

## ConnSCU ACADEMIC COUNCIL

### **AGENDA**

Wednesday, February 13, 2013 - 39 Woodland St., Hartford, CT 06105

### Joint Session: CCs, CSUs and COSC Academic Officers

1:00 p.m. - 3:00 p.m.

- 1. Approval of Minutes
- 2. ConnSCU Library System Integration

Carl Antonucci, Directory, CCSU Library Patricia Banach, Director, ECSU Library Lisa Laboie, Director, TXCC Library

- 3. Consent Agenda
  - a. Modification BA/BS Liberal Studies (Southern CSU)
  - b. Termination Communication Certificate (Tunxis CC)
  - c. Termination Community Health Worker Certificate (Quinebaug Valley CC)
  - d. Termination Aviation Maintenance AS (Quinebaug Valley CC)
  - e. Termination Arts Entrepreneur Certificate (Quinebaug Valley CC)
  - f. Termination Wastewater Certificate (Naugatuck Valley CC)
- 4. Concept Papers
  - a. Computer-Aided Design (CAD) Certificate (Quinebaug Valley CC)
  - b. Technology Studies: Advanced Manufacturing Option (Quinebaug Valley CC)
  - c. Health Care Administration (BS) (Charter Oak State College)
- 5. Information Item
  - a. Undergraduate Minor in Astrobiology (Central CT State University)
- 6. Discussion
  - a. TAP Implementation Section II.b.- designated competency courses
  - b. Assessment policy
- 7. Updates
  - a. Multi-State Collaborative to measure student learning
  - b. CACG and Bridges contracts
  - c. Smarter Balanced Assessment Consortium
  - d. Ability-based transcripts
  - e. Regional strategies groups
  - f. NEBHE Developmental Math Project

### **Breakout Sessions: CCs / CSUs**

## DRAFT ConnSCU Academic Council Joint Session Minutes – January 9, 2013

Present: Shirley Adams (COSC), Stephen Adair (FAC/CCSU), Mary Ann Affleck (CCC), Patricia Bouffard (NWCC), Ann Branchini (TRCC), Amy Sue DeSonia (QVCC), Pamela Edington (NCC), Rhona Free (ECSU), Braden Hosch (BOR), Marianne Kennedy (SCSU), Mark Kosinski (GCC), David Levinson (BOR), Carl Lovitt (CCSU), Jane Gates (WCSU), Barbara McCarthy (ACC), Maureen McClay (BOR), Steven Minkler (MXCC), Elsa Nunez (BOR), Sandra Palmer (NVCC) (by conf.), Michael Rooke (TXCC), Elizabeth Roop (HCC), Joanne Russell (MCC), Malia Sieve (BOR)

Meeting was called to order at 1:07 p.m. by Braden Hosch

Announcement was made that Joanne Russell would be leaving Manchester Community College for a new position with Westchester Community College.

1. Minutes were approved with edit of two typos.

Order of agenda items changed.

### 5. Updates

Update on TAP Core Competencies Steering Committee and Faculty Advisory Committee's recommendation for its continuation as a standing committee. Dr. Hosch introduced Stephen Adair, Chair of the Faculty Advisory Committee. Dr. Adair noted the recommendation from the Core Competencies Steering Committee. He stated that the work of the committee was stellar and had been a successful collaboration. He understood there were concerns of unnecessary layers but benefits of recommendation include having people on campus for response to questions and issues, a need for a formal committee, a need to continue review of outcomes and competencies, and the need for many ongoing decisions.

Dr. Gates appreciated work of committee but noted initial charge was completed and new concerns will be campus-specific. Dr. Russell noted faculty membership on committee was recommended specifically for core competencies and on-going needs would require different faculty recommendations. Discussion followed noting pathways committees now in place are addressing needs at this time and the important distinction between core competencies and general competencies. Members of pathways committees were chosen carefully. There may be a future need for oversight and issue could be revisited. General consensus was standing committee of core competencies steering members not appropriate at this time, however, all were appreciative and complimentary of the work done.

### 2. New Program Proposals

a. Technology Studies: Computer Engineering Technology Option – Middlesex CC Dr. Minkler gave a brief overview of new proposal previously submitted as a concept paper. It was moved and seconded (Rooke/Adams) and unanimously approved.

### 3. Concept Paper

a. Veterinary Technology – Norwalk CC

Dr. Edington described the program noting it was to serve a specific geographic area and had the support of local veterinarians. There was discussion regarding the number of credits that will be required but it was in line with other programs now in place. There was general discussion on types of programs requiring prerequisites and resulting in many additional credits. Dr. Hosch commented revised forms now being devised may make some issues clearer.

### 4. Discussion items

- a. New Program Approval. Dr. Hosch distributed a hand-out and noted the subcommittee had met members included academic and finance people. Information included enrollment information, costing, indirect costs and revenue. Discussion ensued on the focuses. One issue to be determined will be who will do reviews system academic area, finance area or a collaboration of both or institutions' finance people. The item will continue to be addressed.
- b. Program Review. Dr. Hosch summarized process in place. Data on all programs will be examined, looking at enrollments and completions. Report will be shared with Academic Council before going to the Board. Further discussion continued on the Delaware study survey (CSUs) and the Kansas study survey (CCCs).
- c. Multi-State Collaborative for Assessment. Dr. Hosch provided overview noting it grew out of a Massachusetts project. Eight states were identified to participate in pilot although funds have not yet been identified. Our system has been asked to participate in an upcoming conference and three people will attend. Information will be reported back.
- d. NESSC Collegiate Endorsement of Proficiency-based Graduation. Ms. Sieve reported the group has been meeting for the last couple years to support states and to improve college-readiness. This request is asking institutions to sign endorsements of willingness to accept students coming with proficiency-based transcripts. Discussion ensued noting ongoing development and conversations at campuses. Ms. Sieve noted there is much interest in K-12 although K-8 is accepted more easily with 9-12 systems having more concerns re college acceptance. Ms. Sieve will have an agenda next month and will provide more information.
- e. Directory Information Policy. Dr. Hosch summarized the issue of FERPA requirements for directory information. The immediate question is the use of community colleges using Banner ID's for computer log-in. The broader question is the use of a single policy across the system. A hand-out summarized the present policies at each of the ConnSCU institutions as well as UConn. After much discussion, Dr. Hosch noted he will get further information from IT and our Legal Department and send information to the Council. The issue is also on the agenda of the BOR's Academic & Student Affairs Committee.

There was no further business. The meeting adjourned at 3:05 p.m.

NEXT MEETING DATE: February 13, 2013 39 Woodland Street – Board Conference Room 123 Hartford, CT

APPLICATION FOR MODIFICATION OF ACCREDITED PROGRAM (Public Higher Education Institutions) - 01/20/12

### **SECTION 1: GENERAL INFORMATION**

**Institution:** SCSU Date of Submission to BOR Office: 2/1/2013

Most Recent NEASC Institutional Accreditation Action and Date: continued accreditation; April 2012

### **Original Program Characteristics**

CIP Code No. 24.0101 Title of CIP Code: Liberal Studies

CIP Year: 2000

Name of Program: Liberal Studies
Degree: Title of Award (e.g. Master of Arts)
Bachelor of Arts; Bachelor of Science
Certificate: (specify type and level) N/A
Date Program was Initiated: circa 1987

Modality of Program: x On ground Total # Cr the Institution Requires to Award the Credential (i.e. include program credits,

GenEd, other): 120

### **Original Program Credit Distribution**

# Cr in Program Core Courses:

BA Liberal Studies: 36 BS Liberal Studies: 54 # Cr of Electives in the Field:

BA Liberal Studies: varies according to minors BS Liberal Studies: varies according to minors

# Cr of Free Electives:

BA Liberal Studies: varies according to minors
BS Liberal Studies: varies according to minors
# Cr Special Requirements (include internship, etc.): 0
Total # Cr in the Program (sum of all #Cr above): 0

From "Total # Cr in the Program" above, enter #Cr that are part of/belong in an already approved program(s) at the

institution: 120

Type of Program Modification Approval Being Sought (mark all that apply):

x <u>Licensure and Accreditation</u> (specify whether New Certificate, Minor, Option, Concentration, or Other):

modifying existing degree options from BA Liberal Studies and BS Liberal Studies to

BA Interdisciplinary Studies, BS Interdisciplinary Studies, BA General Studies

- x Significant Modification of Courses/Course Substitutions: addition of one 3-credit capstone course
- x <u>Change of Degree Title or Program Title</u>: change of degree titles from BA Liberal Studies and BS Liberal Studies to BA Interdisciplinary Studies, BS Interdisciplinary Studies, and BA General Studies

### **Modified Program Characteristics**

Name of Program: Liberal Studies

Degree: Title of Award (e.g. Master of Arts)

BA Interdisciplinary Studies BS Interdisciplinary Studies

**BA General Studies** 

Certificate <sup>1</sup>: (specify type and level) N/A Program Initiation Date: fall 2013 Modality of Program: x On ground

Total # Cr the Institution Requires to Award the Credential (i.e.

include program credits, GenEd, other): 120

### **Modified Program Credit Distribution**

# Cr in Program Core Courses: BA Interdisciplinary Studies: 36

BS Interdisciplinary Studies: 54

BA General Studies: 24

# Cr of Electives in the Field:

BA Interdisciplinary Studies: varies according to minors BS Interdisciplinary Studies: varies according to minors BA General Studies: varies according to concentration

# Cr of Free Electives:

BA Interdisciplinary Studies: varies according to minors BS Interdisciplinary Studies: varies according to minors BA General Studies: varies according to concentration # Cr Special Requirements (include internship, etc.): 3

<u>Total # Cr in the Program</u> (sum of all #Cr above): **120** From "Total # Cr in the Program" above, enter #Cr that are part of/belong in an already approved program(s) at the institution: N/A

<sup>&</sup>lt;sup>1</sup> If creating a Certificate program from existing courses belonging to a previously approved baccalaureate/associate degree program, enter information such that program in the "Original Program" section.

APPLICATION FOR MODIFICATION OF ACCREDITED PROGRAM (Public Higher Education Institutions) - 01/20/12

If program modification is concurrent with discontinuation of related program(s), please list for such program(s):

### **Program Discontinued:**

When all currently enrolled BA and BS Liberal Studies degree students have moved into one of the modified LBS programs or graduated from their current program

CIP: 24.0101 DHE# (if available): 000645 Accreditation Date: N/A

### Phase Out Period:

3-5 years. Students entering in fall 2013 will enroll in a BA General Studies or a BA or BS Interdisciplinary Studies program; current students will receive individualized academic advising and choose whether to finish their current program or move into one of the modified degree options.

### Date of Program Termination:

When all students who chose to remain in a BA or BS Liberal Studies program and maintained continuous enrollment have graduated.

Institution's Unit (e.g. School of Business) and Location (e.g. main campus) Offering the Program: School of Arts and Sciences, main campus

### Other Program Accreditation:

- If seeking specialized/professional/other accreditation, name of agency and intended year of review: N/A
- If program prepares graduates eligibility to state/professional license, please identify: N/A

(As applicable, the documentation in this request should addresses the standards of the identified accrediting body or licensing agency)

Institutional Contact for this Proposal: Dr. Marianne Kennedy

Title: Interim Provost and Vice President for

Academic Affairs

Tel.: (203) 392-5350

e-mail: kennedym4@southernct.edu

### BOR REVIEW STATUS (For Office Use Only - please leave blank)

BOR Sequence Number (to be assigned):

Approved 2010 CIP Code No. <sup>2</sup> (if applicable)

Title of CIP Code

Log of BOR Steps Towards Program Approval:

Nature and Resolution number for BOR Approval:

Date of Approval:

Conditions for Approval (if any)

Final CIP assignment will be done by BOR staff in consideration of suggested number (if provided) and in consultation with administrative offices at the institution and system proposing the program. For the final assignment, the 2010 CIP definitions will be used.

APPLICATION FOR MODIFICATION OF ACCREDITED PROGRAM (Public Higher Education Institutions) - 01/20/12

### SECTION 2: BACKGROUND, RATIONALE AND NATURE OF MODIFICATION

(Please Complete Sections as Applicable)

**Background and Rationale** (Please provide the context for and need for the proposed modification, and the relationship to the originally approved program)

### Background and Rationale to Designate three Liberal Studies degree programs:

a. the Interdisciplinary Studies BA: BA-Liberal Studies (IDS)

b. the Interdisciplinary Studies BS: BS-Liberal Studies (IDS)

c. the General Studies BA: BA-Liberal Studies (GEN)

The "liberal" in Liberal Studies is derived from the Latin *liber*, meaning "free"—both in body (a free person versus a slave) and in mind (socially and politically). Liberal Studies programs—from the first MA degree in Liberal Studies implemented at Wesleyan in 1953 to those currently being implemented in Hong Kong's, the Philippines', and Singapore's secondary schools—are premised on the belief that freeing students to seek knowledge across disciplinary boundaries produces life-long independent learners with the flexibility to continually adapt to a rapidly changing economy over the course of their working lives.

In practice, however, Liberal Studies programs in US universities have attracted not only highly-motivated independent learners. They have also attracted students whose GPAs are too low to gain entrance to their major of choice, students who cannot pass a "gateway" course (often math-based) or other required course in their major of choice, and students who have changed institutions and/or majors several times without making decisive progress toward a degree.

Southern is no different in this regard. In the past ten years, SCSU's Liberal Studies Program has attracted more and more of the latter types of students, to the point that neither student population is well-served by the existing program. The proposed changes will create separate degree programs for these two student populations in order to better meet the needs of both.

### As applicable, please describe:

How does the program address CT workforce needs and/or the wellbeing of CT society/communities? (Succinctly present as much factual evidence and evaluation of stated needs as possible)

The Interdisciplinary Studies BA and BS will support students who wish to combine several minors and/or or construct their own areas of study in order to pursue self-defined interests that are not fully served by SCSU's existing majors. The Liberal Studies Program Coordinator, Academic Advising Coordinator, and IDS 401W faculty members will operate from the assumption that Interdisciplinary Studies students can, with supportive academic advising and IDS 401W capstone seminar, develop into rigorous, innovative, and independent problem-solvers who will be competitive in a global economy.

The General Studies BA will support students who are experiencing difficulty finishing their degree for one or more reasons: they are returning to SCSU after an extended absence during which their general education and major requirements have undergone significant changes; they have been unable to achieve the GPA needed for one or more majors of choice; they have been unable to pass a "gateway" course in their major of choice after several attempts. The Liberal Studies Program Coordinator, Academic Advising Coordinator, and IDS 401W faculty members will operate from the assumption that many General Studies students can, with careful academic advising and a structured IDS 401W capstone seminar experience, achieve a level of academic performance that merits a bachelor's degree and equips students with skills and strategies that will increase their employability and level of civic contribution after graduation.

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How does the program make use of the strengths of the institution (e.g. curriculum, faculty, resources) and of its distinctive character and/or location?

Quantitative data formally collected by SCSU Institutional Research and qualitative data informally noted by the Academic Advising Coordinator and the Academic Advising Center staff provided the impetus for the degree program modifications proposed here, the development of the IDS 401W Capstone Seminar course added to the modified programs, and the restructuring of the former 3cr/semester Liberal Studies coordinator position to the current 6cr/semester Liberal Studies director position.

The Liberal Studies Program Director is also developing new promotional materials designed to help students package existing minors into coherent degree programs and to support worthy programs with space for more students. Discussions with Science Education and Environmental Studies faculty Dr. Susan Cusato, Dr. Vince Breslin, and Dr. James Tait suggest, for example, that many of their students become Liberal Studies majors by virtue of combining the existing environmental studies and marine studies minors; the Liberal Studies Program can do more to promote this option and thus support students with interests in science teaching, research, or applied science careers. SCSU is currently supporting and encouraging global teaching and learning initiatives. The Liberal Studies Program will play a larger role in supporting students' global awareness and ability to navigate and thrive in a rapidly globalizing world. The IDS 401W capstone course added to all three-degree programs is organized around the issue of globalization, reflecting this issue's particular relevance for students pursuing interdisciplinary degree programs. To further support students' education as prepared global citizens, the Liberal Studies Program will also promote trios of minors that combine a foreign language minor and an area studies minor with a third minor, (i.e., Spanish/Latin American Studies/Political Science or German/German Studies/Business Administration).

In addition, the data suggest that certain populations of students can benefit from the Liberal Studies program developing additional defined options for them. A Director of Liberal Studies receiving 6cr of reassigned time per semester is in a position to facilitate the development of these options. At least half of SCSU's pre-Nursing students, for example, are unable to gain admittance to the BSN program, due to the limited number of seats. Many of these well-qualified students go to other universities. Institutional Research has produced a report that attempts to show what happens to students who are denied admittance to the program. At present many leave SCSU, while others stay; of those who stay, many go to Public Health, and some to Liberal Studies. Developing new minors that would take advantage of the significant post- general education coursework they completed in math and the sciences as part of their BSN program prerequisites could help retain many of these well-qualified students by allowing them to continue preparing for a health sciences-related career. The LBS Program Director is working with Health and Human Services Dean Greg Paveza and Department of Nursing Chair Dr. Lisa Rebeschi to determine how many Nursing students would be interested in Liberal Studies options that combined minors in the sciences, public health, and another clinical field such as social work.

The data suggest that Elementary Education majors would also benefit from improved degree options in Liberal Studies. The LBS Program Director is working with the School of Education in order to develop this improved option for Elementary Education majors. The new LBS option under development would allow Elementary Education majors to complete several core courses in each of the four "report card" subjects—language arts, math, science, and social studies—identified and offered by the relevant departments in the School of Arts and Sciences. Currently, Elementary Education majors double major in Elementary Education and typically major in one "report card subject" (i.e., English, math, earth science, history). While students can currently create their own interdisciplinary minor that achieves a similar effect, the proposed content major below allows departments to define what the content courses will be in each subject. This program in development both eliminates the need for each student to "reinvent the wheel" and ensures that students are taking the courses that are most suitable to prepare them to be strong early childhood and elementary-level teacher candidates.

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Please describe any transfer agreements with other institutions under the BOR that will become instituted as a result of the approval of this program (*Please highlight details in the Quality Assessment portion of this application, as appropriate*)

Transfer students will receive individual academic advising that reflect the directives of the ConnSCU Transfer Articulation Policy.

Please indicate what similar programs exist in other institutions within your constituent unit <sup>3</sup>, and how unnecessary duplication is being avoided

The proposed program does not duplicate existing programs within the constituent unit (CSU). ECSU offers a Bachelor of Special Studies through its School of Continuing Education for adult learners only. WCSU offers an Associate-level Degree in Liberal Arts, but does not offer a Bachelor-level degree. The CCSU Special Studies major bears the closest resemblance to the proposed modified SCSU Liberal Studies program. CCSU offers a Special Studies B.A. and B.S. to students able to demonstrate that no existing major meets their needs. However, CCSU Special Studies majors may or may not incorporate an existing minor, while SCSU Liberal Studies degree programs must incorporate at least one existing minor and limit students to one self-designed minor in their degree program; this difference is a reflection of SCSU's Liberal Studies program intended learning outcome #3 (see below) that students develop advanced knowledge and skills in two or three disciplines or minor areas of study and #4 (see below) that students develop their awareness of the differences in objects of study, major theories, terminology, and methodology between disciplines.

Please provide a description/analysis of employment prospects for graduates of this proposed program

Readers of section 1.c of the Description of Modification (below) will note that in the revised program some B.A. General Studies students (25 years of age or older, with a minimum of five years' paid work experience in subject areas taught at SCSU and additional substantive non-paid learning experiences such as volunteer activities and noncredit training), with approval of the LBS Director and LBS Academic Advising Coordinator in consultation with the LBS Committee, may substitute CTR 300: Cooperative Education of 3 or more credits for IDS 401W. These options lay the groundwork for the Liberal Studies Program to provide a broader range of service learning and internship experiences for LBS students to use as a bridge to specific post-graduation career goals.

The LBS Program Director is also forming a Liberal Studies Advisory Committee comprised of representatives from regional employers in the non-profit, education, health care, manufacturing, biotechnology, and pharmaceuticals fields. The LBS Advisory Committee would work with the LBS Program Director to build relationships with specific employers that could provide a range of service-learning and internship options for LBS students to incorporate into their programs of study. In addition, the LBS Program Director plans to work more closely with Cooperative Education Program Director Pat Whelan in order to better publicize CTR options for Liberal students and advisors and increase the number of students arranging for CTR credit prior to, rather than following, an eligible workplace experience.

**Description of Modification** (Please provide a summary of the modifications to curriculum, admissions or graduation requirements, mode of delivery etc., and concisely describe how the institution will support these changes.

Revised Program Proposal: Liberal Studies

The following revisions to the existing program are proposed:

<sup>&</sup>lt;sup>3</sup> Constituent units are: the Connecticut Community College System, the Connecticut State University System, Charter Oak State College, and the University of Connecticut

APPLICATION FOR MODIFICATION OF ACCREDITED PROGRAM (Public Higher Education Institutions) - 01/20/12

1. Designate three Liberal Studies degree programs:

a. the Interdisciplinary Studies BA: BA-Liberal Studies (IDS)

b. the Interdisciplinary Studies BS: BS-Liberal Studies (IDS)

c. the General Studies BA: BA-Liberal Studies (GEN)

2. Add a 3cr capstone course, IDS 401W: Capstone Seminar in Interdisciplinary Studies, to the requirements for each degree program (with alternatives and exceptions as noted below).

### Description of 1.a and b: Proposed Structure for the Interdisciplinary Studies BA and BS programs

Students with a GPA of 2.0 or higher will be eligible for the BA or BS in Interdisciplinary Studies. To graduate, students must

- Complete a minimum of 120 credits
- Maintain a 2.0 or higher overall GPA and a 2.0 GPA in each minor
- Satisfy all AUR or LEP requirements for the BA or BS degree (depending upon which general education program
  they were admitted under)
- Satisfy requirements for two (BA) or three (BS) areas based on existing 18-credit university minor requirements (or self-designed 18-credit interdisciplinary minors). Students may not select more than one minor from the same discipline.
- Gain approval for self-designed interdisciplinary minor(s) from the Liberal Studies Program Coordinator and Liberal Studies Academic Advising Coordinator\* prior to completion of more than 9 credits in the proposed minor and completion of more than 60 credits overall (75 credits for transfer students)
  - \* In some cases a faculty member from a related academic discipline serving on the Liberal Studies Committee or invited to serve as an ad hoc consultant to the LBS committee may approve a self-designed minor.
- Complete at least 36 credits at the 300 level or higher
- Complete IDS 401W: Capstone Seminar in Interdisciplinary Studies\*

\*with the approval of the LBS Coordinator, students may substitute a 300- or 400-level writing intensive (W) or tier 3 LEP capstone course in one of their minor areas for IDS 401W. This course will be in addition to the required 18cr in the minor area.

### Description of 1.c: Proposed Structure for the General Studies program

Students with 60 credits or more and a GPA of 2.0 or higher will be eligible for the BA in General Studies. To graduate, students must

- Complete a minimum of 120 credits
- Maintain a 2.0 or higher GPA
- Satisfy all AUR or LEP requirements for the BA or BS degree (depending upon which general education program
  they were admitted under)

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- Gain approval for an identified 24 credit area of themed concentration in their coursework with the Liberal Studies Program Coordinator and Liberal Studies Academic Advising Coordinator\*, of which 15 credits must be at the 300 level or higher, and maintain a 2.0 or higher GPA in the theme
  - \* In some cases a faculty member from a related discipline serving on the Liberal Studies Committee or invited to serve as ad hoc consultant to the LBS committee may approve a theme.
- Complete at least 36 credits at the 300 or 400 level
- Complete IDS 401W: Capstone Seminar in Interdisciplinary Studies\*\*
  - \*\* Students 25 years of age or older, with a minimum of five years' paid work experience in subject areas taught at SCSU and additional substantive non-paid learning experiences such as volunteer activities and non-credit training, may apply for an IDS 401W exemption from the Liberal Studies Program Coordinator and Liberal Studies Academic Advising Coordinator. To earn an exemption, students will need to provide documentation of their experience and make a 5-10pp. written argument that demonstrates proficiency in writing and supports their claim of IDS 401W-equivalent learning outcomes. IDS 401W exemptions will carry no course credit.

Description of 2. Add a 3cr capstone course, IDS 401W: Capstone Seminar in Interdisciplinary Studies, to the requirements for both concentrations.

Neither student population currently has a substantive capstone experiences. The IDS 401W Capstone Seminar is designed to provide Interdisciplinary Studies and General Studies students with a methodological framework and structured research experience that shows them how to bring together their disparate areas of study to formulate original lines of inquiry, research complex problems, and propose solutions. The final project may be a written proposal, or it may be a product/deliverable in the public service, educational, technological, multi-media, fine arts, or entrepreneurial domains; all final projects will include an accompanying self-evaluation essay. Students will be encouraged to develop projects that will allow them to transition into a specific post-graduation career path.IDS 401W will include a public presentation of final work. IDS 401W will be open to students in other degree programs with the permission of the Liberal Studies Program Coordinator and Liberal Studies Academic Advising Coordinator.

**Description of Resources Needed** (As appropriate please summarize faculty and administrative resources, library holdings, specialized equipment, etc. Details to be provided in the next section, as appropriate)

6 credits reassigned time per semester for Director of Liberal Studies

Previous Three Years Enrollment and Completion for the Program being Modified

ACTUAL Enrollment	First Term, Y	ear _2009-10_	First Term, Year _2010-11_		First Term, Year _2011-12_	
	Full Time	Part Time	Full Time	Part Time	Full Time	Part Time
Internal Transfers	112	39	198	41	263	49
New Students	15	1	38	4	55	2
Returning Students	48	17	85	18	113	21
ACTUAL Headcount Enrollment	175	57	321	63	431	72
ACTUAL FTE per Year						
Size of Credentialed Group for Given Year	132		1	63	202	

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Course Number and Name 5	L.O. #	Pre- Requisite	Cr Hrs	Course Number and Name	L.O. #	Cr Hrs
Program Core Courses				Other Related/Special Requirements		
IDS 401 W: Capstone Seminar in Interdisciplinary Studies			3			
Core Course Prerequisites				Elective Courses in the Field		
Varies depending on minors (BA and BS Ir Studies) or concentration (BA General Studies)		olinary		Varies depending on minors (BA and BS Interdisciplinary Studies) or concentration (BA General Studies)		

**Learning Outcomes** - L.O. (Please list up to seven of the most important student learning outcomes for the program, and any changes introduced)

- 1. Allow students to combine disciplines/minor areas of study in ways that help them achieve personal and professional learning goals
- 2. Improve critical reading, writing, and thinking abilities
- 3. Develop advanced knowledge and skills in two or three disciplines/minor areas of study
- Develop their awareness of the differences in objects of study, major theories, terminology, and methodology between disciplines
- 5. Foster life-long learning
- 6. Prepare students to navigate a rapidly changing global economy over the course of their working lives

### SECTION 3: RESOURCE AND FINANCIAL CONSIDERATIONS

Two-Year Cost Effectiveness and Availability of Adequate Resources

(Please provide attach a Pro-Forma Budget for the modification of program in the format provided)

Please see SCSU Modification of an Accredited Program and Resource Cost Analysis.xlsx (also below).

<sup>&</sup>lt;sup>4</sup> Details of course changes for Community College institutions should be provided with enough detail to introduce necessary changes in the centralized programmatic database for that system.

<sup>&</sup>lt;sup>5</sup> Make any detail annotations for individual courses as needed to understand the curricular modifications taking place

CONNECTICUT BOARD OF REGENTS FOR HIGHER EDUCATION

APPLICATION FOR MODIFICATION OF ACCREDITED PROGRAM (Public Higher Education Institutions) - 01/20/12

### **CT Board of Regents for Higher Education**

ACCREDITATION OF A LICENSED PROGRAM - RESOURCES AND COST ESTIMATES 1/20/12 Form

InstitutionSouthern Connecticut State UniversityLicensed ProgramLiberal Studies Program

Date 2/1/2013

ACTUAL Enrollment	First Term Year 1 - Fall 13 & Spring 14		First Term Year 2 - Fall 14 & Spring 15		First Term Year 3 - Fall 15 & Spring 16	
	Full Time	Part Time	Full Time	Part Time	Full Time	Part Time
Internal Transfers	293	56	262	65	199	66
New Students	63	5	102	34	204	82
Returning Students	126	24	174	43	199	66
ACTUAL Headcount Enrollment	482	85	538	142	602	214
ACTUAL FTE per Year						
PROJECTED FTE (at Licensing)						
ACTUAL-PROJECTED	0		0		0	
Size of First Credentialed Group			Date of Award	d of First Credential		

Estimated Program Revenue	First Term Year 1 - Fall 13 & Spring 14		First Term Year 2 - Fall 14 & Spring 15		First Term Year 3 - Fall 15 & Spring 16	
	Full Time	Part Time	Full Time	Part Time	Full Time	Part Time
Tuition (Do not include internal transfers) (1) & (2)	\$129,086	\$16,333	\$144,083	\$27,285	\$161,223	\$41,120
Program Specific Fees						
Other Rev. (Annotate in text box below)						
ACTUAL Program Revenue	\$145,419		\$171,368		\$202,343	
PROJECTED Rev. (at Licensing)	\$145,419		\$171,368		\$202,343	
Dif. ACTUAL-PROJECTED	\$0		\$0		\$0	

Estimated Expenditures*	First Term Year 1 - F	all 13 & Spring 14	First Term Year 2 - Fall 14 & Spring 15		First Term Year 3 - Fall 15 & Spring	
	Number (as applicable)	Expenditure	Number	Expenditure	Number	Expenditure
Administration (Chair or Coordinator)						
Faculty (full-time, total for program)						
Faculty (Total for program) (3) & (4)	6.00	\$33,750	7.00	\$39,375	8.00	\$45,000
Support Staff						
Library Resources Program						
Equipment (List if needed)						
Other (e.g. student services)						
Estimated Indirect Cost (e.g. student services, operations,						
maintanance)						
Total Annual Expenditures		\$33,750		\$39,375		\$45,000

<sup>\*</sup> Note: Capital outlay costs, institutional spending for research and service, etc. can be excluded.

### Please provide any necessary annotations:

- (1) Though Capstone Seminars taken by full time students will not result in incremental revenue, for illustration purposes here, the full time revenue is estimated by pro-rating full time tuition (not including fees); i.e., \$4,285 / 12 credits X 3 credits = \$1,071 per full time student.
- (2) It is assumed that 25% of full time students and 15% of part time students will take the Capstone Seminar each year.
- (3) Capstone Seminars are limited to 23 students each and are expected to be taught by full time faculty. Faculty teaching costs are calculated assuming the back fill cost of adjunct faculty covering those classes from which full time faculty (teaching the Capstone Seminars) are reassigned.
- (4) Adjunct costs are estimated at 3 credits x \$1,500 + \$375 F/B = \$1,875 per credit = \$5,625 per course.

APPLICATION FOR DISCONTINUATION OF EXISTING PROGRAM (Public Higher Education Institutions) - 01/20/12

**SECTION 1: GENERAL INFORMATION** 

Institution: Tunxis Community College Date of Submission to BOR Office: 1/4/2013

Discontinued Program: Communication Certificate CIP: 090101

DHE# (if available): 02854 Accreditation Date: 09/28/1994

Phase Out /Teach Out Period 12-18 months Expected Date of Program Termination Spring 2014

**Program Characteristics** 

Name of Program: Communication Certificate Degree: Title of Award (e.g. Master of Arts)

Certificate: (specify type and level) Communication, undergraduate

Online X Combined Modality of Program: On ground

Institution's Unit (e.g. School of Business) and Location (e.g. main campus) Offering the Program: Humanities Dept.

Institutional Contact for this Proposal:

Dean of Academic Michael A. Rooke, Ph.D.

mrooke@tunxis.edu

Tel.: 860-255-3615 e-mail:

Affairs

### BOR REVIEW STATUS (For Office Use Only - please leave blank)

Title:

BOR Sequence Number (to be assigned):

Log of BOR Steps Towards Discontinuation Approval:

Date of Approval: Resolution number for BOR Approval:

Conditions for Discontinuation Approval (if any)

APPLICATION FOR DISCONTINUATION OF EXISTING PROGRAM (Public Higher Education Institutions) - 01/20/12

### SECTION 2: RATIONALE AND JUSTIFICATION FOR PROGRAM DISCONTINUATION

### **Narrative**

Please consider whether discontinuation a) occurs in the context of a related academic improvement, e.g., the merging of programs with declining enrollment/completions into a new program that effectively addresses relevant state needs and students' interests; b) emerge as a result of the periodic Academic Program Review for all programs at each institution, under the guidance of existing BOR policy; c) other institutional considerations such as redirecting capacity, adoption of new mission, etc. Provide any quantitative information in support of the discontinuation, including any relevant financial information. Program discontinuation should not impact state priorities for workforce preparation.

Interest in the Tunxis Communication Certificate has declined over a number of years and it has become apparent that our certificate does not assist students in securing employment in the field of communication. First, although broadcast and sound engineer positions presently require only an A.S. degree according to the most recent U.S. Bureau of Labor Statistics' Occupational Outlook Handbook, Tunxis does not have the necessary production equipment or studio facility to offer such a program. Students who wish to develop their skills in engineering positions, video production or broadcast journalism would be better served to attend either Manchester or Middlesex Community College which have the necessary resources including production equipment and studio space. Indeed, it is the production positions our students seem to be most interested in. Second, the U.S. Bureau of Labor Statistics' Occupational Outlook Handbook reports that communication positions such as public relations managers, editors, including film and video editors, interpreters, and technical writers require a minimum of a Bachelor's degree. For students who plan to pursue a bachelor's degree through transfer, our certificate does not significantly benefit them. In fact, they would be better served to matriculate in our Liberal Arts & Sciences or General Studies degree programs and enroll in our writing and communication courses to develop and strengthen written and oral communication competencies. All of the certificate courses (with the exception of Advertising & Promotion, which is no longer offered but is now replaced by BMK 245 Integrated Marketing Communications) are available to take in connection with a General Studies or Liberal Arts & Sciences degree.

### Phase Out/Teach Out Strategy

Please describe how the institution will ensure that students currently enrolled will be provided opportunities to complete the program. Provide quantitative information as needed (e.g. enrollments, any special resources needed, etc.)

With the exception of BMK 230 Advertising and Promotion, all courses will continue to be available to students. Students who have already enrolled can either take BMK 245 Integrated Marketing Communications or substitute a number of relevant courses, such as COM 211, COM 201, NMC 220 for BMK 230 so that they can obtain the Certificate in Communication.

APPLICATION FOR DISCONTINUATION OF EXISTING PROGRAM (Public Higher Education Institutions) - 01/20/12

**SECTION 1: GENERAL INFORMATION** 

Date of Submission to BOR Office: **Institution**: Quinebaug Valley Community College

Discontinued Program: CIP: DHE# (if available): Accreditation Date:

Phase Out /Teach Out Period **Expected Date of Program Termination** 

**Program Characteristics** 

Name of Program: Community Health Worker Degree: Title of Award (e.g. Master of Arts)

Certificate: (specify type and level)

Combined Modality of Program: x On ground Online

Institution's Unit (e.g. School of Business) and Location (e.g. main campus) Offering the Program: Danielson

**Institutional Contact for this Proposal:** 

Title: Dean of **Academic Affairs** Dr. Amy Sue DeSonia

Tel.: (860) 412-7260 e-mail: adesonia@qvcc.commnet.edu

BOR REVIEW STATUS (For Office Use Only - please leave blank)

BOR Sequence Number (to be assigned):

Log of BOR Steps Towards Discontinuation Approval:

Resolution number for BOR Approval: Date of Approval:

Conditions for Discontinuation Approval (if any)

APPLICATION FOR DISCONTINUATION OF EXISTING PROGRAM (Public Higher Education Institutions) - 01/20/12

### SECTION 2: RATIONALE AND JUSTIFICATION FOR PROGRAM DISCONTINUATION

### **Narrative**

Please consider whether discontinuation a) occurs in the context of a related academic improvement, e.g., the merging of programs with declining enrollment/completions into a new program that effectively addresses relevant state needs and students' interests; b) emerge as a result of the periodic Academic Program Review for all programs at each institution, under the guidance of existing BOR policy; c) other institutional considerations such as redirecting capacity, adoption of new mission, etc. Provide any quantitative information in support of the discontinuation, including any relevant financial information. Program discontinuation should not impact state priorities for workforce preparation.

This program currently has no one matriculating (or having specified it) in this path. There have only been 2 graduates of the program since its inception in 2006.

### Phase Out/Teach Out Strategy

Please describe how the institution will ensure that students currently enrolled will be provided opportunities to complete the program. Provide quantitative information as needed (e.g. enrollments, any special resources needed, etc.)

There are no students that are currently matriculating (or have specified this program) in this path – thus a traditional teachout period and strategy are not necessary.

APPLICATION FOR DISCONTINUATION OF EXISTING PROGRAM (Public Higher Education Institutions) - 01/20/12

**SECTION 1: GENERAL INFORMATION** 

Institution: Quinebaug Valley Community College Date of Submission to BOR Office: 02/01/2013

Discontinued Program: Associate of Science: Aviation Maintenance CIP: DHE# (if available):

Accreditation Date:

Phase Out /Teach Out Period Earliest allowed by Board policy Expected Date of Program Termination Immediately

**Program Characteristics** 

Name of Program: Aviation Maintenances

Degree: Title of Award (e.g. Master of Arts) Associate of Science

Certificate: (specify type and level)

Modality of Program: X On ground Online Combined

Institution's Unit (e.g. School of Business) and Location (e.g. main campus) Offering the Program: Danielson campus

**Institutional Contact for this Proposal**: Dr. Amy Sue

DeSonia

Title: Dean of Academic Affairs

Tel.: 860.412.7260 e-mail: adesonia@qvcc.commnet.edu

### BOR REVIEW STATUS (For Office Use Only - please leave blank)

BOR Sequence Number (to be assigned):

Log of BOR Steps Towards Discontinuation Approval:

Resolution number for BOR Approval: Date of Approval:

Conditions for Discontinuation Approval (if any)

APPLICATION FOR DISCONTINUATION OF EXISTING PROGRAM (Public Higher Education Institutions) - 01/20/12

### SECTION 2: RATIONALE AND JUSTIFICATION FOR PROGRAM DISCONTINUATION

### **Narrative**

Please consider whether discontinuation a) occurs in the context of a related academic improvement, e.g., the merging of programs with declining enrollment/completions into a new program that effectively addresses relevant state needs and students' interests; b) emerge as a result of the periodic Academic Program Review for all programs at each institution, under the guidance of existing BOR policy; c) other institutional considerations such as redirecting capacity, adoption of new mission, etc. Provide any quantitative information in support of the discontinuation, including any relevant financial information. <u>Program discontinuation should not impact state priorities for workforce preparation</u>.

This program has not had significant enrollments and few graduates since the program core courses stopped being delivered in the area.

### Phase Out/Teach Out Strategy

Please describe how the institution will ensure that students currently enrolled will be provided opportunities to complete the program. Provide quantitative information as needed (e.g. enrollments, any special resources needed, etc.)

There are no students currently matriculating in this program/major and none proposed for entry. Thus, the phase-out period requested would be the minimum allowed under Board policy.

APPLICATION FOR DISCONTINUATION OF EXISTING PROGRAM (Public Higher Education Institutions) - 01/20/12

**SECTION 1: GENERAL INFORMATION** 

Institution: Quinebaug Valley Community College Date of Submission to BOR Office: 02/01/2013

Discontinued Program: Arts Entrepreneur certificate CIP: DHE# (if available): Accreditation Date: Phase Out /Teach Out Period Earliest allowed by Board policy Expected Date of Program Termination Immediately

**Program Characteristics** 

Name of Program: Arts Entrepreneur Degree: Title of Award (e.g. Master of Arts)

Certificate: (specify type and level)

Modality of Program: X On ground Online Combined

Institution's Unit (e.g. School of Business) and Location (e.g. main campus) Offering the Program: Danielson campus

Institutional Contact for this Proposal: Dr. Amy Sue

DeSonia

Title: Dean of Academic Affairs

Tel.: 860.412.7260 e-mail: adesonia@qvcc.commnet.edu

### BOR REVIEW STATUS (For Office Use Only - please leave blank)

BOR Sequence Number (to be assigned):

Log of BOR Steps Towards Discontinuation Approval:

Resolution number for BOR Approval: Date of Approval:

Conditions for Discontinuation Approval (if any)

APPLICATION FOR DISCONTINUATION OF EXISTING PROGRAM (Public Higher Education Institutions) - 01/20/12

### SECTION 2: RATIONALE AND JUSTIFICATION FOR PROGRAM DISCONTINUATION

### **Narrative**

Please consider whether discontinuation a) occurs in the context of a related academic improvement, e.g., the merging of programs with declining enrollment/completions into a new program that effectively addresses relevant state needs and students' interests; b) emerge as a result of the periodic Academic Program Review for all programs at each institution, under the guidance of existing BOR policy; c) other institutional considerations such as redirecting capacity, adoption of new mission, etc. Provide any quantitative information in support of the discontinuation, including any relevant financial information. Program discontinuation should not impact state priorities for workforce preparation.

This program has not had significant enrollments and few graduates since inception (2 grads in the last 5 years).

### Phase Out/Teach Out Strategy

Please describe how the institution will ensure that students currently enrolled will be provided opportunities to complete the program. Provide quantitative information as needed (e.g. enrollments, any special resources needed, etc.)

There are no students currently matriculating in this program/major and none proposed for entry. Thus, the phase-out period requested would be the minimum allowed under Board policy.

APPLICATION FOR DISCONTINUATION OF EXISTING PROGRAM (Public Higher Education Institutions) - 01/20/12

**SECTION 1: GENERAL INFORMATION** 

Institution: Naugatuck Valley Community College Date of Submission to BOR Office: 1/24/2013

Discontinued Program: Wastewater Certificate CIP: 15.0506 DHE# (if available): 007640 Accreditation Date: 9/1/2000

Phase Out /Teach Out Period none Expected Date of Program Termination Spring 2013

**Program Characteristics** 

Angelastro

Name of Program: Wastewater Certificate

Degree: Title of Award (e.g. Master of Arts) Undergraduate Certificate (C2)

Certificate: (specify type and level) Undergraduate Certificate (C2)

Modality of Program: X On ground Online Combined

Institution's Unit (e.g. School of Business) and Location (e.g. main campus) Offering the Program: Engineering Technologies

Title: Academic

Division Director

Science, Technology,

Engineering and Mathematics

Tel.: (203) 596-8690

e-mail: pangelastro@nv.edu

BOR REVIEW STATUS (For Office Use Only - please leave blank)

BOR Sequence Number (to be assigned):

Log of BOR Steps Towards Discontinuation Approval:

Institutional Contact for this Proposal: Peter S.

Resolution number for BOR Approval: Date of Approval:

Conditions for Discontinuation Approval (if any)

APPLICATION FOR DISCONTINUATION OF EXISTING PROGRAM (Public Higher Education Institutions) - 01/20/12

### SECTION 2: RATIONALE AND JUSTIFICATION FOR PROGRAM DISCONTINUATION

### **Narrative**

Please consider whether discontinuation a) occurs in the context of a related academic improvement, e.g., the merging of programs with declining enrollment/completions into a new program that effectively addresses relevant state needs and students' interests; b) emerge as a result of the periodic Academic Program Review for all programs at each institution, under the guidance of existing BOR policy; c) other institutional considerations such as redirecting capacity, adoption of new mission, etc. Provide any quantitative information in support of the discontinuation, including any relevant financial information. <u>Program discontinuation should not impact state priorities for workforce preparation</u>.

Enrollments have typically been zero or one student in recent years. No students have completed the program since it was accredited.

Wastewater Certificate

Banner Code: HN03 DHE Number 07640

Headcount Enrollment	Fall 2010	Fall 2011	Fall 2012
	0	0	1
Completions	2010-11	2011-12	2012-13
	0	0	0

### Phase Out/Teach Out Strategy

Please describe how the institution will ensure that students currently enrolled will be provided opportunities to complete the program. Provide quantitative information as needed (e.g. enrollments, any special resources needed, etc.)

The program will be terminated immediately. If a student is still registered in Spring 2013, he or she will be counseled into another program.

CONCEPT PAPER FOR NEW ACADEMIC PROGRAM (Public Higher Education Institutions) -01/20/12

SECTION 1: GENERAL INFORMATION 1 2							
Institution: Quinebaug Valley Community College	Date of Submission x	\$\$\$\$\\$\#\@\$!////////////////////////////////////					
Most recent MEAS Clustiful what Acetechter with Action and Date							
Program Characteristics	Program Credit Distr	ibution					
Name of Program: Computer Aided Design (CAD) Certificate	# Cr in Program Core	Courses: 9					
Degree: Title of Award (e.g. Master of Arts)	# Cr of Electives in the	Field: 15					
Certificate: (specify type and level)	# Cr of Free Electives:						
Anticipated Program Initiation Date: Fall 2013	# Cr Special Requirem	ents (include internship, etc.): 3					
Anticipated Date of First Graduation: Fall 2014	Total # Cr in the Progra	am (sum of all #Cr above): 27					
Modality of Program: X On ground Online Combined If "Combined", % of fully online courses?  Total # Cr the Institution Requires to Award the Credential (i.e. include program credits, GenEd, other): 27		From "Total # Cr in the Program" above, enter #Cr that are part of/belong in an already approved program(s) at the					
Type of Approval Action Being Sought: Licensure OR X Suggested CIP Code No. (optional) Title of CIP Code	Licensure and Accreditat  CIP Year: 2000						
If establishment of the new program is concurrent with disconting Program Discontinued:  CIP: DHE# (if available)  Phase Out Period Date of Program Termination							
Institution's Unit (e.g. School of Business) and Location (e.g. main	campus) Offering the Pro	gram:					
Program Accreditation:  • If seeking specialized/professional/other accreditation, name of agency and intended year of review:  • If program prepares graduates eligibility to state/professional license, please identify:  (As applicable, the documentation in this request should addresses the standards of the identified accrediting body or licensing agency)							
Institutional Contact for this Proposal: Dr. Amy Sue	Title: Dean of	Tel.: 860.412.7260 e-mail:					
DeSonia	Academic Affairs	adesonia@qvcc.commnet.edu					
BOR-AC REVIEW and Follow Up	(For BOR Office Use Only - pleas	se leave blank)					
BOR Concept Paper Sequence Number (to be assigned): Summary of BOR-AC Comments and Recommendations:							

Log of Follow Up Steps:

**Expected Date of Full Proposal:** 

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<sup>&</sup>lt;sup>1</sup> This Concept Paper can be considered the first draft of your new program proposal. Providing accurate and concrete information will facilitate further steps. Please neglect cells that have been shaded with a pattern or text that has been crossed out. These items can be completed in the full proposal document.

completed in the full proposal document.

<sup>2</sup> Further details and information may be required at the institution level (e.g., Academic Dean, Provost) or system level (e.g., officer in charge of a centralized programmatic database). As appropriate, this additional information should be included in this Concept Paper.

CONCEPT PAPER FOR NEW ACADEMIC PROGRAM (Public Higher Education Institutions) -01/20/12

### SECTION 2: PROGRAM PLANNING ASSESSMENT (To be used in BOR Review Only)

### Alignment of Program with Institutional Mission, Role and Scope

(Please provide objective and concise statements)

The Certificate in CAD will be a direct feed into the College of Technology's (COT) degree program of Technology Studies: CAD Option. The certificate exists in the system and has been performing well as a gateway to the degree program. The content of the certificate will contain the Technology Management and Specialization Core classes of the Technology Studies: CAD Option degree. These courses include specified "CAD" prefixed classes utilizing software such as Chief Architect, AutoCAD, Solids Mechanical / Pro-Engineer, plus key technology classes in Rapid Prototyping which take the electronic software data and translates into a physical prototype via Additive Manufacturing equipment which we employ at QVCC. Furthermore, coursework in manufacturing (MFG) will also provide classes that the student can select from to customize the certificate towards his/her academic goal. The MFG courses include Drafting, Blueprint Reading I and II, Geometric Design & Tolerancing, and the aforementioned Rapid Prototyping. Students will select up to 12 credits of CAD / MFG courses (not already required) to complete the 24 credits. Finally, an three credit EGR course in Material Science is required.

### Addressing Identified Needs

- How does the program address CT workforce needs and/or the wellbeing of CT society/communities? (Succinctly present as much factual evidence and evaluation of stated needs as possible)
   CAD designers are in high demand. Many big employers in eastern CT have posted jobs for people with CAD skills.
  - CAD designers are in high demand. Many big employers in eastern C1 have posted jobs for people with CAD skills. Many times, companies are more interested in the skills obtained in a certificate than a candidate who has earned an associate degree.
- How does the program make use of the strengths of the institution (e.g. curriculum, faculty, resources) and of its distinctive character and/or location?
  - No additional resources are necessary at this time. This new certificate will directly feed our associate degree in CAD.
- Please describe any transfer agreements with other institutions under the BOR that will become instituted as a result of
  the approval of this program (*Please highlight details in the Quality Assessment portion of this application, as appropriate*)
   All COT articulations already in place for the associate degree graduate with requisite GPA.
- Please indicate what similar programs exist in other institutions within your constituent unit <sup>3</sup>, and how unnecessary duplication is being avoided.
  - Many if not all institutions that have the COT CAD degree also offer the certificate. This would align us with that standard and better serve our students.
  - Please provide a description/analysis of employment prospects for graduates of this proposed program

    This Certificate in CAD will first serve students interested in design and development (this term is broad referring to product, tooling, fixtures, building spaces, etc.) The landscape of this field is an every evolving process with new software and technology released at a rapid pace. The demand in industry for workers with knowledge of current software and their implementation in advanced manufacturing practices are evident by job placement of graduates, students still in the program completing coursework, and student enrollment from companies sending personnel to get this knowledge back to the company. The Technology Studies: CAD Option degree is one of the highest enrolled programs under the COT umbrella and with QVCC just recently launching this option, the next logical step to serve the students would be to offer this certificate.

### Cost Effectiveness and Availability of Adequate Resources

(Please provide a short narrative that generally considers projections of program enrollment and graduation, revenues and expenses, existing and needed resources, including faculty and administrative cost, and any major cost implications)

<sup>&</sup>lt;sup>3</sup> Constituent units are: the Connecticut Community College System, the Connecticut State University System, Charter Oak State College, and the University of Connecticut

CONCEPT PAPER FOR NEW ACADEMIC PROGRAM (Public Higher Education Institutions) -01/20/12

CONCEPT PAPER FOR NEW ACADEMIC PROGRAM (Public Higher Education Institutions) -01/20/12

# SECTION 3: PROGRAM QUALITY ASSESSMENT Overall Learning Goal/Principal Learning Outcome for the Program: \*\*Vedoring Volketines\*\* - A.O.\* (Please is Yun Xusun Airland Airland

CONCEPT PAPER FOR NEW ACADEMIC PROGRAM (Public Higher Education Institutions) -01/20/12

### Curriculum

(Please provide details as available and keep in mind the summary of Program Credit Distribution completed in Section 1. Modify this format as needed) (Please list courses for the proposed program, including the core/major area of specialization, prerequisites, electives, required general education courses (undergraduate programs), etc. Using numerals, map the Learning Outcomes listed in the previous section to relevant program courses in this table. Mark any new courses with an asterisk \* and attach course descriptions. Mark any courses that are delivered fully online with a double asterisk \*\* Please modify this format as needed)

Course Number and Name		Pre- Requisite	Cr Hrs	Course Number and Name		Cr Hrs
Program Core Courses	1///			Other Related/Special Requirements	7///	
MFG126 Drafting	////		3	MAT137 Intermediate Algebra		3
CAD110 Intro to AutoCAD		MFG126	3			
EGR118 Material Science		MAT137	3			
	1///					
Core Course Prerequisites				Elective Courses in the Field		
				CAD or MFG Electives		15
Total Other Credits Required to Issue Cre	dential (e	.g. GenEd/Lib	oeral Arts (	Core/Liberal Ed Program)		18

**Program Outline** (Please provide a summary of program requirements including total number of credits for the degree, special admission requirements, capstone or special project requirements, etc. Indicate any requirements and arrangements for clinical affiliations, internships, and practical or work experience.)

This 27 credit certificate will create a new area of emphases for the College of Technology, providing an area of specialty for students who wish to go into a (CAD) design career and / or pursue a an associate or baccalaureate degree through the COT Pathways program. The certificate can also serve as a career-oriented credential for students wishing to obtain employment as a designer. Currently there is a shortage of qualified designers with the requisite CAD skills both in Connecticut and nationally. A survey conducted of over forty companies in Connecticut verifies this demand. Furthermore, with the development of advanced manufacturing techniques and virtual machining software developments, the need for qualified designers and skilled software personnel will certainly grow. All credits (27) for this certificate are in the Technology & Management and Specialized electives portions of the proposed Associate of Science: Technology Studies – Advanced Manufacturing option.

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<sup>&</sup>lt;sup>4</sup> From the Learning Outcomes enumerated list provided at the beginning of Section 3 of this application

CONCEPT PAPER FOR NEW ACADEMIC PROGRAM (Public Higher Education Institutions) -01/20/12

Full-Time Faculty Teaching in this Program (Note: If you anticipate hiring new faculty members for this program you may list "to be hired" under name and title. Provide required credentials, experience, and other responsibilities for each new position anticipated over the first three years of implementation of the program)

Faculty Name and Title	Institution of Highest Degree	Area of Specialization/Pertinent Experience	Other Administrative or Teaching Responsibilities

CONCEPT PAPER FOR NEW ACADEMIC PROGRAM (Public Higher Education Institutions) -01/20/12

SECTION 1: GENER	AL INFORMATION 1 2							
Institution: Quinebaug Valley Community College	DEG DE SON DE SO							
Most reference as the substitution at the substitution and some								
Program Characteristics								
Name of Program: Technology Studies: Advanced Manufacturing Option  Degree: Title of Award (e.g. Master of Arts) Associate of Applied Science  Certificate: (specify type and level)  Anticipated Program Initiation Date: Fall 2013  Anticipated Date of First Graduation: Spring 2015  Modality of Program: On ground Online X Combined If "Combined", % of fully online courses? 6%	Program Credit Distribution # Cr in Program Core Courses: 15 # Cr of Electives in the Field: 24 # Cr of Free Electives: # Cr Special Requirements (include internship, etc.): 27 Total # Cr in the Program (sum of all #Cr above): 66 From "Total # Cr in the Program" above, enter #Cr that are part of/belong in an already approved program(s) at the institution: 66							
Total # Cr the Institution Requires to Award the Credential (i.e. include program credits, GenEd, other): 66								
Type of Approval Action Being Sought: Licensure OR Licensure and Accreditation  Suggested CIP Code No. (optional) Title of CIP Code CIP Year: 2000 or 2010								
If establishment of the new program is concurrent with discontinuation of related program(s), please list for each program:  Program Discontinued: Technology Studies: Plastics CIP: DHE# (if available): Accreditation Date:  Phase Out Period 2 years Date of Program Termination Spring 2015  Program Discontinued: Technology Studies: CIP: DHE# (if available): Accreditation Date:  Phase Out Period 2 years Date of Program Termination Spring 2015								
Institution's Unit (e.g. School of Business) and Location (e.g. main	campus) Offering the Program: Danielson campus							
<ul> <li>Program Accreditation:</li> <li>If seeking specialized/professional/other accreditation, name of agency and intended year of review:</li> <li>If program prepares graduates eligibility to state/professional license, please identify:</li> <li>(As applicable, the documentation in this request should addresses the standards of the identified accrediting body or licensing agency)</li> </ul>								
, , , , , , , , , , , , , , , , , , ,	Title: Dean of Tel.: 860.412.7260 e-mail: adesonia@qvcc.commnet.edu							
DOD 40 DEL/IEM 15 11 11								
·	(For BOR Office Use Only - please leave blank)							
BOR Concept Paper Sequence Number (to be assigned): Summary of BOR-AC Comments and Recommendations:								

Log of Follow Up Steps:

Expected Date of Full Proposal:

<sup>1</sup> This Concept Paper can be considered the first draft of your new program proposal. Providing accurate and concrete information will facilitate further steps. Please neglect cells that have been shaded with a pattern or text that has been crossed out. These items can be completed in the full proposal document.

<sup>&</sup>lt;sup>2</sup> Further details and information may be required at the institution level (e.g., Academic Dean, Provost) or system level (e.g., officer in charge of a centralized programmatic database). As appropriate, this additional information should be included in this Concept Paper.

CONCEPT PAPER FOR NEW ACADEMIC PROGRAM (Public Higher Education Institutions) -01/20/12

### SECTION 2: PROGRAM PLANNING ASSESSMENT (To be used in BOR Review Only)

Alignment of Program with Institutional Mission, Role and Scope

(Please provide objective and concise statements)

Program Mission: The Connecticut state College of Technology - Technology Studies degrees exist to provide transfer options to receiving 4-year institutions, as well as terminal options for more immediate workforce development. As such, they continue to carry out the Quinebaug Valley Community College mission to provide innovative educational, social, and cultural opportunities in a welcoming and supportive environment.

The purpose of this new technology studies: advanced manufacturing option is to provide students with a comprehensive general education in engineering technology, industrial technology, mathematics, and sciences, as provided by the standard Technology Studies program from the state College of Technology. This foundation is complemented by a content-specific focus that ensures depth of knowledge in one out of a few chosen fields. The curriculum will prepare students for immediate employment in a variety of manufacturing settings.

### Addressing Identified Needs

How does the program address CT workforce needs and/or the wellbeing of CT society/communities? (Succinctly present as much factual evidence and evaluation of stated needs as possible) Eastern Connecticut manufacturers account for 12% of manufacturing locations in the state. According to a recent study by the college of Technology (COT's Connecticut Survey of Manufacturing Workforce, 2011), the four most difficult positions to fill are CNC programmer, Tool and Die Makers, CNC Machinists, and CAD/CAM Technicians. Graduates of this program would have experience and skills from one or more of those fields. Further, 21% of CT's mid-level manufacturing workforces are missing technical skill, 68% of the state's manufacturing workforce presently trains existing workers, 60% are targeting a recruitment plan, 22% are developing or expanding an in-house apprenticeship program (COT's Connecticut Survey of Manufacturing Workforce, 2011), and 46% of Connecticut manufacturers are having trouble finding qualified workers (BlumShapiro's Survey of Connecticut Manufacturers). This program addresses those workforce needs.

How does the program make use of the strengths of the institution (e.g. curriculum, faculty, resources) and of its distinctive character and/or location? QVCC has a Manufacturing Technology Center (with its attendant machines, etc.), and this is the 2-year degree that will be available for students completing the machine technology level II certificate who wish to continue to complete a 2-year degree. All of the courses specific to this degree are already offered for our certificate programs, we already have faculty to teach them, and students already take them.

Please describe any transfer agreements with other institutions under the BOR that will become instituted as a result of the approval of this program (*Please highlight details in the Quality Assessment portion of this application, as appropriate*) The state College of Technology provides articulation paths from Technology Studies 2 year degrees to many receiving institutions. According to those existing agreements, this particular option would transfer into Central Connecticut State University's School of Technology or Charter Oak State College to qualify for earning a Bachelor of Science degree in degree in engineering technology, industrial technology, or technology education.

Please indicate what similar programs exist in other institutions within your constituent unit <sup>3</sup>, and how unnecessary duplication is being avoided avoided Currently, there are many technology studies options available at many

<sup>&</sup>lt;sup>3</sup> Constituent units are: the Connecticut Community College System, the Connecticut State University System, Charter Oak State College, and the University of Connecticut

CONCEPT PAPER FOR NEW ACADEMIC PROGRAM (Public Higher Education Institutions) -01/20/12

Connecticut Community Colleges. However, many of them transfer into the same degree options at Central Connecticut State University's School of Technology or Charter Oak State College. This Advanced Manufacturing option would supplant those existing options (reducing unnecessary duplication).

The usefulness of the 2-year degree in directly obtaining employment will not be lessened, as the student completing this option would also necessarily complete a certificate program in a specific area.

Please provide a description/analysis of employment prospects for graduates of this proposed program. Connecticut manufacturers account for 12% of manufacturing locations in the state. According to a recent study by the college of Technology (COT's Connecticut Survey of Manufacturing Workforce, 2011), the four most difficult positions to fill are CNC programmer, Tool and Die Makers, CNC Machinists, and CAD/CAM Technicians. Graduates of this program would have experience and skills from one or more of those fields. Further, 46% of CT manufacturers are having trouble finding qualified workers (BlumShapiro's Survey of Connecticut Manufacturers, 2011). There are good prospects for employment.

•

### Cost Effectiveness and Availability of Adequate Resources

(Please provide a short narrative that generally considers projections of program enrollment and graduation, revenues and expenses, existing and needed resources, including faculty and administrative cost, and any major cost implications)

CONCEPT PAPER FOR NEW ACADEMIC PROGRAM (Public Higher Education Institutions) -01/20/12

## SECTION 3: PROGRAM QUALITY ASSESSMENT Overall Learning Goal/Principal Learning Outcome for the Program: \*\*Vediction Outcomes\*\* - V.O.\* Askas\*\* ISAN ISAN SHIP Model in Program in the pr

CONCEPT PAPER FOR NEW ACADEMIC PROGRAM (Public Higher Education Institutions) -01/20/12

### Curriculum

(Please provide details as available and keep in mind the summary of Program Credit Distribution completed in Section 1.)

Course Number and Name		Pre- Requisite	Cr Hrs	Course Number and Name	1/4/	Cr Hrs
Program Core Courses	1///			General Education Core	1///	
MAT167 Principles of Statistics	1///		3	ENG101 Composition	1///	3
MAT186 Pre-calculus	1///		4	COM173 Public Communication	1111	3
CHE121 General Chemistry I			4	PHL111 Ethics		3
PHY121 General Physics I	1///		4	ECN102 Principles of	1111	3
			4	Macroeconomics		
				ENG102 Technical Writing		3
				History Elective		3
				Fine Arts Elective		3
				Social Science Elective		3
				Geography, Political Science, or History Elective		3
Core Course Prerequisites				Elective Courses in the Field		
				Technical Electives (Machine Technology Level II certificate; Plastics Technology certificate; Computer-Aided Design certificate)		24
Total Other Credits Required to Issue C	redential (e	.g. GenEd/Lik	oeral Arts (	Core/Liberal Ed Program)		27

**Program Outline** (Please provide a summary of program requirements including total number of credits for the degree, special admission requirements, capstone or special project requirements, etc. Indicate any requirements and arrangements for clinical affiliations, internships, and practical or work experience.)

The Technology Studies: Advanced Manufacturing option consists of a total of 66 credits. 27 credits are general education courses in the following disciplines: English, Social Sciences, and the Humanities. 15 credits are Science and Math core courses, and 24 credits are technical electives. Furthermore, completion of one of a subset of the technology certificate programs is required to graduate. Each of the courses in each of those technical certificates counts towards the technical elective credit requirement. The certificate programs to be accepted are:

Machine Technology Level II certificate

Plastics Technology certificate

Computer Aided Design (CAD) certificate

Program Admission requirements include:

- 1. Be a current student at Quinebaug Valley Community College.
- 2. Be enrolled in one of the accepted technology certificate programs.
- 3. Interview with College of Technology Program Coordinator, or their designee.

<sup>&</sup>lt;sup>4</sup> From the Learning Outcomes enumerated list provided at the beginning of Section 3 of this application

CONCEPT PAPER FOR NEW ACADEMIC PROGRAM (Public Higher Education Institutions) -01/20/12

Full-Time Faculty Teaching in this Program (Note: If you anticipate hiring new faculty members for this program you may list "to be hired" under name and title. Provide required credentials, experience, and other responsibilities for each new position anticipated over the first three years of implementation of the program)

Faculty Name and Title	Institution of Highest Degree	Area of Specialization/Pertinent Experience	Other Administrative or Teaching Responsibilities

CONCEPT PAPER FOR LICENSURE AND ACCREDITATION (Public Higher Education Institutions) - 01/20/12

Charter Oak State College proposes to seek licensure and accreditation of a program in Health Care Administration leading to a Bachelor of Science (B.S.) degree. The College is transforming an existing concentration in in Health Care Administration its General Liberal Arts and Sciences bachelor's program into a separate degree program. The proposed degree program will to provide professionals working in the health care industry with the knowledge required to create, implement and efficiently administer programs and services delivered by health care organizations.

**SUMMARY** 

Program Name: Health Care Administration (online)

Award: Bachelor of Science (BS)
Modality: Offered online only

CIP code: 51.0701 Health/Health Care Administration/Management

DHE number: Application, number pending

Credits required: 120 Total credits

42 credits program requirements
30 credits program core
6 credits program electives
6 credits program internship

40 credits general education

38 credits electives outside of the program and general education

Contact: Dana Wilkie, Dean, Tel.: 860-515-3835 e-mail: dwilkie@charteroak.edu

### **SECTION 1: GENERAL INFORMATION**

**Institution:** Charter Oak State College Date of Submission to BOR Office: 1/8/2013

Most Recent NEASC Institutional Accreditation Action and Date: 5 Year Review 2011

### **Original Program Characteristics**

CIP Code No. 24.0101 Title of CIP Code BA/BS CIP

Year: 2000 or 2010

Name of Program: BS/BA concentration in Health Care

Administration

Degree: Title of Award (e.g. Master of Arts) concentration

Certificate: (specify type and level)

Date Program was Initiated: 2004

Modality of Program: On ground x Online Combined

If "Combined", % of fully online courses?

Total # Cr the Institution Requires to Award the Credential (i.e. include program credits, GenEd, other): 120

### **Original Program Credit Distribution**

# Cr in Program Core Courses: 30

# Cr of Electives in the Field: 6

# Cr of Free Electives:

# Cr Special Requirements (include internship, etc.): 6

Total # Cr in the Program (sum of all #Cr above): 42

From "Total # Cr in the Program" above, enter #Cr that are part of/belong in an already approved program(s) at the

institution: 42

Type of Program Modification Approval Being Sought (mark all that apply):

x Licensure and Accreditation (specify whether New Certificate, Minor, Option, Concentration, or Other)

Significant Modification of Courses/Course Substitutions

Offering of Program at Off-Campus Location (specify new location)

Offering of Program Using an Alternate Modality (e.g. from on ground to online)

x Change of Degree Title or Program Title

CONCEPT PAPER FOR LICENSURE AND ACCREDITATION (Public Higher Education Institutions) - 01/20/12

**Modified Program Characteristics** 

Name of Program: Bachelor of Science in Health Care

Administration

Degree: Title of Award (e.g. Master of Arts) BS

Certificate <sup>1</sup>: (specify type and level)
Program Initiation Date: Fall 2013

Modality of Program: On ground **x** Online Combined

If "Combined", % of fully online courses?

Total # Cr the Institution Requires to Award the Credential (i.e.

include program credits, GenEd, other): 120

Other:

**Modified Program Credit Distribution** 

# Cr in Program Core Courses: 30

# Cr of Electives in the Field: 6

# Cr of Free Electives:

# Cr Special Requirements (include internship, etc.): 6

Total # Cr in the Program (sum of all #Cr above): 42

From "Total # Cr in the Program" above, enter #Cr that are part of/belong in an already approved program(s) at the

institution: 42

If program modification is concurrent with discontinuation of related program(s), please list for such program(s):

Program Discontinued: Concentration in Health Care Administration CIP:

DHE# (if available):

**Accreditation Date:** 

Phase Out Period Date of Program Termination Fall 2013

Institution's Unit (e.g. School of Business) and Location (e.g. main campus) Offering the Program: Main Campus

Other Program Accreditation:

• If seeking specialized/professional/other accreditation, name of agency and intended year of review:

If program prepares graduates eligibility to state/professional license, please identify:

(As applicable, the documentation in this request should addresses the standards of the identified accrediting body or licensing agency)

Institutional Contact for this Proposal: Dana Wilkie

Title: Dean

Tel.: 860-515-3835 e-mail: dwilkie@charteroak.edu

#### BOR REVIEW STATUS (For Office Use Only - please leave blank)

BOR Sequence Number (to be assigned):

Approved 2010 CIP Code No. <sup>2</sup> (if applicable)

Title of CIP Code

Log of BOR Steps Towards Program Approval:

Nature and Resolution number for BOR Approval:

Date of Approval:

Conditions for Approval (if any)

<sup>1</sup> If creating a Certificate program from existing courses belonging to a previously approved baccalaureate/associate degree program, enter information such that program in the "Original Program" section.

<sup>&</sup>lt;sup>2</sup> Final CIP assignment will be done by BOR staff in consideration of suggested number (if provided) and in consultation with administrative offices at the institution and system proposing the program. For the final assignment, the 2010 CIP definitions will be used.

CONCEPT PAPER FOR LICENSURE AND ACCREDITATION (Public Higher Education Institutions) - 01/20/12

#### SECTION 2: BACKGROUND, RATIONALE AND NATURE OF MODIFICATION

(Please Complete Sections as Applicable)

**Background and Rationale** (Please provide the context for and need for the proposed modification, and the relationship to the originally approved program)

The modification moves the concentration to a major. The Health Care Administration (HCA) concentration is one of Charter Oak's most selected subject-area concentrations. It is unique in that there are no other undergraduate concentrations or majors in HCA at the other CT state institutions. Changing it to a major will increase the value of the degree to the students. Students in the program select it because they are employed in the health care or related field and use it to advance professionally.

As applicable, please describe:

- How does the program address CT workforce needs and/or the wellbeing of CT society/communities? (Succinctly present as much factual evidence and evaluation of stated needs as possible) The program is for people already working in the health care industry.
- How does the program make use of the strengths of the institution (e.g. curriculum, faculty, resources) and of its distinctive character and/or location? It uses current resources—faculty and curriculum. It also draws upon the expertise of our director of the Health Information Management (HIM) program. There are no additional resources needed.
- Please describe any transfer agreements with other institutions under the BOR that will become instituted as a result of the approval of this program (*Please highlight details in the Quality Assessment portion of this application, as appropriate*) We already have transfer agreements in place with the community colleges.
- Please indicate what similar programs exist in other institutions within your constituent unit <sup>3</sup>, and how unnecessary duplication is being avoided. UCONN has an undergraduate major that leads to a BS in Business Administration; Western CT ST University and the University of New Haven have master's degrees; St. Vincent's has a 15 credit certificate.
  - Please provide a description/analysis of employment prospects for graduates of this proposed program. It is designed for people working in HCA. This data is from the DOL Occupational Outlook Handbook <a href="http://www.bls.gov/ooh/Management/Medical-and-health-services-managers.htm">http://www.bls.gov/ooh/Management/Medical-and-health-services-managers.htm</a>

Quick Facts: Medical and Health Services Managers

2010 Median Pay \$84,270 per year

\$40.52 per hour

Entry-Level Education Bachelor's degree

Work Experience in a Related Occupation None
On-the-job Training None

Number of Jobs, 2010 303,000

Job Outlook, 2010-20 22% (Faster than average)

Employment Change, 2010-20 68,000

**Description of Modification** (Please provide a summary of the modifications to curriculum, admissions or graduation requirements ,mode of delivery etc., and concisely describe how the institution will support these changes.

No modifications, except to change the wording on the medical terminology requirement. It will be listed as a 3 credit requirement.

**Description of Resources Needed** (As appropriate please summarize faculty and administrative resources, library holdings, specialized equipment, etc. Details to be provided in the next section, as appropriate)

<sup>&</sup>lt;sup>3</sup> Constituent units are: the Connecticut Community College System, the Connecticut State University System, Charter Oak State College, and the University of Connecticut

CONCEPT PAPER FOR LICENSURE AND ACCREDITATION (Public Higher Education Institutions) - 01/20/12

None needed

#### Other Considerations

We currently have 114 students in the HCA concentration. 52 graduated in the last 5 years.

Previous Three Years Enrollment and Completion for the Program being Modified

ACTUAL Enrollment	First Term,	Year 2010	First Term, Year 2011		First Term, Year 2012	
	Full Time	Part Time	Full Time	Part Time	Full Time	Part Time
Internal Transfers						
New Students	0	0	4	11	14	23
Returning Students	1	12	9	22	10	46
ACTUAL Headcount Enrollment	19 (6 matric, but not taking courses)		58 (12 matric, but not taking courses)		114 (21 matric, but not taking courses)	
ACTUAL FTE per Year	689 credits/30= 23 FTE		1161 credits/30 = 39 FTE			
Size of Credentialed Group for Given Year	l >	3		12		

CONCEPT PAPER FOR LICENSURE AND ACCREDITATION (Public Higher Education Institutions) - 01/20/12

Course Number and Name 5	L.O. #	Pre- Requisite	Cr Hrs	Course Number and Name	L.O. #	Cr Hrs
Program Core Courses				Program Core Courses		
HCA 101 Health Care Systems and Administration	1		3	HCA 450 Leadership in Health Care or MGT 450 Leadership Practices or MGT 451 Team Leadership	2	3
HCA 201 Health Care Quality Concepts	1,4,6,		3			
ACC 101 Financial Accounting			3			
HCA 211 Health Care Finance	4	ACC 101	3			
HCA 311 Health Care Economics	1,4,5		3			
HCA 301 Contemporary Ethical Issues	2,3		3			
HCA 401 Regulatory & Accrediting Req. IN HCA	3,6		3			
HCA 499 Capstone	1-7		3			
Core Course Co-requisites				Elective Courses in the Field		
HCA105 Medical Terminology			3	Approved electives in business, MIS, Informatics, HCA		6
MAT105 Statistics			3			

**Learning Outcomes** - L.O. (Please list up to seven of the most important student learning outcomes for the program, and any changes introduced) (No changes made.)

- 1. Describe the different types of health care delivery systems and services, including how health care quality is delivered, measured and monitored using research methods to assess customer service and client satisfaction
- 2. Discuss human service management, behaviors, diversity, policies and procedures, including teamwork, leadership skills and competencies
- Review legal and ethical responsibilities in the healthcare organization as they relate to patient/client rights
- 4. Describe economic factors and payment sources that influence health care decisions of the population served
- 5. Explain financial risk and risk to the organization through evaluation and interpretation of appropriate data and performance reports
- 6. Identify and apply regulatory and voluntary accrediting standards, process improvement accepts and principle and application to health care
- 7. Identify and apply strategic management principles and concepts

<sup>4</sup> Details of course changes for Community College institutions should be provided with enough detail to introduce necessary changes in the centralized programmatic database for that system.

<sup>&</sup>lt;sup>5</sup> Make any detail annotations for individual courses as needed to understand the curricular modifications taking place

CONCEPT PAPER FOR LICENSURE AND ACCREDITATION (Public Higher Education Institutions) - 01/20/12 SECTION 3: RESOURCE AND FINANCIAL CONSIDERATIONS

Two-Year Cost Effectiveness and Availability of Adequate Resources

(Please provide attach a Pro-Forma Budget for the modification of program in the format provided)

There are no budget implications. All the courses are developed. Faculty are paid per student so if additional sections would be needed, additional faculty cost is covered by tuition. We have a full time person with a Doctorate of Business Administration (DBA) with a specialization in Health Information Technology Management. Courses he has taught at various undergraduate and graduate programs include: The American Healthcare System, Healthcare Information Technologies, Managerial Economics, Accounting, and Statistics. He is currently working on his post-baccalaureate certificate in HIM to fulfill requirements to sit for licensure exam for the Registered Health Information Administrator (RHIA).

#### Non-Substantive Change from CCSU: Undergraduate Minor in Astrobiology

CCSU has approved through its curriculum process a new undergraduate minor in **Astrobiology**, designed for students who have majors in Biology, Biomolecular Science, Chemistry, Earth Science, or Physics.

#### 18 credits, as follows:

Core: ESCI 208 Planetary Astronomy (4)

BIO 121 or BMS 102/103 (4)

Capstone: ESCI 470 Extrasolar Planets and Astrobiology (3)

The remaining 7 credits will be selected from the following pre-approved electives or other electives as approved by an advisor in the minor:

BIO 200 General Biology III (4)

BIO 230 Natural History (2)

BIO 315 Microbial Ecology (4)

BIO 405 Ecology (4)

BIO 440 Evolution (3)

BMS 201 Principles of Cell and Molecular Biology (4)

BMS 316 Microbiology (4)

CHEM 210 Organic Chemistry I (3)

CHEM 211 Organic Chemistry I lab (1)

CHEM 212 Organic Chemistry II (3)

CHEM 213 Organic Chemistry II lab (1)

ESCI 209 Stellar and Galactic Astronomy (4)

ESCI 378 Comparative Planetology (3)

ESCI 478 Planetary Image Analysis(3)

Note that some electives have additional prerequisites.

Academic Rationale: Astrobiology is described by the NASA Astrobiology Institute (NAI) website as "the study of the origins, evolution, distribution, and future of life in the universe." As an interdisciplinary field, it requires an "integrated understanding of biological, planetary, and cosmic phenomena" including the "search for habitable environments in our Solar System and on planets around other stars" (http://astrobiology.nasa.gov/nai/education-and-outreach/astrobiology-career-path-suggestions). With the discovery of thousands of planets outside of our solar system, and improved technologies to investigate the surfaces of Mars and other bodies within our solar system, astrobiology has become a cutting-edge field that draws on the expertise of a number of scientific fields. When the first verifiable habitable planet is discovered beyond Earth, universities will be scrambling to create programs such as this. Due to the close relationships between the science departments, CCSU is poised to be at the forefront of this movement. Modeled on similar programs at the University of Kansas, Montana State University, Penn State University, Rensslaer Polytechnic Institute, and the University of Arizona, the CCSU Minor in Astrobiology will prepare science majors for graduate programs in astrobiology as well as careers in education (in both formal and informal settings). For example, the NAI website has 32 pages of current educational and career opportunities in astrobiology, not only in concert with NASA and universities, but also planetariums and museums, public school systems, and industry.

**Demand Rationale**: This program will be unique to the CONNSCU system in particular and higher education in Connecticut in general. It is expected to be popular with science majors in all programs (including teacher certification education majors).

**Faculty Effects**: The program builds on pre-existing courses in the sciences and only required the addition of one new course, that of the capstone course ESCI 470, which also can count as an elective in the Astronomy minor or an elective in the Earth Science – ESCI specialization track. .

Facilities effects: adequate Equipment effects: adequate

Library effects: adequate; back issues of a number of important journals are already available and

recent papers are generally available for free through the ARXIV archive or through NASA.

Computer effects: adequate

#### **ITEM**

Resolution concerning the assessment of student learning

#### RECOMMENDED MOTION FOR BOARD ACTION

**WHEREAS**, in accordance with Section 10a-1(a) of the Connecticut General Statutes, the Board of Regents for Higher Education is the governing body for the Connecticut Community Colleges, Connecticut State Universities, and Charter Oak State College, and

**WHEREAS**, the Board has adopted a mission that includes providing rigorous programs and a strategic goal to graduate more students with the knowledge and skills to achieve their life and career goals, and

**WHEREAS**, the Board has adopted a Transfer and Articulation policy that establishes a general education core based on student competencies, and

**WHEREAS**, in accordance with the New England Association of Schools and Colleges (NEASC) Standard for Accreditation 3.2, the governing board is ultimately responsible for the institution's quality and integrity, and

**WHEREAS**, assessment of student learning is an integral component of NEASC standards for the academic program in providing useful information for improving student experiences and learning, as well as assuring that the level of student achievement is appropriate for the degree awarded, be it

**RESOLVED** that the Connecticut State University Trustees Resolution concerning Assessment of Student Learning for Educational Improvement (BR #05-38) is rescinded, and be it further

**RESOLVED** that the Connecticut State Colleges and Universities will assess student learning in a manner consistent with NEASC Standards, standards of program-specific accreditors and groups, and disciplinary expectations, with faculty having a leading role to develop and implement plans for the assessment of learning for educational improvement, and be it further

**RESOLVED** that the President of each college and university shall submit to the BOR President no later than September 1 of each year a report that updates the institution's most recent 5- or 10-year report to NEASC; the format of this report shall be determined by the BOR President and shall be a format consistent with periodic reporting to NEASC.

#### **BACKGROUND**

The Former CSU Board of Trustees adopted an assessment policy in 2005 that required submission of annual reports about assessment activities in June of each year. The first reports were not required until June 2008. Formats were changed almost every year, and provided little valuable information to the Board or to the institution. Having a policy about assessment, however, serves several purposes: 1) emphasizing the importance to the Board of measuring student learning and using the results to improve, 2) providing a regular and expected cycle of reporting results, and 3) demonstrating to NEASC Board oversight over important processes.

In 2012, state universities were asked to provide an update of the E-Series forms they most recently submitted to NEASC in a 5-year report or 10-year self-study. The policy will allow for continuation of this format but also flexibility in adapting to changes that NEASC may institute.

#### **RATIONALE**

The policy:

- Continues to require annual reports from universities about assessment and extends the policy to the colleges
- Changes the due date of the report from June 1 to Sept. 1 to allow more time to analyze data collected at the end of the academic year
- Emphasizes the alignment of reports to BOR with NEASC standards but allows for flexibility as NEASC changes its format, with the intent that annual attention to assessment will ease burden for five-year and ten-year reports to NEASC while also strengthening the process to close the assessment loop
- Preserves a phrase from the former CSU Board's resolution that "faculty will develop and implement plans for the assessment of learning for educational improvement."



#### Connecticut State University System



#### **RESOLUTION**

#### concerning

#### ASSESSMENT OF STUDENT LEARNING FOR EDUCATIONAL IMPROVEMENT

#### in the

#### CONNECTICUT STATE UNIVERSITY SYSTEM

#### June 10, 2005

	, ente 10, 2000
WHEREAS,	The assessment of student learning needs to be congruent with requirements of evidence of student learning outcomes of general education and the disciplines by accrediting agencies, including NEASC and the professional accrediting bodies, and with regulations of the Department of Higher Education, and
WHEREAS,	The assessment of student learning for educational improvement requires the continued commitment and involvement of faculty, and
WHEREAS,	The CSU system is committed to the concept of assessment of student learning for educational improvement, and
WHEREAS,	The assessment of student learning for educational improvement needs to be adequately recognized and supported by all levels, and
WHEREAS,	The implementation of educational improvements emanating from the assessment process needs to have a direct connection to planning and budgeting, therefore be it
RÉSOLVED,	That all assessment of learning be done in the context of the university's mission and the goals for academic programs, and be it further
RESOLVED,	That assessment be guided by an understanding of how students learn, by a clear articulation of learning outcomes for graduates, and by the systematic use of appropriate qualitative and quantitative evidence, including direct measures, of how well students and graduates are meeting the stated learning outcomes for programs, and be it further
RESOLVED,	That informed actions are undertaken to enhance learning as part of a systematic, iterative, and continued educational improvement process, and be it further

- RESOLVED. That faculty will develop and implement plans for the assessment of learning for educational improvement, and be it further
- RESOLVED. That the President of each university will report to the Chancellor on the university's assessment guidelines and submit a report on the status of assessment for educational improvement by June 30 of each year.

A Certified True Copy:

Lawrence D. McHugh, Chairman

#### **ITEM**

Assessment of Student Learning for Educational Improvement in the Connecticut State University System

#### **BACKGROUND**

Board of Trustees Resolution BR#2000-13 "Performance Assessment in the CSU System" requires the use of performance indicators for accountability purposes. The Higher Education Coordinating Council by Section 10a-11 of the General Statues as amended by Public Act No. 99-285 required that such measures be developed and annually reported to the legislative body. The CSU System has responded to such requirements and developed indicators that are reported to the Board of Governors, as mandated.

The assessment movement has undergone significant maturation at the national level during the last 20 years. There is a shared understanding among the leading forces in the higher education community that enhancing student learning must be at the center of all institutional improvement efforts. This fact is reflected in the inclusion of assessment of student learning and improvement as key portions of the most recent revisions of the standards of all regional accrediting agencies of higher education. In New England, NEASC new Standards for Accreditation require assessment of student learning for educational improvement in Standard Four. It also imbeds assessment throughout the standards, particularly Standard Five (Faculty) and Ten (Public Discourse).

#### **ANALYSIS**

The mandated performance assessment and accountability approach is useful, but it needs to be complemented by a continuous and purposeful look at direct measures of student learning at the program level and with principal participation of faculty. Such assessment of student learning must result in actions to promote educational improvement, responding to the core mission of the CSU universities: the enhancement of learning for all of their students.

The proposed assessment policy recognizes that efforts of the assessment of student learning need to correspond with the requirements from accrediting agencies and the Department of Higher Education. It also recognizes that assessment efforts need to be faculty driven and supported by the universities.

At present, there are a number of programs that have already developed their assessment plans. Many faculty are also engaged in significant assessment activities. The next phase is to make assessment of student learning a systematic and continued educational improvement process.

#### CHANCELLOR'S RECOMMENDATION

Approve policy on Assessment of Student Learning for Educational Improvement in the Connecticut State University System

#### PART I: MAKING ASSESSMENT MORE EXPLICIT (THE E SERIES)

Here institutions are asked to declare their approach to providing "systematic and broad-based assessment of what and how students are learning" (4.48), and summarize how the information is used for improvement. Four possible alternatives are listed below; if institutions wish to propose another alternative, they are invited to contact Commission staff. In all cases, the Commission expects that the alternative selected will provide the institution with the ability to present its assessment at the program and institutional level. The four <u>alternatives</u> are:

- **E1: Inventory**: In this alternative, the institution completes: <u>Part A</u>, an inventory of how programs assess student learning and use the results, and, as appropriate, <u>Part B</u>, an inventory of specialized accreditation. This alternative is based on a system used by the Western Association of Schools and Colleges (WASC).
- **E2: VSA**: Here, the institution commits to the Voluntary System of Accountability (VSA) plus program review. This alternative builds on the system developed by APLU and AASCU; because the VSA uses institutional level data, it is augmented for Commission purposes by information on program review. While the system was developed by and for public institutions, for the Commission's purposes, it may be selected by any institution.
- E3: Institutional Claims: Some institutions may elect a framework in which they state claims for the success or achievement of their students and provide evidence to validate the claim. This audit approach provides the institution great flexibility in stating the claims it makes to the public about student learning and student achievement, and developing credible evidence to support the claims.
- E4: Peer Comparison: Many institutions already have complex systems to compare themselves with peer institutions, most often on matters of resources and processes; this alternative provides the opportunity to extend those comparisons to outcomes for student learning and success. Here the institution identifies key measures of student success (e.g., transfer or acceptance to graduate school) and compares its level of performance with that of its peers.

**Selecting the method**: In the periodic reviews, institutions are asked to declare which of the above four methods they wish to use. Alternatively, institutions may propose a fifth system or combination of the above. Such proposals should be forwarded to the Director of the Commission early in the report-preparation process. The Commission staff will review the proposal and confer with the institution.

Using the information in the forms and integrating information into the self-study: Institutions are encouraged to select their approach and complete the forms early in the report-preparation process so that they can use the information. The <u>Appraisal</u> section of the report provides a useful opportunity for institutions to reflect both on the success and achievement of their students and on their own progress in understanding what and how students are learning. Similarly, the <u>Projection</u> section affords institutions an opportunity to state their commitment for improvement in the area of assessment.

# **OPTION E1: PART A. INVENTORY OF EDUCATIONAL EFFECTIVENESS INDICATORS**

CATEGORY	(1) Have formal learning outcomes been developed?	(2) Where are these learning outcomes published? (please specify) Include URLs where appropriate.	(3) Other than GPA, what data/evidence is used to determine that graduates have achieved the stated outcomes for the degree? (e.g., capstone course, portfolio review, licensure examination)	(4) Who interprets the evidence? What is the process? (e.g. annually by the curriculum committee)	(5) What changes have been made as a result of using the data/evidence?	(6) Date of most recent program review (for general education and each degree program)
At the institutional level:						
For general education if an undergraduate institution:						
List each degree program: 1.						
2.						
3.						
4.						
5.						
6.						

Institutions selecting E1a should also include E1b.

# OPTION E1: PART B. INVENTORY OF SPECIALIZED AND PROGRAM ACCREDITATION

(1)	(2)	(3)	(4)	(6)
Professional, specialized,	Date of most	List key issues for continuing accreditation identified in	Key performance	Date and nature of
State, or programmatic	recent	accreditation action letter or report.	indicators as required	next scheduled
accreditations currently held	accreditation		by agency or selected	review.
by the institution (by	action by each		by program	
agency or program name).	listed agency.		(licensure, board, or	
			bar pass rates;	
			employment rates,	
			etc.). *	
•				

<sup>\*</sup>Record results of key performance indicators in form S3.

Institutions selecting E1b should also include E1a.

### OPTION E2. VOLUNTARY SYSTEM OF ACCOUNTABILITY PLUS PROGRAM REVIEW

- I. Institutions selecting this option should include copies of the most recent College Portrait institutional template under VSA and up to two prior templates. The templates will be available from APLU and AASCU.
- II. Complete the information on program review, below.

CATEGORY	(1) What is the date of the most recent program review?	(2) How is an "external perspective" incorporated into the review?	(3) How are the results of the program review considered?	(4) What major changes have been made as a result of the most recent program review?	(5) What is the date of the next program review?
List each degree program: 1.					
2.					
3.					
4.					
5.					
6.					
7.					

# OPTION E3. INSTITUTIONAL CLAIMS FOR STUDENT ACHIEVEMENT, WITH VALIDATING INFORMATION

	(1)	(2)	(3)	(4)	(5)
	What are the claims for	Where are the claims	Other than course	Who interprets the	What changes have been
CATEGORY	student achievement or	published? (please specify)	completion and grades,	evidence? What is the	made in the program, the
	student success?	Include URLs where	what outcomes evidence is	process?	claims or the evidence?
		appropriate.	used to support the claims?	(e.g. by the curriculum	
At the institutional				committee)	
level:					
F					
For general education					
if an undergraduate					
institution:					
List as als de sus s					
List each degree					
program:					
1.					
2.					
۷.					
3.					
4.					
5.					
6.					
7.					
<b>'</b> '					

# OPTION E4. MEASURES OF STUDENT SUCCESS: COMPARISON WITH PEERS

CATEGORY	(1) What is the measure of student achievement or student success?	(2) What is the institution's score or rate?	(3) What is the peer comparison group?	(4) What is the peer score or rate on this measure?	(5) What changes have been made as a result of the comparison?
At the institutional level:					
For general education if an undergraduate institution:					
List each degree program: 1.					
2.					
3.					
4.					
5.					
6.					
7.					







# A Multi-State Collaborative to Advance Learning Outcomes Assessment

A Proposal from the Massachusetts Department of Higher Education
With the Support of AAC&U and SHEEO

March 2012

#### Summary

Massachusetts has been working for some time to develop a system-level program of learning outcomes assessment that builds on faculty and campus-based formative assessment while adding features to provide for benchmarking and/or accountability at the state level.

Our goal is to find a way to compare, and publicly report, the level of learning achieved by students in the various "segments" of the Massachusetts public system (community colleges, state universities, University of Massachusetts) with the level of learning achieved by students at peer institutions in other states without relying on a standardized test. We would like to form a collaborative with other states with similar interests and work with them to design and pilot test a system-level program that can work for all collaborating states. Our efforts are being actively supported and sponsored by the Association of American Colleges and Universities (AAC&U) through its LEAP initiative and by the national State Higher Education Executive Officers (SHEEO) Association office.

#### **Background**

Massachusetts public higher education launched a statewide initiative in the area of learning outcomes assessment in late fall 2009. A broadly representative Working Group on Student Learning Outcomes and Assessment spent six months examining policies and best practices related to learning outcomes assessment at the campus level, looked at programs in Massachusetts, and made suggestions for ways to strengthen campus programs through collaboration and joint effort. During a second phase of its activities in 2010–11, the Working Group was charged to focus at the system level and develop a program of learning outcomes assessment linked to, and based on, strong campus-level programs. A major product of this phase was a proposed model that used LEAP Essential Learning Outcomes as a broad framework, built upon multiple-measure assessment approaches used on campuses, and envisioned aggregation of assessment results by segment and public reporting at the state level. It also called for partnerships with other states to develop appropriate models and enable comparisons. The Working Group's report is available at the following URL: <a href="http://www.mass.edu/currentinit/documents/VisionProjectWGStudentLearningOutcomes&Assessment-PhaseTwoMarch2011.pdf">http://www.mass.edu/currentinit/documents/VisionProjectWGStudentLearningOutcomes&Assessment-PhaseTwoMarch2011.pdf</a>.

#### **LEAP**

LEAP provided the framework for the Working Group's suggested model because this national initiative of the AAC&U emphasizes the importance of a liberal education for all students in all fields of study—including both general and professional or applied fields and students in community colleges and four-year public colleges and universities, close links to actual curricula, real student work, and faculty instructional activities. LEAP Essential Learning Outcomes and VALUE Rubrics enjoy broad support among faculty members and campuses in Massachusetts and have great potential as a common framework for *both* campus- and system-level learning outcomes assessment.

In February 2012 Massachusetts submitted a proposal to AAC&U to become a LEAP state, and described an initiative to further develop a somewhat modified version of the Working Group's model. AAC&U invited Massachusetts to become a LEAP state on February 15. The proposed multi-state collaborative is an essential component of this initiative. We hope that a number of states, including but not limited to current LEAP states, will want to join Massachusetts in the further development of this work.

#### SHEEO

The State Higher Education Executive Officers' national office has lent important support to our work in Massachusetts. SHEEO-gathered information on state-level policies and practices in learning outcomes assessment was shared with the Working Group on Student Learning Outcomes and Assessment. Massachusetts Commissioner Richard Freeland presented the Working Group's model at the annual SHEEO conference in 2011, asking states with similar interests to consider joining forces to find an alternative to standardized testing as a means to implement learning outcomes assessment at the system level. SHEEO President Paul Lingenfelter encouraged SHEEO members to consider the Massachusetts request in a follow-up letter, and Commissioner Freeland wrote all SHEEOs in September 2011, asking for expressions of interest. More recently, SHEEO has announced a new focus on learning outcomes assessment as part of its Peer Consultation Network. SHEEO will be hosting and helping organize the multi-state conference to which states interested in exploring participation in the Massachusetts initiative are being invited.

#### **Project Goals**

Work to date in Massachusetts suggests several characteristics worthy of consideration for the design of an approach to learning outcomes assessment at the system level. Specifically, such a program should:

- be centered on embedded assessment using actual student work;
- be closely linked to curricula at the campus level and to the instructional work of the faculty;
- include elements that are common to all institutions in a system but also allow for the use
  of multiple measures, including additional measures deemed appropriate by individual
  institutions or groups of institutions;
- take into account significant differences among institutions and student bodies with respect to level of academic preparation;

- be feasible for wide use by departments, institutions and systems in terms of cost and faculty workload;
- include a metric (or metrics) to describe levels of student learning that are useful for planning and program improvement at campus and department levels;
- integrate campus and system assessment in ways suitable for public presentation to outside, non-academic stakeholders; and
- allow comparisons of student learning at the segmental level across state lines.

#### A Starting Point and Suggested Plan

In Massachusetts we have been discussing, and have included in our LEAP State proposal, the use of three LEAP Essential Learning Outcomes as a starting point for the design work. These outcomes have associated VALUE Rubrics and are common to all public institutions in the state: (1) critical thinking; (2) written communication; and (3) quantitative literacy. Our thought is to begin by seeking agreement on definitions of learning outcomes and scoring rubrics in these three areas as a foundational element of a system-level design. It is hoped that these same elements can be used as a starting point for discussions among collaborating states as well. We recognize that there must be room for this approach to evolve and expand as the work proceeds both within Massachusetts and in the multi-state collaborative, but work in Massachusetts so far has persuaded us that this would be a viable place to begin.

It is proposed that planning among collaborating states over the course of the academic year 2012–2013 should seek agreement among state systems and campuses on a preliminary design for the metric(s) to be used; the methodology for the actual assessments and for recording, summarizing and analyzing results; and a plan for presenting the results in ways that are useful to faculty and institutions, consistent with the goal of accountability to non-academic stakeholders, and amenable to cross-state comparisons at the segmental level. The intent would be to pilot-test the preliminary design in participating states during 2013–14. After pilot testing, adjustments to the preliminary design will be made and collaborating states will be able to make decisions about full implementation. It is hoped that enough states will adopt a common plan to allow for subsequent state comparisons and sharing the results with other interested states through the AAC&U LEAP States initiative and the SHEEO's PCN network.

#### **Project Structure within Massachusetts**

Many public institutions in Massachusetts have agreed to participate in our LEAP State work as "primary partner campuses." (Fifteen community colleges, six state universities, and the University of Massachusetts Lowell; the other UMass campuses will stay connected with the work through the participation of UML and may join more actively at a later date.) Massachusetts will form a **Task Force on Statewide Assessment** with representatives of each of the primary partner campuses appointed by the campus president or chancellor to provide oversight and guidance and to make sure there is good communication between the project and participating campuses as the work proceeds.

Two smaller working teams will be created drawing primarily on the membership of the statewide Task Force. A **Massachusetts Team** will be charged with developing a working model and design for a pilot test in Massachusetts, and a **State Partnership Team** will be established to work with what we hope will be counterpart groups in other participating states of the collaborative on the preliminary design and model for pilot testing in collaborating states. For the

purpose of promoting consistency between the work of the two groups, Pat Crosson, who chaired the Working Group on Student Learning Outcomes and Assessment in 2010 and 2011, will chair both the Massachusetts Team and the State Partner Team. Dr. Peggy Maki, who has served as an assessment expert for Massachusetts public higher education during the past year and served on the VALUE Advisory Board, will also be a member of the Massachusetts team.

#### **Anticipated Work of the Multi-state Collaborative**

Potentially interested states are being invited to participate in an exploratory conference to be held at the SHEEO offices in Boulder, Colorado, in May 2012. This initial conference is intended to allow interested states to form a deeper understanding of the project and to move toward a decision regarding continued participation in the project. States attending the initial gathering will almost certainly require some time after the conference to come to a decision about their continued participation. Once a firm number of states have indicated a readiness to participate in the work, we imagine a series of multi-state meetings to carry the work forward. We are beginning to seek funding support for such meetings. We also anticipate that participating states will want to establish their own in-state processes, similar in purpose to the Massachusetts Task Force on Statewide Assessment described above, so that the activities of the multi-state collaboration can be considered more widely among institutions within each state.

#### A Sea Change on Student Learning Assessment: An AAC&U Working Paper

February 2012<sup>1</sup>

#### Introduction

The Association of American Colleges and Universities (AAC&U) has been working for a decade to help colleges, universities and community colleges raise the level of student achievement on key capacities—what we call the Essential Learning Outcomes—that are relevant to work and life in the 21<sup>st</sup> century. These learning outcomes include, across and beyond content knowledge: inquiry and analysis; critical and creative thinking; integrative and reflective thinking; written and oral communication; quantitative literacy; information literacy; intercultural understanding; and teamwork and problem solving. Hundreds of institutions and their faculty now are using AAC&U's quality frameworks to improve student learning.

As part of this effort, AAC&U has become the leader in promoting new approaches to assessment and quality assurance that go far beyond the narrow methods that have become standard both in school and college. AAC&U's approach respects the complexity of the learning students must accomplish, but also allows for comparisons of relative student success in different colleges and universities so that institutions themselves and the wider public can know what kinds of learning the institutions foster, and whether students are being well prepared for a world of complexity and change.

In 2007, AAC&U began working with faculty at a large number of diverse institutions to develop rubrics for 15 of the Essential Learning Outcomes that can be used in assessing the levels of learning manifested in actual student work. This approach is assessment worthy of the complexity of the learning goals we must have for our college students, and is an attempt to redirect both policy and practice away from the prevailing investment in standardized tests of comparatively narrow forms of knowledge and skill. As Oklahoma State University Provost Robert Sternberg, one of the nation's foremost experts on these matters, says in his essay *On Alternative Models of Assessing Student Learning*:

An overemphasis on standardized measures ... risks focusing our institutions on a narrow set of analytical and written communication skills that, while important, represent only a small subset of the skills and abilities we need to help our students develop in order to prepare them fully for later life."<sup>2</sup>

Dr. Sternberg instead advocates evaluating skills that will matter most in a student's future -- including learning in one's major; analytical, creative and practical skills; and ethical judgment.

AAC&U calls this broader approach the "VALUE" strategy, with VALUE an acronym for Valid Assessments of Learning in Undergraduate Education.

<sup>1</sup> This White Paper is a collaborative product of Dan Sullivan, Carol Schneider, Terrel Rhodes, Lisa O'Shea, and Debra Humphreys of the Association of American Colleges and Universities.

<sup>&</sup>lt;sup>2</sup> "On Alternative Models of Assessing Student Learning: Is there a Best Model?" in Assessing College Student Learning: Evaluating Alternative Models, Using Multiple Methods (AAC&U, 2011).

As we begin 2012, experimentation with this VALUE approach to college student learning assessment is already under way on hundreds of campuses, with assessment focused on samples of students' actual work, generated across the curriculum. Faculty on many different kinds of campuses do indeed see the "value" in forms of cumulative learning assessment that use students' authentic work as a source of evidence. But what is needed now is a strategy for pulling campus assessment data together into a national data warehouse so that the necessary benchmarking across higher education can begin to happen. Colleges and universities need a way to situate their own students' performances in a larger context that allows comparisons among institutional peers. The public and policymakers need the kind of reference points for high quality learning that AAC&U's Essential Learning Outcomes and VALUE rubrics address. We need, in sum, a concerted and sophisticated strategy for "moving the needle" on what counts as evidence of high quality learning for 21st-century learners and contexts.

We are in a sea change moment.

#### Where Things Are Now, Nationally

There is wide recognition—among federal and state legislators, policy-makers, public and private college and university leaders and faculty members, and even the general public—that there is now and without significant corrective action will be an even greater future shortfall in the number of college graduates in America relative to the number needed to fuel our 21<sup>st</sup>-century knowledge economy. Solutions have focused primarily on how to get more students who could benefit from it into college, how to help them afford college, and how to increase the percentage of those attending college who actually earn a degree. With vigorous leadership from policy centers and major philanthropies, educators now are intensely focused on eliminating this present and future shortfall. Completion and productivity initiatives are cascading, and new performance incentives for improved degree production are being unveiled in one state system after another and, just this past month, by President Obama.

Largely missing from proposals and organized actions to address this issue, however, has been the critical matter of what students should and do actually learn in college and how that relates to America's 21<sup>st</sup>-century needs. If more students complete college but still do not have the knowledge and skills necessary to succeed in work and life, we in America will have accomplished a fool's errand together at great expense in time and treasure.

While welcoming the intensified focus on student success and completion, AAC&U has for over a decade helped faculty and campus leaders understand that a national commitment to increased college attainment needs to be matched by an equally intense focus on quality or, more specifically, on the kinds and levels of learning that degree attainment needs to represent. Completion ought reliably to mean that students have demonstrated—cumulatively, over time—their acquisition of the knowledge and skills (the Essential Learning Outcomes) they will need for the complex and fast-changing challenges of work, citizenship, and contemporary life.

#### **Employers Understand That Completion is Not Enough**

There is growing evidence that employers truly get this. In a 2010 study conducted by Hart Research Associates for AAC&U—"Raising the Bar: Employers' Views on College Learning in the Wake of the Economic Downturn"—employers make it clear that they want both knowledge and competence in specific fields <u>and</u> the intellectual and practical skills acquired in liberal education that we enumerated above, because these learning outcomes are the keys to success in any job, including the jobs that are even now being invented in our rapidly changing economy.

Here is what employers responding to the 2010 Hart Research survey<sup>3</sup> said were their top priorities for increased emphasis by colleges in the wake of the economic downturn:

- Effective oral/written communication: 89%
- Critical thinking/analytical reasoning: 81%
- Knowledge/skills applied to real world settings: 79%
- Analyze/solve complex problems: 75%
- Connect choices and actions to ethical decisions: 75%
- Teamwork skills/ability to collaborate: 71%
- Ability to innovate and be creative: 70%
- Concepts/developments in science/technology: 70%
- Locate/organize/evaluate information: 68%
- Understand global context of situations/decisions: 67%
- Global issues' implications for future: 65%
- Understand and work with numbers/statistics: 63%
- Understand role of U. S. in the world: 57%
- Knowledge of cultural diversity in US/world: 57%
- Civic knowledge, community engagement: 52%

Tellingly, employers put their compensation dollars into the jobs that require these kinds of higher education learning outcomes. Georgetown University Center on Education and the Workforce economist Anthony Carnevale says this:

From a federal database analyzing qualifications for 1,100 different jobs, there is consistent evidence that the highest salaries apply to positions that call for intensive use of liberal education capabilities, including: writing, inductive and deductive reasoning, judgment and decision-making, problem solving, social/interpersonal skills, mathematics, originality.<sup>4</sup>

Indeed, the 220 jobs in the upper quintile, with regard to the extent to which they require these liberal education capabilities, pay on average over double what the 220 jobs in the lowest quintile pay.

<sup>&</sup>lt;sup>3</sup> "Raising the Bar: Employers' Views on College Learning in the Wake of the Economic Downturn" (Hart Research Associates, 2010).

<sup>&</sup>lt;sup>4</sup> Anthony Carnevale, Georgetown Center for Education and the Workforce, analysis prepared for the Association of American Colleges and Universities, "The Economic Value of Liberal Education," June, 2009.

#### **How Do We Know What Students Have Learned in College?**

Taking responsibility for the quality of student learning, not simply degree completion, involves three elements:

- 1) A clearly articulated, collective conception of the qualities of a college-educated person;
- Intentional and collaborative faculty-led efforts across educational programs to cultivate those qualities; and
- 3) Cumulative assessments, across the curriculum and co-curriculum, to determine the extent to which students have achieved the desired learning.

In the absence of pro-active and broad-based leadership on assessment and accountability from the academy, a politically popular demand for accountability has swept statehouses across the country and has attracted the focus of the current U.S. Secretary of Education and many lawmakers of both parties at the federal level. Ironically, this ideology actually threatens to shortchange accountability by holding the academy to standards for students' higher learning that are both too narrow and too low.

While specific accountability proposals from policy leaders vary, they have one feature in common. Like the K-12 federal and state reforms that have been enacted under No Child Left Behind, they regard a particular kind of standardized testing—including multiple-choice, "one-best-answer" tests—as the right way to assess student knowledge and to hold the academy "accountable." Or policy leaders recommend content-neutral assessments of students' reasoning skills that, by design, tell us nothing about students' ability to apply knowledge learned in their majors to complex problems and contexts. Although we clearly have entered a new global era when it comes to high expectations for students' cumulative learning, policy and public understandings of how we should be accountable for quality are still mired in the assumptions of a by-gone time.

But students' study at the college level, in hundreds of different academic departments and programs, reflect very different communities of inquiry and practice. Assessing what students have learned in colleges and universities requires a sophisticated understanding both of context and of how knowledge and skills are to be used. **Students typically do their best and most advanced work in their major fields of specialization**, and they should be held accountable for knowledge and skills that are deemed essential at an advanced level, whether the field is physics, psychology, or pharmacy.

What is regarded as excellent writing in chemistry, for example, because of its direct, descriptive, and succinct language, is very different from the well-told analytical narrative in history or the evidence-based scan of policy alternatives appropriate to public administration. Analytical skill has one kind of applied meaning for an English major, and a quite different kind of applied meaning for an engineer. A standardized test of communication skills cannot probe students' highest skill level, because advanced skill takes different forms in different fields.

But everyone—educators and employers alike—has a stake in knowing whether students are developing analytical and problem-solving capabilities, the kinds addressed in the Essential Learning Outcomes, in the context of their most advanced studies. And everyone has a stake in knowing whether students and graduates can draw knowledge and skill from

different contexts—both academic and field-based (such as internships)—as they tackle new problems and projects.

This is the kind of evidence that AAC&U's VALUE-framed work on assessment has moved to the center. The VALUE approach recognizes that content, context and real-world applications need to become central in assessments of students' most significant learning in college.

We believe the time is right to make this kind of assessment a national priority and to change the prevailing expectations for good practice in assessing and reporting the quality and level of students' accomplishments in college.

#### What Does Authentic Assessment of Student Learning Look Like?

Accountability for the highest standards of undergraduate learning calls for new forms of critical inquiry and reflective practice—forms that are both appropriate to higher education's mission and feasible in the contemporary academy. Even if better tests continue to be developed, standardized tests *alone* are inadequate to measure individual or institutional progress, or to foster advanced learning and accountability in higher education.

AAC&U affirms that accountability is essential, but that the form it takes must be worthy of higher education's mission. This means that we must hold ourselves accountable for assessing our students' best work, not just the very small set of general skills captured in the most widely used national tests. And we must evaluate progress over the full range of students' introductory, "milestone," and "capstone" levels of learning.

Authentic assessment places students' effortful work at the very center of the assessment equation. Projects, research, writing, performances, portfolios<sup>5</sup>—course-based and field-based—are the centerpieces of the kind of assessment AAC&U advocates.

At the same time, it is not enough for an institution to assess its students in ways that are grounded only in its local curriculum. Colleges and universities also must provide useful knowledge to the public about goals, standards, accountability practices, and the quality of student learning. **Common rubrics** are needed to summarize levels of student achievement across different academic fields and institutions, and for particular groups of students.

In response to this need, and with the support of the State Farm Companies Foundation and The U. S. Department of Education's Fund for the Improvement of Postsecondary Education (FIPSE), AAC&U launched an initiative in 2007 called Valid Assessment of Learning in Undergraduate Education (VALUE) to explore the development of assessment rubrics for a broad range of the essential college learning outcomes represented by AAC&U's Essential Learning Outcomes, outcomes that have been endorsed by employers.

and available to the institution for future, retrospective assessment of student work. Aggregation of summary scores from these assessments can be used to create an institutional score, which in turn can then be benchmarked against scores from other institutions.

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<sup>&</sup>lt;sup>5</sup> Portfolios are collections of a student's work from the beginning of college to the end, available for assessment of student progress at any point. Many institutions are experimenting with and adopting e-portfolios which make students' work available to them into the future, including for sharing with potential employers or graduate schools,

By 2009, assessment rubrics for 15 college learning outcomes had been developed by teams of faculty and academic professionals from over 100 campuses across the country, including Spelman College, St. Lawrence University, UC-Berkeley, UCLA, Stanford University, Carleton College, San Mateo Community College, Portland State University, The U.S. Air Force Academy, The College of St. Rose, and the University of Alabama-Birmingham. Validity studies (an estimate of the extent to which a measure—in this case a rubric—is actually correlated with the underlying trait it seeks to measure) and reliability studies (an estimate of the extent to which multiple raters reach the same conclusion on a rating using a particular rubric) have been under way for over a year with very encouraging results.

Think, for a moment, about the learning benefits such rubrics have, above and beyond their utility for assessment. Knowing they are going to use a rubric to assess student work, faculty members must "reverse engineer" their courses, thinking carefully about how their assignments are structured. Is the assigned work going to stimulate the kind of learning the rubric describes? Sharing the rubric with students ahead of time gives them a much deeper and more explicit understanding of the growth in higher-order learning skills they are being asked to achieve. Students can see what the college believes is the difference between exceptionally fine analysis and less fine analysis—or critical thinking, integrative learning, and so on. In some institutions, students observing a public presentation by another student are also asked to use a rubric to evaluate their co-student's work, adding another avenue to learning and insight for the student observers. This kind of assessment activity is embedded in the teaching and learning process itself and actually contributes to learning.

#### **Interest on Campuses is Strong and Growing**

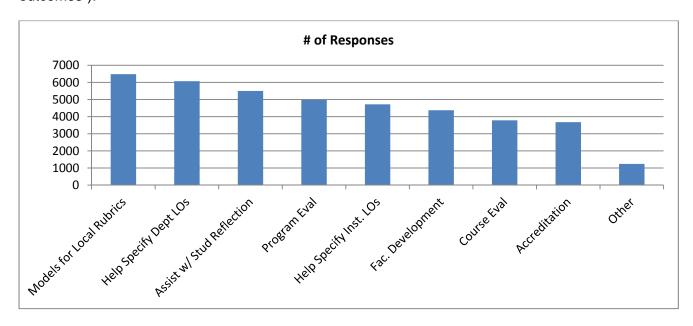
Despite the much more narrow and less ambitious framing of the so-called "completion agenda" (see above) and the pressure faced by many public institutions, state systems, and even private institutions (through accreditation) to adopt that agenda, the response to AAC&U's VALUE rubrics since their posting on the AAC&U website in spring 2010 has been enormous.

As of December 2011, we have collected information from first-time visitors to the VALUE website. In the time since, over 13,000 first-time visitors from over 3,500 institutions and organizations, international and domestic, have reviewed materials on the site and downloaded some or all of the 15 rubrics. Visitors represent an array of affiliations, primarily higher education institutions (both foreign and domestic) as well as an array of other organizations. People accessing the VALUE rubrics represent all 50 U.S. states and nearly all U.S. territories (the exception being the Virgin Islands).

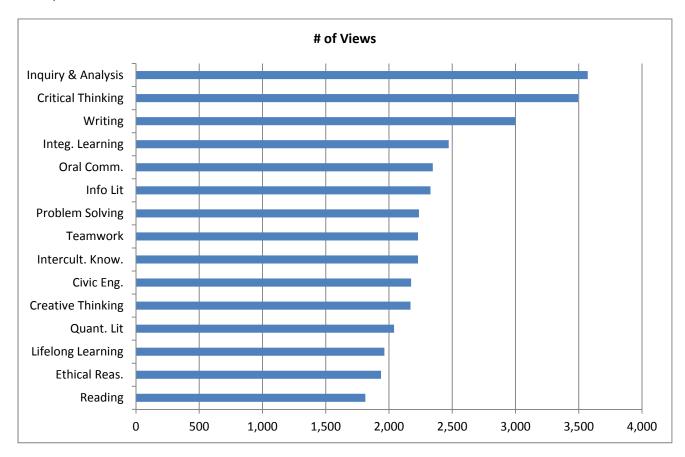
The largest category of users are instructional staff (faculty, adjuncts, instructors, and lecturers), who comprise 43% of the users accessing the rubrics. The next group most frequently represented among users (33%) is mid-level administrators (deans, directors, coordinators, and chairs), followed at 6% by upper level administrators (i.e. provosts, vice presidents, chancellors, and presidents). The remaining roughly 18% of users are primarily librarians, students, graduate assistants, administrative assistants, and student affairs/services staff.

We also asked users to share their reasons for accessing the rubrics. Among a list of possible response categories, users were allowed to select all that applied.

The following chart shows the frequency of selected responses ("LOs" are "learning outcomes").



According to page views, the most commonly viewed rubric is "Inquiry and Analysis," which is why we have included it here. The least-viewed rubric is "Reading." In descending order, the most to the least viewed rubrics are:



These data say to us at AAC&U that substantial numbers of college and university leaders and faculty are ready to pursue an assessment and accountability agenda that is both responsive to the needs of the public and appropriate to the depth and quality of the learning we aspire to have our students attain.

But much like many chemical reactions, colleges and universities individually and in state systems need a catalyst to achieve "take-off" in the area of authentic assessment.

#### The Critical Next Steps

AAC&U's 2013-2017 strategic plan will include a strong commitment to developing a recommended model platform for documenting and reporting students' cumulative progress and proficiency levels on expected learning outcomes. The long-term desired outcome of our efforts will be a sea change in assessment principles and practices and a retirement of the idea that standardized testing – which privileges standardized answers – is the best strategy for a nation whose future depends on citizens' capacity for innovative, adaptive, and collaborative problem-solving.

# The LEAP Initiative and Its Implications for Assessment

Multi-State Collaborative Meeting Boulder, CO

May 30, 2012

Carol Geary Schneider
Association of American Colleges and Universities

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#### **LEAP AT A GLANCE**

Launched in 2005, Liberal Education and America's Promise (LEAP) is a national initiative of the Association of American Colleges & Universities (AAC&U) that champions the importance of a twenty-first-century liberal education—for individual students and for a nation dependent on economic creativity and democratic vitality. Through LEAP, hundreds of campuses are making far-reaching educational changes to help all their students—whatever their chosen field of study—acquire the broad knowledge and higher order capacities they need to thrive both in the economy and in a globally engaged democracy.

LEAP asks core questions about the learning students most need from college; listens and responds as employers make the case that today's workers need to be better prepared for a global economy; and focuses on education for knowledgeable citizenship, as well as careers.

#### LEAP PROMOTES

- Essential learning outcomes—the learning outcomes essential for success in life and work in the 21<sup>st</sup> century. These outcomes include: 1) broad knowledge of culture, science and society, as well as competence in specific fields; 2) intellectual and practical skills, such as inquiry and analysis; critical and creative thinking; written and oral communication; quantitative literacy; information literacy; teamwork and problem-solving; 3) studies and experiences related to democratic and global citizenship and intercultural competence; and 4) integrative, applied and adaptive learning;
- High-Impact educational practices—ways of engaging and challenging students—such as first
  year programs; intensive writing, collaborative assignments, undergraduate research, internships,
  and major projects—that help students achieve essential learning outcomes;
- Authentic Assessments—probing whether individual students have developed essential
  capacities, and can apply their learning to complex problems and real-world challenges;
- Inclusive Excellence—to ensure that every student at every kind of institution benefits from a deep, hands-on, and practical liberal education.

LEAP defines liberal education not in terms of specific disciplines, but rather as a focused effort to prepare all students to deal effectively with complexity, diversity, and change.

#### **AREAS OF WORK**

#### Campus Action

- LEAP strategies for deepening and assessing student learning
- LEAP initiatives in Partner States California State University System, Kentucky, Massachusetts, North Dakota, Oregon, Utah, Virginia, Wisconsin; several other states seeking inclusion
- LEAP Campus Action Network (345 two- and four-year institutions public and private and organizational partners);
- Summer institutes for campus teams working on outcomes in general education, integrative learning and departments, assessment and institutional change to make excellence inclusive;
- Partnership with Project Kaleidoscope to advance STEM reform

#### **Authentic Evidence**

- LEAP VALUE project nationally validated rubrics for assessing students and reporting on 15 essential learning outcomes;
- Reports—prepared in concert with research agencies—on students' achievement of essential learning outcomes and their participation in high impact forms of learning.
- Public opinion research employers; recent graduates; students.

# Liberal and Liberal Arts Education: A Guide to Frequently Confused Terms

LIBERAL EDUCATION\*: An approach to college learning that empowers individuals and prepares them to deal with complexity, diversity and change. It emphasizes broad knowledge of the wider world (e.g science, culture and society) as well as in-depth achievement in a specific field of interest. It helps students develop a sense of social responsibility as well as strong intellectual and practical skills that span all major fields of study, such as communication, analytical and problem-solving skills, and includes a demonstrated ability to apply knowledge and skills in real-world settings.

LIBERAL ARTS: Specific disciplines (e.g., the humanities, sciences, and social sciences)

**LIBERAL ARTS COLLEGE**: A particular institutional type – often small, often residential – that facilitates close interaction between faculty and students, while grounding its curriculum in the liberal arts disciplines.

**ARTES LIBERALES**: Historically, the basis for the modern liberal arts: the trivium (grammar, logic and rhetoric) and the quadrivium (arithmetic, geometry, astronomy, and music).

**GENERAL EDUCATION**: The part of a liberal education curriculum shared by all students. It provides broad learning in liberal arts and science disciplines and forms the basis for developing important intellectual, civic and practical capacities. General education can take many forms, and increasingly includes introductory, advanced, and integrative forms of learning.

Adapted from: *Greater Expectations: A New Vision for Learning as a Nation Goes to College* (Association of American Colleges & Universities, 2002)

<sup>\*76%</sup> of employers would recommend this kind of program to college-bound students. These findings are taken from a survey of employers commissioned by AAC&U and conducted by Peter A. Hart Associates in November and December 2007. For a full report on the survey and its complete findings, see <a href="https://www.aacu.org/leap">www.aacu.org/leap</a>

# The Essential Learning Outcomes

\* \* \* \* \* \* \* \* \* \* \* \* \* \* \* \*

Beginning in school, and continuing at successively higher levels across their college studies, students should prepare for twenty-first-century challenges by gaining:

# ★ Knowledge of Human Cultures and the Physical and Natural World

 Through study in the sciences and mathematics, social sciences, humanities, histories, languages, and the arts

Focused by engagement with big questions, both contemporary and enduring

### **▼** Intellectual and Practical Skills, including

- · Inquiry and analysis
- · Critical and creative thinking
- · Written and oral communication
- · Quantitative literacy
- · Information literacy
- · Teamwork and problem solving

**Practiced extensively**, across the curriculum, in the context of progressively more challenging problems, projects, and standards for performance

# **★** Personal and Social Responsibility, including

- Civic knowledge and engagement—local and global
- · Intercultural knowledge and competence
- · Ethical reasoning and action
- · Foundations and skills for lifelong learning

Anchored through active involvement with diverse communities and real-world challenges

## **★** Integrative and Applied Learning, including

Synthesis and advanced accomplishment across general and specialized studies

**Demonstrated** through the application of knowledge, skills, and responsibilities to new settings and complex problems

Note: This listing was developed through a multiyear dialogue with hundreds of colleges and universities about needed goals for student learning; analysis of a long series of recommendations and reports from the business community; and analysis of the accreditation requirements for engineering, business, nursing, and teacher education. The findings are documented in previous publications of the Association of American Colleges and Universities: College Learning for the New Global Century (2007) and The LEAP Vision for Learning (2011). For more information, see www.aacu.org/leap.

# **Degree Qualifications Profile**

\*A template of competencies required for the award of college degrees at the associate, bachelor's, and master's levels

# Knowledge

At each degree level, every college student should demonstrate competence in using both specialized knowledge from at least one field and broad, integrative knowledge from arts and sciences fields. Both kinds of knowledge should be pursued from first to final year, providing opportunities for integration across fields and application to complex problems—in the student's area of emphasis, in out-of-school settings, and in civil society.

#### **Broad/Integrative Knowledge**

Key areas include the sciences, social sciences, humanities, arts, and global, intercultural and democratic learning.

In each area, students:

- · Learn key concepts and methods of inquiry
- Examine significant debates and questions
- Make evidence-based arguments In **addition**, at each degree level, students:
- Produce work that integrates concepts and methods from at least two fields

#### Specialized Knowledge

Students demonstrate depth of knowledge in a field and produce field-appropriate applications drawing on both major field and, at the B.A. level and beyond, other fields. Students learn:

- Discipline and field-specific knowledge
- · Purposes, methods, and limitations of field
- · Applied skills in field
- Integrative skills and methods drawing from multiple fields and disciplines.

#### Intellectual Skills

Students hone and integrate intellectual skills across the curriculum, applying those skills both to complex challenges within major fields and to broad, integrative problem-solving challenges. Skills include:

- Analytic inquiry
- Information literacy
- Engaging diverse perspectives
- Quantitative fluency
- Communication fluency

## **Civic Learning**

Students acquire knowledge required for responsible citizenship both from their formal studies (see knowledge and skills, above) and from community-based learning, and **demonstrate their ability to integrate both forms of learning in analyzing and addressing significant public problems and questions**. Civic learning may be demonstrated through: research, collaborative projects and/or field-based assignments.

# **Applied Learning**

Students demonstrate their ability to **integrate and apply their learning** (see knowledge and skills, above) in complex projects and assignments that may include: research, projects, practicums, internships, work assignments, performances, and creative tasks.

\*The Degree Qualifications Profile was commissioned by the Lumina Foundation following a series of national discussions about learning outcomes frameworks. It was released by the foundation as a **beta version** in January 2011 and is being tested in a number of grant-funded national experiments.

# Percentage of Employers Who Want Colleges to "Place More Emphasis" on Essential Learning Outcomes

\* \* \* \* \* \* \* \* \* \* \* \* \* \* \* \* \*

# **★** Knowledge of Human Cultures and the Physical and Natural World

Science and technology	70%
Global issues	67%*
The role of the United States in the world	57%
Cultural diversity in the United States and other countries	57%
Civic knowledge, participation, and engagement	52%*

### **★** Intellectual and Practical Skills

<ul> <li>Written and oral communication</li> </ul>	89%
Critical thinking and analytic reasoning	81%
Complex problem solving	75%
Teamwork skills in diverse groups	71%*
Creativity and innovation	70%
Information literacy	68%
Quantitative reasoning	63%

# **☀** Personal and Social Responsibility

Ethical decision making	75%
<ul> <li>Intercultural competence (teamwork in diverse groups)</li> </ul>	71%*
<ul> <li>Intercultural knowledge (global issues)</li> </ul>	67%*
<ul> <li>Civic knowledge, participation, and engagement</li> </ul>	52%*

# **★** Integrative and Applied Learning

Applied knowledge in real-world settings	79%

Note: These findings are taken from Raising the Bar: Employers' Views on College Learning in the Wake of the Economic Downturn, a survey of employers conducted for AAC&U by Hart Research Associates and published in 2010. For a full report on this survey and related employer findings, see www.aacu.org/leap.

<sup>\*</sup>Starred items are shown in multiple learning outcome categories because they apply to more than one.

## AAC&U Member Institutions' Learning Outcomes for All Students

\* \* \* \* \* \* \* \* \* \* \* \* \* \* \* \*

## **★** Knowledge of Human Cultures and the Physical and Natural World

Humanities	92%
• Sciences	91%
Social Sciences	90%
Global/World Cultures	87%
Mathematics	87%
Diversity in the United States	73%
United States History	49%
· Languages Other Than English	42%
Sustainability	24%

## **★ Intellectual and Practical Skills**

· Writing skills	99%
· Critical Thinking	95%
· Quantitative Reasoning	91%
Oral Communication	88%
· Intercultural Skills	79%*
Information Literacy	76%
Research skills	65%

## Personal and Social Responsibility

· Intercultural Skills	79%*
Ethical Reasoning	75%
Civic Engagement	68%

## ★ Integrative Learning

<ul> <li>Application of Learning</li> </ul>	66%	
· Integration of Learning	63%	

Note: Nearly 80% of AAC&U member institutions surveyed reported that they had a common set of learning outcomes for all students. Percentages cited above are the percentage of those with campus-wide goals reporting that this outcome is one of the learning goals they have for all students. This data was generated as part of AAC&U's initiative, Liberal Education and America's Promise (LEAP). The four categories of learning outcomes correspond to a set of "Essential Learning Outcomes" developed as part of LEAP. See www.aacu.org/leap and Learning and Assessment: Trends in Undergraduate Education—A Survey Among Members of the Association of American Colleges and Universities (AAC&U and Hart Research Associates, 2009).

<sup>\*</sup> The starred items are shown in two learning outcome categories because they apply to both.

# High-Impact Educational Practices

These widely tested teaching and learning innovations show substantial educational benefits, especially for college students from historically underserved backgrounds. But these practices remain optional rather than expected on most campuses.

#### First-Year Seminars and Experiences

Many schools now build into the curriculum first-year seminars or other programs that bring small groups of students together with faculty or staff on a regular basis. The highest-quality first-year experiences place a strong emphasis on critical inquiry, frequent writing, information literacy, collaborative learning, and other skills that develop students' intellectual and practical competencies. First-year seminars can also involve students with cutting-edge questions in scholarship and with faculty members' own research.

#### **Common Intellectual Experiences**

The older idea of a "core" curriculum has evolved into a variety of modern forms, such as a set of required common courses or a vertically organized general education program that includes advanced integrative studies and/or required participation in a learning community (see below). These programs often combine broad themes—e.g., technology and society, global interdependence—with a variety of curricular and cocurricular options for students.

#### **Learning Communities**

The key goals for learning communities are to encourage integration of learning across courses and to involve students with "big questions" that matter beyond the classroom. Students take two or more linked courses as a group and work closely with one another and with their professors. Many learning communities explore a common topic and/or common readings through the lenses of different disciplines. Some deliberately link "liberal arts" and "professional courses"; others feature service learning.

#### **Writing-Intensive Courses**

These courses emphasize writing at all levels of instruction and across the curriculum, including final-year projects. Students are encouraged to produce and revise various forms of writing for different audiences in different disciplines. The effectiveness of this repeated practice "across the curriculum" has led to parallel efforts in such areas as quantitative reasoning, oral communication, information literacy, and, on some campuses, ethical inquiry.

#### Collaborative Assignments and Projects

Collaborative learning combines two key goals: learning to work and solve problems in the company of others, and sharpening one's own understanding by listening seriously to the insights of others, especially those with different backgrounds and life experiences. Approaches range from study groups within a course, to team-based assignments and writing, to cooperative projects and research.

#### **Undergraduate Research**

Many colleges and universities are now providing research experiences for students in all disciplines. Undergraduate research, however, has been most prominently used in science disciplines. With strong support from the National Science Foundation and the research community, scientists are reshaping their courses to connect key concepts and questions with students' early and active involvement in systematic investigation and research. The goal is to involve students with actively contested questions, empirical observation, cutting-edge technologies, and the sense of excitement that comes from working to answer important questions.

#### **Diversity/Global Learning**

Many colleges and universities now emphasize courses and programs that help students explore cultures, life experiences, and worldviews different from their own. These studies—which may address U.S. diversity, world cultures, or both—often explore "difficult differences" such as racial, ethnic, and gender inequality, or continuing struggles around the globe for human rights, freedom, and power. Frequently, intercultural studies are augmented by experiential learning in the community and/or by study abroad.

## Service Learning, Community-Based Learning

In these programs, field-based "experiential learning" with community partners is an instructional strategy—and often a required part of the course. The idea is to give students direct experience with issues they are studying in the curriculum and with ongoing efforts to analyze and solve problems in the community. A key element in these programs is the opportunity students have to both *apply* what they are learning in real-world settings and *reflect* in a classroom setting on their service experiences. These programs model the idea that giving something back to the community is an important college outcome, and that working with community partners is good preparation for citizenship, work, and life.

#### Internships

Internships are another increasingly common form of experiential learning. The idea is to provide students with direct experience in a work setting—usually related to their career interests—and to give them the benefit of supervision and coaching from professionals in the field. If the internship is taken for course credit, students complete a project or paper that is approved by a faculty member.

### **Capstone Courses and Projects**

Whether they're called "senior capstones" or some other name, these culminating experiences require students nearing the end of their college years to create a project of some sort that integrates and applies what they've learned. The project might be a research paper, a performance, a portfolio of "best work," or an exhibit of artwork. Capstones are offered both in departmental programs and, increasingly, in general education as well.



## The Principles of Excellence



## Principle One

## **★** Aim High—and Make Excellence Inclusive

Make the Essential Learning Outcomes a Framework for the Entire Educational Experience, Connecting School, College, Work, and Life

## Principle Two

## Give Students a Compass

Focus Each Student's Plan of Study on Achieving the Essential Learning Outcomes—and Assess Progress

## Principle Three

## **★** Teach the Arts of Inquiry and Innovation

Immerse All Students in Analysis, Discovery, Problem Solving, and Communication, Beginning in School and Advancing in College

## Principle Four

## Engage the Big Questions

Teach through the Curriculum to Far-Reaching Issues—Contemporary and Enduring—in Science and Society, Cultures and Values, Global Interdependence, the Changing Economy, and Human Dignity and Freedom

## Principle Five

## Connect Knowledge with Choices and Action

Prepare Students for Citizenship and Work through Engaged and Guided Learning on "Real-World" Problems

## Principle Six

## \star Foster Civic, Intercultural, and Ethical Learning

Emphasize Personal and Social Responsibility, in Every Field of Study

## Principle Seven

## **★** Assess Students' Ability to Apply Learning to Complex Problems

Use Assessment to Deepen Learning and to Establish a Culture of Shared Purpose and Continuous Improvement

## **Statement of Principles**

## Prepared by the Massachusetts Team

- The AACU's LEAP Essential Learning Outcomes and Value Rubrics will be considered as the common framework for the development of a state-wide system of assessment.
- 2. A state-wide plan for assessment should be based on authentic student work and allow for the use of multiple measures of student learning indirect, direct, and embedded without a single mandated state-wide test.
- 3. Assessment approaches should involve an iterative process, and, as such, be viewed as a "work in progress."
- 4. State-wide assessment protocols should be available for use by departments and institutions.
- 5. A state-wide system of assessment should help to build and support a culture of student learning that allows for assessment results to be used by each campus for student learning and program improvement.

## Massachusetts Department of Higher Education



One Ashburton Place, Room 1401 Boston, MA 02108-1696 TEL (617) 994-6950 FAX (617) 727-0955 WEB www.mass.edu Richard M. Freeland, Commissioner

Charles F. Desmond, Chairman

Massachusetts Board of Higher Education

## Multi-State Collaborative Agreement December 10, 2012

This document represents an agreement among signatory states to work together in the development and pilot testing of a program for system level learning outcomes assessment. Although specifics and additional features will be worked out as part of the collaboration, several program components are accepted by the signatories as part of the basis for the agreement.

The program for system level learning outcomes will:

- 1. Be based on the assessment of authentic student work linked to learning outcomes, curricula and instruction at the campus level.
- Support both formative assessment within institutions and public accountability to external communities for campuses and state systems of public higher education.
- 3. Avoid the use of a mandatory standardized test. Individual campuses and state systems may choose to use tests as part of their overall programs of assessment, but participating state systems will not be required to use a standardized test as part of the Collaborative.
- 4. Take as a starting point a model using at least three LEAP Essential Learning Outcomes and Value Rubrics as a common framework (including written communication and quantitative literacy with discussion during first Collaborative meeting about critical thinking). The use of additional outcomes and rubrics may be considered either as part of the initial pilot or as candidates for future incorporation into the model.
- 5. Provide for reporting assessment data aggregated at the level of segments or systems of similar public institutions (e.g. 2 year colleges, 4 year, primarily baccalaureate institutions and universities). Individual states may choose to also report at the level of individual campuses but reporting at the campus level will not be required by the Collaborative. Public reporting in each state could be (in) accomplished in a manner consistent with other planning or performance reports in that state.
- 6. Allow for pilot testing in collaborating states with adjustments made to the model based on what is learned.

7. After appropriate testing, allow for comparisons at the segmental level in the public reporting of the levels of learning achieved by students across states participating in the Collaborative. This can be accomplished by alternative means, such as comparing aggregate assessment results across all participating states or by creating a benchmark and allowing each state to compare itself to the benchmark.

Participants in the Collaborative may wish to consider other assessment components for the model such as assessments designed to fit with the Degree Qualifications Profile; the NILOA-developed Transparency Framework; results from licensure exams; and surveys of student engagement such as NSSE and CCSSE, among other possibilities. The Collaborative will be open to considering additional components that any signatory state wishes to suggest.

Having joined the Collaborative, participating states agree to a good-faith intention to remain affiliated through the model development and pilot testing phases of the project. It is understood that states will have the opportunity to decide whether or not to fully implement the model (or a revised version of it) after the testing phase.

### **Description of Multi-State Collaborative Project**

For Use in Campus Discussions

This memo describes the effort to develop a Multi-State Collaborative to Advance Learning Outcomes Assessment. It is intended for use in campus discussions in states that have been involved in planning for the Collaborative. It has been prepared by Pat Crosson, Senior Advisor for Academic Policy at the Massachusetts Department of Higher Education and is based on several documents that are listed at the end of this memo. The documents are available through George Kohout, AMCOA Project Administrator at the Massachusetts Department of Higher Education (gkohout@bhe.mass.edu.)

#### **Background and Purpose**

The initial idea for a partnership of states to find a better way for states and campuses to work together on learning outcomes assessment comes from Massachusetts and is part of a broader system-wide project in that state. At the heart of the project is an effort to develop a program of learning outcomes assessment that builds on faculty and campus based formative assessment while adding features that provide for public reporting of results for sectors of institutions (e.g. community colleges, state universities, universities) and for comparisons across states. The Massachusetts approach seeks to avoid the use of a state-mandated standardized test. It aims to get past the tensions between formative assessment at the campus level and accountability-driven assessment at the state level by creating a model that serves both campuses and state systems and allows them to work together to improve student learning.

As an essential part of this work, Massachusetts has proposed a Multi-State Collaborative to Advance Learning Outcomes Assessment. States in the Collaborative would design and pilot test a campus/state system program for learning outcomes assessment that can work for all collaborating states and, hopefully, demonstrate for other states the viability of state level assessment practices that build from campus assessments. The motivation for the collaborative work among states comes from the belief that governors and state legislators will continue to expect accountability from public higher education in the area of student learning. If public higher education does not succeed in developing a workable collaborative system for assessment, we will likely be forced to live with state mandates for tests and rankings that do not support, and could well undermine, the work on campuses to use learning outcomes assessment for program improvements and student learning.

Sixteen states, including Connecticut, gathered at the State Higher Education Executive Officers (SHEEO) headquarters in Boulder, Colorado in May, 2012 to discuss the proposal for the Multi-State Collaborative. There was general agreement about the need for doing something different in the area of learning outcomes assessment and considerable enthusiasm for the idea of a multi-state, campus/system collaborative effort to work on this. The meeting was jointly sponsored by Massachusetts, SHEEO and the Association of American Colleges and Universities (AAC&U). The effort to develop a partnership among states is part of the Massachusetts LEAP State Initiative and is connected to AAC&U's excellent LEAP initiative.

The proposed Collaborative will operate in close connection with SHEEO. SHEEO will provide logistical support, take part in the deliberations and disseminate information about the work to other states. The work will be connected as well to SHEEO'S own work with the Peer Collaboration Network on Student Learning and Accountability. In Massachusetts, twenty two public campuses have signed on to be part the LEAP State initiative and two groups that include campus representatives and state level personnel are at work on various facets of preparation of a statewide model for learning outcomes assessment. A third is preparing to begin work with counterparts in other states.

#### **Goals for Multi-State Collaborative Assessment Program**

The Multi-State Collaborative proposal identifies several goals for the assessment program, including that it should:

- be centered on embedded assessment using actual student work;
- be closely linked to curricula at the campus level and to the instructional work of the faculty:
- include elements that are common to all institutions in a system but also allow for the use of multiple measures, including additional measures deemed appropriate by individual institutions or groups of institutions;
- take into account significant differences among institutions and student bodies with respect to level of academic preparation;
- be feasible for wide use by departments, institutions and systems in terms of cost and faculty workload.
- include a metric (or metrics) to describe levels of student learning that are useful for planning and program improvement at campus and department levels;
- integrate campus and system assessment in ways suitable for public presentation to outside, non-academic stakeholders; and
- allow comparisons of student learning at the segmental level across state lines.

## **Current Status and February 2013 Meeting**

Since the Boulder meeting in late May 2012, state leaders have been engaged in conversations within their states about participation, and there have been several conference calls for all states interested in the Collaborative. Paul Lingenfelter, President of SHEEO and Richard Freeland, Commissioner of Higher Education in Massachusetts have also been engaged in conversations with potential funding sources for this project. As of December 2012 it is anticipated that between 5 and 8 states will join the Multi-State Collaborative and sign an Agreement to work together in the development and pilot testing of a program for system level learning outcomes assessment. The Agreement identifies several key program components that are consistent with the goals described above and asks states to remain affiliated with the Collaborative through the program development and pilot testing phases. After that, each state will have the opportunity to decide whether or not to fully implement the model or a revised version of it.

The crucial program design and piloting work will be undertaken by a Working Group made up of an academic leader from the state system office as well as senior academic officers, faculty members, and assessment professionals from campuses in each participating Collaborative state. The Working Group will take as its starting point for deliberation a model using LEAP Essential Learning Outcomes and VALUE Rubrics as a common framework. LEAP emphasizes the importance of quality liberal education for all students in all collegiate institutions and all fields of study, close links to curricula and instructional activity, and assessments based on authentic student work. LEAP outcomes and rubrics were developed by faculty members and they enjoy broad support among faculty members and campuses throughout the country. Initially the Multi-State Collaborative work will focus on written communication and quantitative literacy. Use of the critical thinking rubric has been proposed as well and its inclusion in the initial model will be discussed at the first Working Group meeting.

Although LEAP outcomes and rubrics will be the starting point, Working Group members may wish to consider other assessment components for the model such as assessments designed to fit with the Degree Qualifications profile, the NILOA-developed Transparency Framework, results from licensure exams, and surveys of student engagement such as NSSE and CCSSE, among other possibilities. It is expected that the Working Group will prepare a model for system level assessment that includes agreed upon assessment metrics and methods, a system for recording, summarizing and analyzing results, and a plan for presenting the results in ways that are useful to faculty members, campuses and state systems and consistent with the goal of accountability to non-academic stakeholders. Public reports would present aggregate assessment data by institutional segment (2 year, 4 year etc) and avoid presentation of individual institution data although individual states may choose to also report institutional results within their states. The Working Group will also plan for pilot testing the model with collaborating campuses and state offices. The pilot test will allow a focus on issues of substance and feasibility and may lead to modifications in the model.

A February 2013 meeting has been planned for the Working Group and will take place if at least five states are prepared to join the Collaborative. The meeting will allow the Working Group to get started. It is hoped that the group will be able to develop initial agreements about:

- The basic framework and components of a model for statewide assessment,
- > A broad outline for a pilot test of the model,
- An initial strategy for presenting assessment results in ways that will be useful for campuses and the system as a whole, and
- A detailed plan for future work at both the state and collaborative levels to flesh out and refine the model components, develop guidelines for the pilot testing and prepare plans for data management and presentation of results.

It is clear to those involved in this effort to date that the Multi-State Collaborative to Advance Learning Outcomes Assessment will succeed only if we can manage to devise a program that suits the needs of campuses and state systems and really works to get past current tensions between formative and accountability-based assessment. For that to be possible, we need active collaboration among campuses and their state systems and collaboration across state systems as well. We need to put the quality of student learning at the top of the agenda. We also need active involvement of campus and state system academic personnel in the planning and development of the program and the plans for pilot testing. The work will not be easy but it has the potential to make a genuine difference in an increasingly important area of higher education.

#### **Documents**

The Working Group on Student Learning Outcomes and Assessment Phase I and Phase II Reports.

The First Annual Vision Project Report

The Massachusetts LEAP State Proposal

The Proposal for a Multi-State Collaborative to Advance Learning Outcomes Assessment The Multi-State Collaborative Agreement.

Statewide Learning Outcomes Assessment for Massachusetts and Partner States





## MULTI-STATE COLLABORATIVE TO ADVANCE LEARNING OUTCOMES ASSESSMENT February 10-11, 2013 Boulder, Colorado

Thank you for joining the first meeting of the Working Group for the Multi-State Collaborative to Advance Learning Outcomes Assessment. We have been preparing for some time and are very pleased to begin this collaborative effort to develop a new learning outcomes assessment model. During this meeting we will try to develop a set of "preliminary agreements" about several essential features that will then be explored in greater detail over the next months. These include:

- A framework and components for a model for assessment of student learning that is built on collaboration among public two and four year campuses and state systems of higher education;
- A process for pilot testing the model in collaborating states;
- A plan for managing and sharing project data; and
- An initial strategy for presenting assessment results in ways that will be useful for campuses, collaborating states and broader higher education and stakeholder audiences.

It is an ambitious list but it will allow us to use our time together to best advantage by focusing on all essential model elements. We will also begin discussions of importantly-related matters such as faculty engagement, dissemination of information to the broader higher education community, and project resources that will need our attention from the beginning as well. Finally, we will develop a clear plan and schedule for working together over the coming months.

#### **AGENDA**

#### **SUNDAY FEBRUARY 10**

3:00-5:45 P.M. SESSION 1— WELCOME AND INTRODUCTIONS Richard Freeland, Paul Lingenfelter, and Pat Crosson

LEARNING CENTER

Overview of the development of the Multi-State Collaborative and discussion of purposes, approaches, and agreements that have been outlined for this work, including:

- The Multi-State Collaborative Proposal;
- The provisions of the Multi-State Collaborative Agreement; and
- The potential development of a set of principles that, along with the Agreement, will form the basis of our collaborative effort.

6:00-6:30 P.M. Break and refreshments

EAST FOYER

6:30-8:30 P.M. SESSION 2—DINNER AND DISCUSSION OF LEARNING OUTCOMES ASSESSMENT IN COLLABORATIVE STATES

WEST FOYER

In this session we hope to build a strong foundation for our work together by sharing information about current assessment policies, practices, successes and challenges in participating states and campuses.

Multi-state Collaborative to Advance Learning Outcomes Assessment, February 10 and 11, 2013 Boulder, Colorado Page 2 of 2

#### **MONDAY FEBRUARY 11**

6:30-7:45 A.M. BUFFET BREAKFAST

PROVIDED AT THE MARRIOT RESIDENCE INN

8:00-10:30 A.M. SESSION 3—DEVELOP "PRELIMINARY AGREEMENTS"

LEARNING CENTER

In this session we will focus on:

- The selection of learning outcomes to be assessed;
- Methods and metrics to be used for statewide assessment;
- · Procedures for gathering student work and engaging faculty; and
- Plans for pilot testing, data management and presentations of results.

10:30-11:00 a.m. break East Foyer

11:30 A.M.-1:00 P.M. SESSION 4—LUNCH AND DEVELOPMENT OF A WORK PLAN

LEARNING CENTER

We will cover the following elements:

- Regular on-line communications and conference calls;
- Informal meetings at commonly attended events;
- The formation of Task-Groups to work on detailed plans for all "preliminary agreement" components;
- A plan for working together on documents and other follow up activities; and
- A Master Schedule and Agendas for in-person and conference call meetings.

1:00-1:30 p.m. break East Foyer

1:30-3:00 P.M. SESSION 5—CONVERSATIONS ON RELATED ISSUES AND CLOSING REMARKS

LEARNING CENTER

We will develop strategies for handling additional matters important to our collaboration including:

- Strategies for faculty engagement and professional development;
- Developing the equivalent of a "marketing plan" for dissemination of information about the model among the broader higher education community and stakeholders;
- Resource needs for model development and pilot testing; and
- Plans for next in-person meeting of the Working Group, ideally in June 2013.

CLOSING REMARKS: Paul Lingenfelter and Julie Carnahan.

## NEBHE Developmental Mathematics (DM) Demonstration Project – Getting Started Workshop

**Workshop Date:** Wednesday, March 27, 2013

**Workshop Time:** 8:45 a.m. - 3:45 p.m.

**Workshop Location:** Sturbridge Host Hotel and Conference Center

366 Main Street, Sturbridge, Massachusetts

(see directions below)

**Who is Invited:** Institutional and state system site coordinators, math department chairs, math faculty who will pilot Khan Academy in their DM classes, and institutional research staff

**Registration:** Community colleges may register up to five individuals. State systems may register up to ten individuals from their partner institutions. NEBHE has reserved a limited number of hotel rooms for those requiring overnight accommodations on March 26. To register for the workshop click on the following link: <a href="http://www.nebhe.org/nebhe-developmental-math-demonstration-project/dmdpworkshop-registration/">http://www.nebhe.org/nebhe-developmental-math-demonstration-project/dmdpworkshop-registration/</a>

**Registration Deadline:** Friday March 8, 2013

## **Tentative Agenda**

**8:45 – 9:30 a.m.** Registration and Breakfast

**9:30 – 9:45 a.m.** Welcome and Overview of the Day

**9:45 – 10:45 a.m.** Developmental Math Reform – Are We Making

Progress? Sites Report-Out

Developmental Math Demonstration Project Designs – *Sites Report-Out Implementation Goals and Plans and* 

Goals

**10:45 – 11:45 a.m.** Khan Academy Site Orienteering

**11:45 – 12:00 a.m.** Questions and Feedback for Khan Academy

**12:00 – 1:00 p.m.** Networking Lunch

**1:00 – 2:00 p.m.** Concurrent Sessions

A: Data to Measure Project Impact

B: Math Faculty Khan Academy Pathfinders Panel

**2:00 – 2:45 p.m.**DM Model Courses and Khan Academy Alignment Presentation and Discussion of Tools for Math Instructors

**2:45 – 3:45 p.m.** Team Project Planning Time

**Directions:** The Sturbridge Host Hotel & Conference Center is located on Route 20. From the North, East and West, take the Massachusetts Turnpike (Interstate 90) to Exit 9, Route 20 West. From the South, take either Interstate 84 or Route 131 to Route 20 West. The Sturbridge Host Hotel & Conference Center is located on the right just past the first set of traffic lights.

### MEMORANDUM OF AGREEMENT BETWEEN

#### Full Organization Name\_\_\_\_

and the New England Board of Higher Education

This Memorandum of Agreement ("the Agreement") is entered into on this	day of
, by and between the Full Organization Name ("Col	<mark>lege name''</mark> ) and the
New England Board of Higher Education ("NEBHE") for the purpose of co	onducting studies or
the effectiveness of using Khan Academy in developmental mathematics as	nd math pre-
matriculation programs and services.	

- I. <u>PARTIES</u>. The College is a state postsecondary educational institution, authorized to collect and maintain student educational records consistent with applicable state and federal laws and subject to the federal Family Educational Rights and Privacy Act (FERPA), as authorized by 20 U.S.C. § 1232g(b) and 34 CFR Part 99, and the Fair Information Practices Act (FIPA), M.G.L. c. 66A.
  - NEBHE is authorized by the U.S. Congress and promotes greater educational opportunities and services for the residents of the six New England states.
- II. <u>PURPOSE</u>. The purpose of the Agreement is to document the terms under which the College is authorized to release to NEBHE personally non identifiable student information for the project, and to designate NEBHE as the authorized representative of the College consistent with applicable federal and state laws concerning access to and confidentiality of student record information including FERPA and FIPA. As described herein, NEBHE as the College's authorized representative, may have temporary access to data in the custody of the college for use in the project identified in this Agreement and any addenda to it. A description of the project is attached hereto in Attachment A.
- III. <u>AUTHORITY</u>. Consistent with the federal Family Educational Rights and Privacy Act (FERPA), the college designates NEBHE as its agent for the purpose of disclosing personally identifiable information from students' education records in connection with the College's audit or evaluation of a federal or state supported education program, or for the enforcement of or compliance with federal legal requirements which relate to those programs pursuant to 34 CFR §§ 99.31(a)(1) and 99.35(a). Such disclosures are also consistent with the Fair Information Practices Act, M.G.L. c. 66A, § 2(c).
- IV. <u>DATA DISCLOSURE</u>. The <u>College</u> shall provide NEBHE using a secure portal with the following data sharing agreement variables See attachment B.

- V. <u>TERMS AND CONDITIONS</u>. To effect the transfer of data and information that is subject to State and Federal confidentiality laws and to ensure that the required confidentiality of personally identifiable information shall always be maintained, NEBHE agrees to:
  - 1. In all respects comply with the provisions of FERPA. For the purposes of the Agreement and the specific projects conducted pursuant to the Agreement and described in addenda to it, FERPA includes any amendments or other relevant provisions of federal law, as well as all requirements of 34 CFR Part 99 and 20 U.S.C. § 1232g. Nothing in this Agreement may be construed to allow either party to maintain, use, disclose, or share student record information in a manner not allowed under Federal law or regulation.
  - 2. For purposes of this project and for ensuing NEBHE's compliance with the terms of this Agreement and all applicable state and federal laws, "The College" designates NEBHE as the temporary custodian of the College's data. The College will release all data and information for this project to the named temporary custodian Monnica Chan, NEBHE's Director of Research and Research. Ms. Chan shall be responsible for transmitting all data requests and maintaining a log or other record of all data requested and received pursuant to the Agreement, including confirmation of the completion of the project and the return or destruction of data as described below. The College or its agents may upon request review the records required to be kept by NEBHE under this Agreement.

The College designates name of individual as its liaison for all communications with NEBHE regarding this project and the Agreement as it relates to the project.

- 3. Use data shared under the Agreement for no purpose other than the research project described in this Agreement, and as authorized under 34 CFR §§ 99.31(a)(1) and 99.35(a). Nothing in the Agreement shall be construed to authorize NEBHE to have access to additional data from the College that is not included in the scope of the Agreement, or to govern access to the data by entities other than the Parties. NEBHE further agrees not to share data received under the Agreement with any other entity without prior written approval from the College. NEBHE further understands that the Agreement does not convey ownership of data to NEBHE.
- 4. Require all employees, contractors, and agents of any kind to comply with the Agreement and all applicable provisions of FERPA and other federal and state laws with respect to the data and information shared under the Agreement. NEBHE agrees to require of and maintain an appropriate confidentiality agreement from each employee, contractor, or agency with access to data pursuant to the Agreement. Nothing in this section authorizes NEBHE to share data and information provided under the Agreement with any other individual or entity for any purpose other than completing NEBHE's work as authorized by the College consistent with this Agreement.

- 5. Not amend or alter the scope, design, format, or description of a project or report generated by NEBHE for this project, except as consistent with the Agreement, without prior written notice to the College.
- 6. Maintain all data received pursuant to the Agreement separate from all other data files and not copy, reproduce, or transmit data obtained pursuant to the Agreement except to NEBHE's own agents acting for or on behalf of the College and as necessary to fulfill the purpose of the project described herein. Data may not be taken outside the United States. All copies of data of any type, including any modifications or additions to data from any source that contains information regarding students, are subject to the provisions of the Agreement and in the same manner as the original data disclosed by the College to NEBHE. The ability to access or maintain data under the Agreement shall not under any circumstances transfer from NEBHE to any other individual, institution, or entity.
- 7. Not disclose data contained under the Agreement to it in any manner that could identify any individual student, except as authorized by FERPA, to any entity other than the College, or authorized employees, contractors, and agents of NEBHE working as the College's authorized representative on the project approved by the College consistent with this Agreement. Persons participating in the approved project on behalf of the Parties shall neither disclose or otherwise release data and reports relating to an individual student, nor disclose information relating to a group or category of students without ensuring the confidentiality of individual students in that group. Publications and reports of this data and information related to it, including preliminary project descriptions and draft reports, shall involve only aggregate data and no personally identifiable information or other information that could lead to the identification of any student. No report of aggregate data based on an identifiable group of students fewer than ten in number shall be released to anyone other than the College. NEBHE shall require that all employees, contractors, and agents working on this project abide by that statistical cell size.
- 8. Not provide any data obtained under this Agreement to any entity or person ineligible to receive data protected by FERPA, or prohibited from receiving data from any entity by virtue of a finding under 34 CFR § 99.31(a)(6)(iii).
- 9. a) Implement administrative, physical and technical safeguards that reasonably and appropriately protect the confidentiality, security and integrity of data obtained pursuant to the Agreement and that prevent use and disclosure of such data other than as permitted under the Agreement.
  - b) Immediately inform the College when NEBHE either (1) knows, or has reason to know, of a breach of security with respect to the data provided under this Agreement, or (2) when NEBHE knows, or has reason to know, that any of the data described in section was acquired or used by an unauthorized person or used for an unauthorized purpose. Notice shall be given by telephone and by email to the College staff member

name, email address, and other parties as specified. In addition to informing the College as provided herein, NEBHE shall cooperate with the College and such other state and federal entities as necessary in the investigation and further reporting of such breach.

- 10. Destroy all data obtained under the Agreement and addenda to it when no longer needed for the purpose for which it was released by the Department. Nothing in this Agreement authorizes NEBHE to maintain data beyond the time period reasonably needed to complete the project and respond to inquiries from other researchers, defined as 12 months following the date of publication of the final report of this project. Upon termination of the Agreement or publication of reports generated under this Agreement, as authorized by the College, whichever occurs first, NEBHE will return all data files and hard copy records to the College and purge any copies of data from its computer systems in compliance with 34 CFR §§ 99.31(a)(6)(ii)(b) and 99.35(b)(2). NEBHE agrees to require all employees, contractors, or agents of any kind working on the project to comply with this provision. No other entity is authorized to continue research using the data obtained under the Agreement upon the termination of the Agreement and project described herein.
- 11. Provide the College with an electronic copy of the final versions of all reports and other documents associated with the project. The Department, as the owner of the report, reserves the right to distribute and otherwise use the final report and associated documents as it wishes, in sum or in part.
- 12. The College shall be provided reasonable notification of any changes in the College's policies regarding limits on the use of confidential data and, as agents of the College, shall either affirmatively agree to uphold these policies or relinquish access to the data.
- VI. <u>COMPLIANCE WITH FIPA</u>. For the purposes of FIPA, insert pertinent state statute, NEBHE is a "holder" of personal data and will comply in all respects with the applicable requirements of FIPA, a copy of which is available at insert pertinent state statute.
- VII. <u>RELATED PARTIES</u>. NEBHE represents that it is authorized to bind to the terms of the Agreement, including confidentiality, maintenance, publication, and destruction or return of data, all related or associated institutions, individuals, employees or contractors who may have access to the data or may own, lease, or control equipment or facilities of any kind where the data is stored, maintained or use in any way.
- VIII. <u>TERM</u>. This Agreement takes effect upon signature by the authorized representative of each party and shall remain in effect until the data access time period defined in paragraph 10 has ended, or until canceled by either party upon 30 days written notice, whichever occurs first. The Agreement is renewable upon written approval by the authorized representative of each party.

Name of College Signatory and Title	Date	
Name of NEBHE Signatory and Title	Date	
Attachment A: Project description Attachment B: Data sharing agreement variables		

NEBHE, and in a manner consistent with applicable state and federal laws.

IX. This Agreement expresses the entire agreement of the parties and shall not be modified or altered except in writing executed by the authorized representatives of the College and

#### Attachment A

#### NEBHE Developmental Mathematics Demonstration Project Description

The New England Board of Higher Education (NEBHE) was awarded a three-year grant from the Lumina Foundation to support a developmental mathematics demonstration project that provides a high-quality, low-cost instructional platform coupling Khan Academy and community college resources.

The project aims to boost the number of high-quality college degrees and credentials by improving student performance in developmental mathematics, and to further drive reform of developmental education, including new designs, lower costs and improved student outcomes.

The following state systems and community colleges are participating in the project:

- Connecticut Board of Regents for Higher Education
- Community College System of New Hampshire
- Community College of Vermont
- Housatonic Community College
- Middlesex Community College (CT)
- Middlesex Community College (MA)
- Mt. Wachusett Community College
- Community College of Rhode Island

The purpose of this Memorandum of Agreement is to enable studies to be conducted on the effectiveness of using Khan Academy in developmental mathematics and math prematriculation programs and services.

#### Attachment B

## **Data Sharing Agreement Variables**<sup>1</sup>

### I Data variables for all participating colleges/systems

Variables for pre- or post- matriculation programs using Khan Academy include:

- Student identification numbers using a randomized protocol developed by demonstration sites/state systems
- Race/Ethnicity using IPEDS definitions
- Gender
- Pell Grant status (as a proxy for family income), if available
- Age reported in age bands (<18,18-24, 25-34, 35+)
- Name of pre-matriculation program, if applicable
- Developmental course name and date taken
- Developmental course number
- Developmental course level
- Developmental course instructional approach
- Number of Khan Academy videos watched
- Number of Khan Academy exercises (skills) started
- Number of Khan Academy exercises (skills) proficient
- Number of Khan Academy practice problems attempted
- Number of Khan Academy practice problems correct
- Developmental course grade
- Student enrollment in a subsequent developmental or for "transfer credit" math course
- Grade in subsequent math course and date taken

Base-line data variables to be collected for comparative purposes by developmental course name, number and level for the 2011-12 academic year:

- Student Race/Ethnicity breakdowns using IPEDS definitions
- Gender ratio
- % of Pell Grant recipients
- Age reported in age bands (<18,18-24, 25-34, 35+)
- Student enrollment rates in a subsequent developmental or for transfer credit math course
- Student completion rate (C or higher) in DM course
- Student completion rate (C or higher) in subsequent math course and date taken

## II Optional for colleges/systems that plan to serve high school students

Variables to be collected for in the aggregate for students enrolled in high school participating in pre-matriculation programs include:

<sup>&</sup>lt;sup>1</sup> NB: In addition to these *quantitative* data variables, NEBHE will work with all sites to administer feedback surveys for faculty and students, per the Project Letter of Intent.

- Name of pre-matriculation program
- Type of pre-matriculation program
- Number of participating students reported by high school
- Average number of Khan Academy videos watched
- Average number of Khan Academy exercises (skills) started
- Average number of Khan Academy exercises (skills) proficient
- Average number of Khan Academy practice problems attempted
- Average number of Khan Academy practice problems correct
- Students' enrollment in a subsequent developmental and for "transfer credit" math course at the postsecondary level, if applicable (by number and %)
- Average grade, range of grades and course completion rates in subsequent developmental math and for "transfer credit" math course at the postsecondary level for prematriculation students, if applicable
- Pre-and-post placement test pass/fail data (by number and %), if applicable

## III <u>Optional</u> for institutions that plan to collect additional data to measure Khan Academy usage impact on:

#### • Institutional cost

- o Salaried costs before and after demonstration project
- o Hourly personnel costs before and after demonstration project
- o Fixed costs (instructional materials, etc) before and after demonstration project

#### • Student performance relative to college placement exams

- College placement exam(s), and cut-off score(s)
- o Student placement exam score prior to developmental math course
- Student placement exam score at the end of developmental math course, if applicable

#### • Student performance in treatment compared to control groups

- Student identification numbers using a randomized protocol developed by demonstration sites/state systems
- o Race/Ethnicity using IPEDS definitions
- o Gender
- o Pell Grant status (as a proxy for family income)
- o Age reported in age bands (<18,18-24, 25-34, 35+)
- o Name of pre-matriculation program, if applicable
- o Developmental course name and date taken
- Developmental course number
- o Developmental course level
- o Developmental course instructional approach
- o Developmental course grade
- Student enrollment in a subsequent developmental or for transfer credit math course
- o Grade in subsequent math course and date taken