

COMMISSION FOR HIGHER EDUCATION

Friday, March 12, 2010

DECISION ITEM A-1:

Associate of Science in Engineering Technology To Be Offered by Ivy Tech Community College at South Bend, Kokomo, Muncie, Richmond, Columbus, Evansville, and Bloomington

Staff Recommendation

That the Commission for Higher Education approve the Associate of Science (A.S.) in Engineering Technology To Be Offered by Ivy Tech Community College at South Bend, Kokomo, Muncie, Richmond, Columbus, Evansville, and Bloomington, in accordance with the background discussion in this agenda item and the *Abstract*, February 26, 2010; and

That the Commission recommend no new state funds, in accordance with the supporting document, *New Academic Degree Program Proposal Summary*, February 26, 2010.

Background

In December of last year, the Commission for Higher Education approved the Purdue University West Lafayette B.S. in Engineering Technology to be delivered via Statewide Technology at four initial sites. As reported to the Commission at that time, Purdue, Ivy Tech, and the Commission staff had been meeting regularly over the previous five months to develop an articulation agreement between the B.S. in Engineering Technology and what would be a new Ivy Tech program, the A.S. in Engineering Technology. The Commission authorized the baccalaureate Engineering Technology program with the understanding that an articulation agreement was close at hand, with only four courses remaining to be finalized. Purdue and Ivy Tech now report that the articulation agreement has been completed and will be truly statewide in nature, i.e. applying to all Statewide Technology and Ivy Tech Engineering Technology programs.

Ivy Tech seeks authorization for the A.S. in Engineering Technology at seven sites. Four of these (Kokomo, Muncie, Richmond, and South Bend) correspond to the regions for which Purdue received approval to offer the B.S. in Engineering Technology. The other three sites (Bloomington, Columbus, and Evansville) have industries whose workforce requires skills that students completing the proposed Ivy Tech program will acquire.

In addition to meeting workforce and articulation objectives, Ivy Tech has designed the Engineering Technology program so that it can meet the standards for accreditation established by the Accreditation Board for Engineering and Technology (ABET), including those applying to the curriculum, faculty, and equipment requirements. The College has two other programs for which ABET accreditation will be sought: the A.S. in Electrical Engineering Technology (EET), offered in South Bend and Indianapolis, and the A.S. in Mechanical Engineering Technology (MET), offered in Lafayette, Indianapolis, and Columbus. Because these programs received approval by the Commission only relatively recently – EET in August 2007 and MET in December 2008 – they are not yet eligible to be accredited. Ivy Tech has been advised by ABET to apply for accreditation for both of these programs at all sites in 2013. Purdue University has volunteered to mentor the College during its preparations for accreditation.

Supporting Documents

- (1) *Abstract - Associate of Science in Engineering Technology To Be Offered by Ivy Tech Community College at South Bend, Kokomo, Muncie, Richmond, Columbus, Evansville, and Bloomington, February 26, 2010.*
- (2) *New Academic Degree Program Proposal Summary – A.S. in Engineering Technology, February 26, 2010.*

Abstract

Associate of Science in Engineering Technology
To Be Offered by
Ivy Tech Community College at South Bend, Kokomo,
Muncie, Richmond, Columbus, Evansville, and Bloomington

February 26, 2010

Objectives: To provide students with technical skills and knowledge necessary for employment in engineering and technology industries. The program will educate skilled technicians who will work with engineers and other technicians to design, implement, and support engineering processes. Activities such as collecting, analyzing, and interpreting data and troubleshooting complex integrates systems will be foundational concepts in all coursework.

Clientele to be Served: Traditional students, both full- and part-time, who are recent high school graduates; non-traditional adult students who are underemployed or preparing to enter/re-enter the workforce; and students pursuing a baccalaureate degree in engineering technology who want to start at a community college.

Curriculum: A total of 67 semester credit hours are required to complete the program, distributed as follows:

General Education (33 credit hours)

- English Composition (3)
 - Small Group Communications (3)
 - Fundamentals of Public Speaking (3)

 - College Algebra (3) and
 - Trigonometry with Analytic Geometry (3)
- OR**
- Calculus for Technology I (3) and
 - Calculus for Technology II (3)

 - Physics I & II (8)
 - Humanities Elective (3)
 - Humanities Elective (3)
 - Life Skills Elective (1)
 - Economics Fundamentals (3)

Professional Coursework (34 credit hours)

- Materials & Processes I (3)
- Principles of Management (3)
- CAD Fundamentals (3)
- Parametric Solid Modeling (3)
- Statics (3)
- Logic Design & Programming (3)
- Introduction to Engineering Technology (3)

- Organizational Behavior (3)
- Visual Basic Programming (3)
- Introduction to Circuit Analysis (4)
- Digital Fundamentals (3)

Employment Possibilities: Graduates will use the principles and theories of science, engineering, and mathematics to solve technical problems in research and development, manufacturing, sales, construction, inspection, and maintenance.

NEW ACADEMIC DEGREE PROGRAM PROPOSAL SUMMARY

February 26, 2010

I. Prepared by Institution

Institution/Location: Ivy Tech Community College at South Bend

Program: A.S. in Engineering Technology

	Year 1 FY2010	Year 2 FY2011	Year 3 FY2012	Year 4 FY2013	Year 5 FY2014
Enrollment Projections (Headcount)					
Full-Time	6	10	12	12	12
Part-Time	10	16	19	20	20
Total	16	26	31	32	32
Enrollment Projections (FTE)					
Full-Time	6	10	12	12	12
Part-Time	5	8	9	10	10
Total	11	18	21	22	22
Degree Completions Projection	0	0	1	4	8
New State Funds Requested (Actual) *	-0-	-0-	-0-	-0-	-0-
New State Funds Requested (Increases) *	-0-	-0-	-0-	-0-	-0-

II. Prepared by CHE

New State Funds To Be Considered For Recommendation (Actual) *	-0-	-0-	-0-	-0-	-0-
New State Funds To Be Considered For Recommendation (Increases) *	-0-	-0-	-0-	-0-	-0-

CHE Code:10-09
 Campus Code: 8423
 County: St. Joseph
 Degree Level:03
 CIP Code: Federal – 150000; State – 150000

* Excludes new state dollars that may be provided through enrollment change funding.

NEW ACADEMIC DEGREE PROGRAM PROPOSAL SUMMARY

February 26, 2010

I. Prepared by Institution

Institution/Location: Ivy Tech Community College at Kokomo

Program: A.S. in Engineering Technology

	Year 1 FY2010	Year 2 FY2011	Year 3 FY2012	Year 4 FY2013	Year 5 FY2014
Enrollment Projections (Headcount)					
Full-Time	<u>5</u>	<u>8</u>	<u>10</u>	<u>10</u>	<u>10</u>
Part-Time	<u>5</u>	<u>8</u>	<u>10</u>	<u>10</u>	<u>10</u>
Total	<u>10</u>	<u>16</u>	<u>20</u>	<u>20</u>	<u>20</u>
Enrollment Projections (FTE)					
Full-Time	<u>5</u>	<u>8</u>	<u>10</u>	<u>10</u>	<u>10</u>
Part-Time	<u>2</u>	<u>4</u>	<u>5</u>	<u>5</u>	<u>5</u>
Total	<u>7</u>	<u>12</u>	<u>15</u>	<u>15</u>	<u>15</u>
Degree Completions Projection	<u>0</u>	<u>0</u>	<u>1</u>	<u>3</u>	<u>5</u>
New State Funds Requested (Actual) *	<u>-0-</u>	<u>-0-</u>	<u>-0-</u>	<u>-0-</u>	<u>-0-</u>
New State Funds Requested (Increases) *	<u>-0-</u>	<u>-0-</u>	<u>-0-</u>	<u>-0-</u>	<u>-0-</u>

II. Prepared by CHE

New State Funds To Be Considered For Recommendation (Actual) *	<u>-0-</u>	<u>-0-</u>	<u>-0-</u>	<u>-0-</u>	<u>-0-</u>
New State Funds To Be Considered For Recommendation (Increases) *	<u>-0-</u>	<u>-0-</u>	<u>-0-</u>	<u>-0-</u>	<u>-0-</u>

CHE Code:10-09

Campus Code: 10041

County: Howard

Degree Level:03

CIP Code: Federal – 150000; State – 150000

* Excludes new state dollars that may be provided through enrollment change funding.

NEW ACADEMIC DEGREE PROGRAM PROPOSAL SUMMARY

February 26, 2010

I. Prepared by Institution

Institution/Location: Ivy Tech Community College at Muncie

Program: A.S. in Engineering Technology

	Year 1 FY2010	Year 2 FY2011	Year 3 FY2012	Year 4 FY2013	Year 5 FY2014
Enrollment Projections (Headcount)					
Full-Time	8	13	15	16	16
Part-Time	15	24	29	30	30
Total	23	37	44	46	46
Enrollment Projections (FTE)					
Full-Time	8	13	16	16	16
Part-Time	7	11	14	14	14
Total	15	24	30	30	30
Degree Completions Projection	0	0	2	5	11
New State Funds Requested (Actual) *	-0-	-0-	-0-	-0-	-0-
New State Funds Requested (Increases) *	-0-	-0-	-0-	-0-	-0-

II. Prepared by CHE

New State Funds To Be Considered For Recommendation (Actual) *	-0-	-0-	-0-	-0-	-0-
New State Funds To Be Considered For Recommendation (Increases) *	-0-	-0-	-0-	-0-	-0-

CHE Code:10-09

Campus Code: 9924

County: Delaware

Degree Level:03

CIP Code: Federal – 150000; State – 150000

* Excludes new state dollars that may be provided through enrollment change funding.

NEW ACADEMIC DEGREE PROGRAM PROPOSAL SUMMARY

February 26, 2010

I. Prepared by Institution

Institution/Location: Ivy Tech Community College at Richmond

Program: A.S. in Engineering Technology

	Year 1 FY2010	Year 2 FY2011	Year 3 FY2012	Year 4 FY2013	Year 5 FY2014
Enrollment Projections (Headcount)					
Full-Time	<u>10</u>	<u>16</u>	<u>19</u>	<u>20</u>	<u>20</u>
Part-Time	<u>10</u>	<u>16</u>	<u>19</u>	<u>20</u>	<u>20</u>
Total	<u>208</u>	<u>32</u>	<u>38</u>	<u>40</u>	<u>40</u>
Enrollment Projections (FTE)					
Full-Time	<u>10</u>	<u>16</u>	<u>19</u>	<u>20</u>	<u>20</u>
Part-Time	<u>5</u>	<u>8</u>	<u>9</u>	<u>10</u>	<u>10</u>
Total	<u>15</u>	<u>24</u>	<u>28</u>	<u>30</u>	<u>30</u>
Degree Completions Projection	<u>0</u>	<u>0</u>	<u>2</u>	<u>5</u>	<u>10</u>
New State Funds Requested (Actual) *	<u>-0-</u>	<u>-0-</u>	<u>-0-</u>	<u>-0-</u>	<u>-0-</u>
New State Funds Requested (Increases) *	<u>-0-</u>	<u>-0-</u>	<u>-0-</u>	<u>-0-</u>	<u>-0-</u>

II. Prepared by CHE

New State Funds To Be Considered For Recommendation (Actual) *	<u>-0-</u>	<u>-0-</u>	<u>-0-</u>	<u>-0-</u>	<u>-0-</u>
New State Funds To Be Considered For Recommendation (Increases) *	<u>-0-</u>	<u>-0-</u>	<u>-0-</u>	<u>-0-</u>	<u>-0-</u>

CHE Code:10-09

Campus Code: 10037

County: Wayne

Degree Level:03

CIP Code: Federal – 150000; State – 150000

* Excludes new state dollars that may be provided through enrollment change funding.

NEW ACADEMIC DEGREE PROGRAM PROPOSAL SUMMARY

February 26, 2010

I. Prepared by Institution

Institution/Location: Ivy Tech Community College at Columbus

Program: A.S. in Engineering Technology

	Year 1 FY2010	Year 2 FY2011	Year 3 FY2012	Year 4 FY2013	Year 5 FY2014
Enrollment Projections (Headcount)					
Full-Time	8	13	15	16	16
Part-Time	10	16	19	20	20
Total	18	29	34	36	36
Enrollment Projections (FTE)					
Full-Time	8	13	16	16	16
Part-Time	5	8	9	10	10
Total	13	21	25	26	26
Degree Completions Projection	0	0	2	4	9
New State Funds Requested (Actual) *	-0-	-0-	-0-	-0-	-0-
New State Funds Requested (Increases) *	-0-	-0-	-0-	-0-	-0-

II. Prepared by CHE

New State Funds To Be Considered For Recommendation (Actual) *	-0-	-0-	-0-	-0-	-0-
New State Funds To Be Considered For Recommendation (Increases) *	-0-	-0-	-0-	-0-	-0-

CHE Code:10-09

Campus Code: 10038

County: Bartholomew

Degree Level:03

CIP Code: Federal – 150000; State – 150000

* Excludes new state dollars that may be provided through enrollment change funding.

NEW ACADEMIC DEGREE PROGRAM PROPOSAL SUMMARY

February 26, 2010

I. Prepared by Institution

Institution/Location: Ivy Tech Community College at Evansville

Program: A.S. in Engineering Technology

	Year 1 FY2010	Year 2 FY2011	Year 3 FY2012	Year 4 FY2013	Year 5 FY2014
Enrollment Projections (Headcount)					
Full-Time	<u>4</u>	<u>6</u>	<u>8</u>	<u>8</u>	<u>8</u>
Part-Time	<u>10</u>	<u>16</u>	<u>19</u>	<u>20</u>	<u>20</u>
Total	<u>14</u>	<u>22</u>	<u>27</u>	<u>28</u>	<u>28</u>
Enrollment Projections (FTE)					
Full-Time	<u>4</u>	<u>6</u>	<u>8</u>	<u>8</u>	<u>8</u>
Part-Time	<u>5</u>	<u>8</u>	<u>9</u>	<u>10</u>	<u>10</u>
Total	<u>9</u>	<u>14</u>	<u>17</u>	<u>18</u>	<u>18</u>
Degree Completions Projection	<u>0</u>	<u>0</u>	<u>1</u>	<u>3</u>	<u>7</u>
New State Funds Requested (Actual) *	<u>-0-</u>	<u>-0-</u>	<u>-0-</u>	<u>-0-</u>	<u>-0-</u>
New State Funds Requested (Increases) *	<u>-0-</u>	<u>-0-</u>	<u>-0-</u>	<u>-0-</u>	<u>-0-</u>

II. Prepared by CHE

New State Funds To Be Considered For Recommendation (Actual) *	<u>-0-</u>	<u>-0-</u>	<u>-0-</u>	<u>-0-</u>	<u>-0-</u>
New State Funds To Be Considered For Recommendation (Increases) *	<u>-0-</u>	<u>-0-</u>	<u>-0-</u>	<u>-0-</u>	<u>-0-</u>

CHE Code:10-09
 Campus Code: 9925
 CountyVanderburgh
 Degree Level:03
 CIP Code: Federal – 150000; State – 150000

* Excludes new state dollars that may be provided through enrollment change funding.

NEW ACADEMIC DEGREE PROGRAM PROPOSAL SUMMARY

February 26, 2010

I. Prepared by Institution

Institution/Location: Ivy Tech Community College at Bloomington

Program: A.S. in Engineering Technology

	Year 1 FY2010	Year 2 FY2011	Year 3 FY2012	Year 4 FY2013	Year 5 FY2014
Enrollment Projections (Headcount)					
Full-Time	12	19	23	24	24
Part-Time	6	10	12	12	12
Total	18	29	35	36	36
Enrollment Projections (FTE)					
Full-Time	12	19	23	24	24
Part-Time	3	5	6	6	6
Total	15	24	29	30	
Degree Completions Projection	0	0	2	5	9
New State Funds Requested (Actual) *	-0-	-0-	-0-	-0-	-0-
New State Funds Requested (Increases) *	-0-	-0-	-0-	-0-	-0-

II. Prepared by CHE

New State Funds To Be Considered For Recommendation (Actual) *	-0-	-0-	-0-	-0-	-0-
New State Funds To Be Considered For Recommendation (Increases) *	-0-	-0-	-0-	-0-	-0-

CHE Code:10-09

Campus Code: 35213

County: Monroe

Degree Level:03

CIP Code: Federal – 150000; State – 150000

* Excludes new state dollars that may be provided through enrollment change funding.