Item #III-8
April 12, 2011

NEW UNITS OF INSTRUCTION AT PUBLIC COMMUNITY COLLEGES

Submitted for: Action.

Summary: This item requests approval of four new associate degree programs to be offered at seven community colleges.

Action Requested: That the Illinois Board of Higher Education approves the following programs at the colleges indicated:

Frontier Community College
- Associate of Applied Science in Health Informatics

Highland Community College
- Associate of Applied Science in Equine Science

Illinois Eastern Community Colleges (Frontier Community College, Lincoln Trail College, Olney Central College, and Wabash Valley College)
- Associate in Engineering Science

Moraine Valley Community College
- Associate of Applied Science in Mechatronics Technology

STATE OF ILLINOIS
BOARD OF HIGHER EDUCATION

NEW UNITS OF INSTRUCTION AT PUBLIC COMMUNITY COLLEGES

By statute, the Illinois Board of Higher Education is responsible for approving new associate degree programs proposed by public community colleges. The Board's approval criteria, defined in administrative rules, address relevance to college mission, academic control, faculty and staff, support services, financial resources, student demand, employer demand, curriculum, and congruence with IBHE policies and priorities. Before a recommendation for approval of an associate degree program is submitted to the IBHE for approval, staffs of the IBHE and the Illinois Community College Board (ICCB) review the proposal. Once agreement is reached on a proposal having met the approval criteria, a recommendation for approval is presented to each board.

Frontier Community College
2 Frontier Drive
Fairfield, Illinois 62837-9701
President: Dr. Timothy L. Taylor

Proposed Program Title: Associate of Applied Science in Health Informatics

Projected Enrollments: Frontier Community College anticipates enrollments in the proposed Associate of Applied Science in Health Informatics program to be ten full-time students and five part-time students the first year, increasing to 20 full-time students and ten part-time students by the third year.

Introduction, Curriculum, and Assessment of Student Learning Outcomes

Frontier Community College (the College) is seeking approval to offer a 65 credit hour Associate of Applied Science (A.A.S.) degree in Health Informatics. The program is designed to prepare individuals for employment as health information technicians. The program was developed according to standards for program accreditation by the Commission on Accreditation for Health Informatics and Information Management (CAHIIM) Education. The curriculum includes 18 credit hours of general education coursework and 47 credit hours of career and technical education coursework. The career and technical component includes instruction in business computer systems, medical terminology, healthcare delivery systems, health data management, healthcare reimbursements, pharmacotherapy fundamentals, human pathophysiology, diagnostic coding fundamentals, health statistics and research, healthcare law and ethics, procedural coding fundamentals, clinical coding applications, healthcare quality management, certification review, and a required work-based learning experience in health informatics.

Student learning outcome results will be analyzed and improved using the process of assessing students' performance during the work-based learning experience and on the certification practice exam. The curriculum is designed to prepare individuals for the Registered Health Information Technician (RHIT) and the Certified Coding Associate (CCA) credentialing exams available through the American Health Information Management Association (AHIMA). Certification is not required for entry-level employment but is preferred by most employers.

Labor Market Information

Labor market information provided by the College supports the interest in and the need for a formalized two-year training program in this field of study. Local employers, including hospitals, physician's offices, insurance providers, and medical and legal service providers were surveyed to gauge labor market and educational needs within the district. Survey results indicated a significant need for and interest in a two-year degree program in health informatics that would lead towards industry credentialing. According to the Illinois Department of Employment Security (IDES), growth in the employment of medical records technicians is anticipated to increase by 20 percent statewide through 2018. The College is also developing a series of related certificate programs in Health Information Technology and Medical Coding that will ladder into the proposed degree program.

Resources: Faculty, Staff, etc.

The College anticipates two new full-time faculty to implement the program. Qualified faculty will hold a minimum of a Bachelor's degree in Health Information Management, RHIT certification, and possess at least three years of related occupational experience and three years of teaching experience. Classroom facilities are adequately in place to support the program. Costs are anticipated at $137,845 the first year, $113,655 the second year, and $117,064 the third year. These costs are for new faculty, the purchase of coding software, and accreditation fees over the three year period.

Staff Conclusion. The staff concludes that Frontier Community College and its proposed degree program meet the criteria in Sections 1030.30 and 1030.60 of the rules to implement The Private College Act (110 ILCS 1005) and The Academic Degree Act (110 ILCS 1010) and the Illinois Board of Higher Education policies pertaining to assessment and accreditation for licensure.

Highland Community College
2998 West Pearl City Road
Freeport, Illinois 61032-9341
President: Dr. Joe M. Kanosky

Proposed Program Title: Associate of Applied Science in Equine Science

Projected Enrollments: Highland Community College anticipates an enrollment of eight full-time students and eight part-time students the first year, increasing to 12 full-time students and 24 part-time students by the third year.

Introduction, Curriculum, and Assessment of Student Learning Outcomes

Highland Community College (the College) is seeking approval to offer a 65 semester credit hour Associate of Applied Science (A.A.S.) degree in Equine Science. The program is designed to prepare individuals for employment in the equine industry handling, instructing, caring for, and managing equine facilities and services. The program includes 20 credit hours of general education coursework and 45 credit hours of career and technical education coursework. The career and technical component includes instruction in equine business management, equine facilities, equine evaluation, equine healthcare, equine nutrition, equine physiology, horse handling, handler exercise, horse shoeing, horse training, riding, riding instruction, stable management, and two required workplace learning experiences in equine handling/care and facilities management.

Student learning outcome results will be analyzed and improved using the process of assessing students' performance during the work-based learning component of the curriculum.

Labor Market Information

Labor market information provided by the College supports the interest in and the need for a formalized training program in this field of study. There are approximately six equine facilities within the College's district. The College conducted a labor market and educational interest survey last year that indicated a need for additional and better trained and educated workers for this industry. The College worked with an advisory committee of local employers to establish a curriculum that would meet their needs for new and existing workers, as well as provide students with a broad level of transferrable knowledge and skills within the field.

Resources: Faculty, Staff, etc.

The College estimates four new part-time and three existing part-time faculty will be necessary to implement the program. Qualified faculty will have a minimum of two years experience in equine handling and in care and facilities management, in addition to the appropriate certifications required for equine care. Facilities utilized for applied instruction and work-based learning will be rented from local equine business operators so that students may choose the facilities closest to them. Costs are anticipated at $49,000 during the first and second years and $54,000 during the third year. The increase in cost in the third year reflects an anticipated increase in part-time faculty.

Staff Conclusion. The staff concludes that Highland Community College and its proposed degree program meet the criteria in Sections 1030.30 and 1030.60 of the rules to implement The Private College Act (110 ILCS 1005) and The Academic Degree Act (110 ILCS 1010) and the Illinois Board of Higher Education policies pertaining to assessment and accreditation for licensure.

Illinois Eastern Community Colleges
(Frontier Community College, Lincoln Trail College, Olney Central College, and Wabash Valley College)
233 East Chestnut Street
Olney, Illinois 62450-2298
CEO: Mr. Terry Bruce
Presidents: Dr. Timothy L. Taylor – Frontier Community College
Mr. Mitch Hannahs – Lincoln Trail College
Mr. Rodney Ranes – Olney Central College
Mr. Matt Fowler – Wabash Valley College

Proposed Program Title: Associate in Engineering Science

Projected Enrollments: Illinois Eastern Community Colleges anticipates enrolling 25 to 30 full-time students in fall 2011 and approximately the same number in each of the following two years.

Introduction, Curriculum, and Assessment of Student Learning Outcomes

Illinois Eastern Community Colleges (IECC) is seeking approval to offer a 62 credit hour Associate in Engineering Science (A.E.S.) degree. The proposed program is designed to prepare students planning to obtain a baccalaureate degree in a related engineering science field or those planning to enter the workforce with a potential for earning a baccalaureate degree in the future.

The curriculum of the program is comprised of 50 credit hours in general education courses (including Chemistry, Calculus I, II, and III, Physics I and II, and Differential Equations) and 12 credit hours in required program courses as outlined on the Illinois Articulation Initiative (IAI) Engineering Major Panel's webpage, which lists the prerequisite, general education, and major course recommendations. The core curriculum has also been designed for flexibility to meet the needs of students regardless of where they transfer. However, all courses are consistent with the requirements of area transfer institutions such as Southern Illinois University, Eastern Illinois University, and Rose-Hulman Institute of Technology. The program is designed for those that are majoring in a variety of engineering specialties such as mechanical, civil, manufacturing, industrial, electrical, and computer engineering.

Assessment of the student learning outcomes in the program will be conducted every three years to measure student success and outcome attainment, as well as by the Illinois Community College Board's (ICCB) program review, which takes place every five years. Likewise, all program courses will be reviewed every semester to ensure that all courses are fulfilling the expected course outcomes.

Labor Market Information

Overall future employment opportunity for engineers is good, with some specialties in higher demand than others. Industries that employ engineers include manufacturing, office buildings, laboratories, industrial plants, transportation, construction sites, oil and gas exploration and production sites, alternate energy research and development, and public facilities, including roads, bridges and water, and pollution control systems. The Illinois Department of Employment Security's (IDES) occupational projections for engineers between 2006 and 2016 are strong, but vary from field to field. The employment projections include over two percent for electrical/electronic engineers and mechanical engineers, 20 percent for civil engineers, 28.5

percent for industrial engineers, and 51 percent for computer engineers. It is expected that as graduates of this program transfer to four-year programs in engineering, they will become more familiar with the employment outlook for different specialties in engineering, and they will choose their majors in engineering fields accordingly. Regardless of the field of engineering selected, occupational demand for engineers is projected to be above the average for all occupations in Illinois.

Resources: Faculty, Staff, etc.

Instructors for the engineering core courses include seven full-time and two adjunct faculty members. These existing faculty members will be used for the delivery of courses, and no new faculty will need to be hired at this time. All classroom facilities and other needed facilities for the program are adequate and in place to support the A.E.S. program. The IECC are continually improving their lab equipment in Physics and Chemistry with new computers and monitors, and several classrooms/labs are dedicated to pre-engineering courses. LabPro interfaces and sensors, as well as MATLAB software, are recent purchases added to enhance the program. Additional money will be allocated as necessary for software needs over the first three years.

Staff Conclusion. The staff concludes that Illinois Eastern Community Colleges and its proposed degree program meet the criteria in Sections 1030.30 and 1030.60 of the rules to implement The Private College Act (110 ILCS 1005) and The Academic Degree Act (110 ILCS 1010) and the Illinois Board of Higher Education policies pertaining to assessment and accreditation for licensure.

Moraine Valley Community College
9000 West College Parkway
Palos Hills, Illinois 60465-0937
President: Dr. Vernon O. Crawley

Proposed Program Title: Associate of Applied Science in Mechatronics Technology

Projected Enrollments: Moraine Valley Community College anticipates an enrollment of five full-time students and five part-time students the first year, increasing to 15 full-time students and 15 part-time students by the third year.

Introduction, Curriculum, and Assessment of Student Learning Outcomes

Moraine Valley Community College (the College) is seeking approval to offer a 63 credit hour Associate of Applied Science (A.A.S.) degree program in Mechatronics Technology. This program is a blend of several industrial and engineering technologies including mechanics, electronics, and computerized control. Graduates of the program will be prepared for entry-level employment with manufacturing, industrial, and engineering service providers who utilize technicians trained across disciplines. Job titles may include mechatronics technician, electro-mechanical technician, mechanical CAD technician, or integrated design technician. The College received a grant from the National Science Foundation (NSF) to develop a curriculum that would train students in integrated technologies within manufacturing and industrial settings. The College partnered with Purdue University Calumet to design a program that would not only prepare graduates for entry-level employment, but would also provide an articulation opportunity for them at the baccalaureate level. The curriculum consists of 25 credit hours of general education coursework and 38 credit hours of career and technical education coursework. The career and technical component includes instruction in drafting, mechanical assemblies, mechanical detailing, computer-assisted design, machine elements, machine tools, basic metallurgy and materials, statics and stress of materials, computerized systems, industrial controls, electricity and electronics, digital logic, and solid state devices.

Student learning outcome results will be analyzed and improved using the process of assessing students' portfolios.

Labor Market Information

Labor market information provided by the College is supportive of a formalized two-year educational program in this new and emerging field of study. Through the NSF grant and collaboration with Purdue University Calumet, the College identified a significant need for technicians trained across manufacturing, industrial, and engineering settings. Currently, only one other community college in the state offers a similar program. According to the Illinois Department of Employment Security (IDES), growth in the demand for industrial engineering technicians is anticipated to increase by ten percent statewide through 2018. The College currently offers a related Mechanical Design Drafting Certificate program that would almost completely articulate into the proposed degree, giving certificate students an educational ladder opportunity at the two-year level. Students in this certificate program have also expressed an interest in this degree.

Resources: Faculty, Staff, etc.

The program will require seven existing full-time and eight existing part-time faculty to implement the program. Qualified faculty hold a minimum of a master's degree in Industrial Engineering, Mechanical Engineering, or Industrial/Mechanical Engineering Technology and at least one year of related occupational experience and one year of teaching experience. Classroom and laboratory facilities are adequately in place to support the proposed program. Program development was supported through the NSF grant, and implementation will be supported through student tuition and fees. No new costs are anticipated during the first three years to support the program.

Staff Conclusion. The staff concludes that Moraine Valley Community College and its proposed degree program meet the criteria in Sections 1030.30 and 1030.60 of the rules to implement The Private College Act (110 ILCS 1005) and The Academic Degree Act (110 ILCS 1010) and the Illinois Board of Higher Education policies pertaining to assessment and accreditation for licensure.

The staff recommends that the Illinois Board of Higher Education adopt the following resolutions:

The Illinois Board of Higher Education hereby grants authority to Frontier Community College to offer the Associate of Applied Science in Health Informatics subject to the institution's implementation and maintenance of the conditions that were presented in its application and that form the basis upon which this authorization is granted.

The Illinois Board of Higher Education hereby grants authority to Highland Community College to offer the Associate of Applied Science in Equine Science subject to the institution's implementation and maintenance of the conditions that were presented in its application and that form the basis upon which this authorization is granted.

The Illinois Board of Higher Education hereby grants authority to Illinois Eastern Community Colleges (Frontier Community College, Lincoln Trail College, Olney Central College, and Wabash Valley College) to offer the Associate in Engineering Science subject to the institution's implementation and maintenance of the conditions that were presented in its application and that form the basis upon which this authorization is granted.

The Illinois Board of Higher Education hereby grants authority to Moraine Valley Community College to offer the Associate of Applied Science in Mechatronics Technology subject to the institution's implementation and maintenance of the conditions that were presented in its application and that form the basis upon which this authorization is granted.