 | 54 | 54 | 54 |
| New Students starting - Bachelors only |  | 32 | 50 | 55 | 63 | 63 |
| Graduates - |  | 0 | 19 | 27 | 33 | 35 |
| Ending (Spring) Population - Assoc. <br> + Bachelors |  | 51 | 89 | 109 | 122 | 127 |
| Number of full-time faculty at Yearend |  | 1 | 2 | 2 | 3 | 3 |
|  |  |  |  |  |  |  |
|  | Year 0 | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 |
| Tuition revenue | \$ | \$789,955 | \$1,658,020 | \$2,275,435 | \$2,814,203 | \$3,180,736 |
| Other Fees |  | 9,188 | 43,313 | 61,559 | 79,157 | 91,115 |
| Institutional Aid |  | (93,356) | $(220,054)$ | $(312,757)$ | (402,165) | (462,921) |
| Total Revenue | \$ | \$ 752,886 | \$1,579,243 | \$2,150,880 | \$2,639,606 | \$2,972,256 |
| Facilities and Instruction |  |  |  |  |  |  |
| Instructor Salaries |  |  |  |  |  |  |
| Instructor Benefits |  | 16,250 | 29,756 | 31,407 | 45,735 | 47,335 |
| Cost of Supplies |  | 14,175 | 65,874 | 87,660 | 104,638 | 116,108 |
| Cost of Classroom Space |  | 41,600 | 41,600 | 41,600 | 41,600 | 41,600 |
| Depreciation of Program Specific Instructional Equipment/Facility | 3,733 | 17,467 | 21,200 | 24,933 | 28,667 | 32,400 |
| Cost of Facilities and Instruction | \$3,733 | \$389,814 | \$706,966 | \$778,879 | \$880,622 | \$923,778 |
| Facilities and Instruction as \% to Revenue |  | 51.8\% | 44.8\% | 36.2\% | 33.4\% | 31.1\% |
| Marketing and Admissions Costs |  |  |  |  |  |  |
| Advertising Expense | 60,525 | 162,990 | 169,200 | 178,515 | 181,620 | 181,620 |
| Marketing Collateral and Postage Expense | 10,000 | 10,000 | 10,000 | 10,000 | 10,000 | 10,000 |
| Other variable Marketing and Admissions costs |  |  |  |  |  |  |
| Marketing and Admissions Expense | \$70,525 | \$172,990 | \$179,200 | \$188,515 | \$191,620 | \$191,620 |
|  |  | 23.0\% | 11.3\% | 8.8\% | 7.3\% | 6.4\% |
| Admin Expense |  |  |  |  |  |  |
| Bad Debt Expense |  | 26,351 | 55,274 | 75,281 | 92,386 | 104,029 |
| Campus Staff Supporting Students |  | 173,164 | 363,226 | 494,702 | 607,109 | 683,619 |
| Other Admin Expenses | 25,000 |  |  |  |  |  |
| Total Admin Expense | \$25,000 | \$199,515 | \$418,500 | \$569,983 | \$699,496 | \$787,648 |
|  |  | 26.5\% | 26.5\% | 26.5\% | 26.5\% | 26.5\% |
|  |  |  |  |  |  |  |


| Total Expenses | \$99,258 | \$762,319 | \$1,304,666 | \$1,537,377 | \$1,771,738 | \$1,903,046 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 101.3\% | 82.6\% | 71.5\% | 67.1\% | 64.0\% |
| Contribution to Operating | \$(99,258) | \$ (9,432) | \$274,578 | \$613,503 | \$867,868 | \$1,069,210 |
|  |  | -1.3\% | 17.4\% | 28.5\% | 32.9\% | 36.0\% |
| Cumulative Contribution to Surplus | \$ (99,258) | $\begin{aligned} & \$ \\ & (108,691) \end{aligned}$ | \$165,887 | \$779,390 | \$1,647,258 | \$2,716,468 |
| Cash Flow: |  |  |  |  |  |  |
| Add back Depreciation | \$ $(95,525)$ | \$8,034 | \$295,778 | \$638,436 | \$896,535 | \$1,101,610 |
| Deduct capital Expenditure | 14,000 | 44,000 | 14,000 | 14,000 | 14,000 | 14,000 |
| Cash Flow | $\begin{aligned} & \$ \\ & (109,525) \end{aligned}$ | \$ $(35,966)$ | \$281,778 | \$624,436 | \$882,535 | \$1,087,610 |

Faculty Form

| Summary of Faculty Who Will Teach in Proposed Programs |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Name of faculty member (Name, Degree and Field, Title) | Check if Tenured | Courses Taught Put (C) to indicate core course. Put (OL) next to any course currently taught online. | Number of sections | Division of College of Employme nt | Full- or Parttime in Program | Full- or parttime in other department or program (Please specify) | Sites where individual will teach program courses |
| Koehler, William Ph.D. in Labor History Dean, School of Management |  | - Organizational Behavior (C) <br> - Principles of Marketing <br> - Strategic <br> Management | $\begin{aligned} & \hline(1) \\ & (2) \\ & (1) \end{aligned}$ | Day | Part-time | Yes-Full-time in Business Department | - Boston Campus |
| Swaim, Elena <br> M. Ed. In Higher Education Associate Professor |  | - Intro to Business <br> (C) <br> - Management (C) <br> - International Management | (3) <br> (2) <br> (1) | Day | Part-time | Yes- Full-time in Business Department | - Boston Campus |
| Vasbinder, William <br> Ph.D., Education <br> Leadership <br> Assistant Professor |  | - Organizational Behavior (C) <br> - Leadership <br> - Principles of Marketing | (1) <br> (1) <br> (1) | Day | Part-time | Yes- Full-time in Business Department | - Boston Campus |
| Fell, Peter MS in Economics MS in Sociology Adjunct Professor |  | - Computer and Info Literacy <br> - Microeconomics <br> - Internship <br> - Finance <br> $\bullet$ Risk Management | (1) <br> (2) <br> (1) <br> (2) <br> (1) | Day | Part-time | Yes- Parttime in Business Department | - Boston Campus |


| Ferrari, Judith MBA <br> Adjunct Professor | - Excel (C) <br> - Fin Accounting <br> - Finance <br> - Ethics <br> - Senior Seminar | (1) <br> (1) <br> (1) <br> (1) <br> (1) | Day | Part-time | Yes--Parttime in Business Department | - Boston Campus |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Smith, Ronald M. Ed. In Education Adjunct Professor | - Computer and Information Literacy <br> - Network <br> Fundamentals (C) <br> - Desktop Applications Support Lab (C) | $\begin{aligned} & \hline(8) \\ & (1) \\ & (1) \end{aligned}$ | Day | Full-time Adjunct | Yes--Full-time <br> Adjunct in Business Department | $\bullet$ Boston Campus |
| Wanjigi, Wilson M.S. in Information Technology | - Project <br> Management (C) <br> - Microcomputer <br> Preparation (C) <br> - End User Support <br> (C) <br> - Management Information Systems (C) <br> - Operational Management <br> - Systems Analysis and Design | (1) <br> (1) <br> (1) <br> (1) <br> (1) <br> (1) | Day | Part-time | Yes--Parttime in Business Department | - Boston Campus |
| Mustafa, Yousif <br> Ph.D. in Information <br> Systems in <br> Manufacturing <br> Program Chair, IT | - Network Fundamentals (C) <br> - Desktop Applications Support w/Lab (C) <br> - Windows Server (C) | (1) <br> (1) <br> (1) <br> (1) <br> (1) <br> (1) <br> (1) <br> (1) <br> (1) | Day | Full-time | Part-time in Business Department | Boston Campus |


|  |  | QIntroduction to <br> Programming <br> (C) <br> Web <br> Wrogramming <br> Prab (C) <br> w/Lab <br> Advanced <br> Programming <br> w/Lab (C) <br> Network <br> Infrastructure <br> and Security (C) <br> Design, <br> Deployment and <br> Management <br> w/Lab (C) |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |

