

ACADEMIC AFFAIRS COUNCIL

AGENDA ITEM: 4.C.1

DATE: March 30, 2010

SUBJECT: New Site Request – DSU – BS in Computer Science, Internet

Dakota State University requests authorization to deliver its B.S. in Computer Science using the Internet. The courses are ready for Internet delivery. DSU reports that there are no additional costs in offering this program via the Internet.

The new site request supports the Board’s strategic goals and State initiatives:

- Educational Attainment: Increase number of graduates by providing off-campus access to programs.
- Economic Development & Quality of Life: Contribute to workforce development. The program prepares students for a variety of careers.
- 2010 Education: Double the number of persons ages 25 and older engaged in postsecondary education. *Off-campus students are often age 25 and older.*
- Governor’s Office of Economic Development: Computer/IT is one of five targeted industries.
http://www.sdreadytowork.com/targets_links.asp
- Workforce 2025: The program will prepare people for careers in the information technology industry.

DSU reports that this is on the EUC “proposed for development” list.

RECOMMENDED ACTION

Provide comments to Paul G. for the COPS coversheet.

**South Dakota Board of Regents
Request for Authorization to Offer an Existing Program at a New Site**

University	Dakota State University
Degree(s) and Program	B.S.in Computer Science
New Site(s)	Distance (Internet)
Proposed Implementation (term)	Fall 2010

University Approval

To the Board and the Executive Director: I certify that I have read this request, that I believe it to be accurate, and that it has been evaluated and approved as provided by university policy.



2/8/10

President of the University

Date

After approval by the President, a signed copy of the request should be transmitted to the Executive Director. Post the request on the university web site and notify the Board staff and the other universities of the URL.

1. What is the need for this program in this site (these sites)? What is the expected demand for graduates in the site(s)?

DSU is requesting permission to deliver its B.S. in Computer Science via distance (Internet). This degree is currently offered on the university campus and in Sioux Falls at the University Center. Because of the emphasis on information technology in the South Dakota economy, the university has received requests to make the degree program available to a wider audience. Moving this program to distance delivery (Internet) will provide greater access to students outside the Madison and Sioux Falls areas and will contribute to work force development.

The South Dakota Department of Labor’s estimates and projections for several computer science occupations are provided below. As the “Percent Change” column indicates, job demand is increasing in all computer-science career areas – in some areas as much as 67%; in other areas as little as 2%. But, overall, it appears as though at least moderate job growth is expected in all computer science career fields in South Dakota.

South Dakota Occupational Projections, 2006-2016
Selected Computer Science Occupations

SOC * Code	Occupational Title	2006 Base Number of Jobs	2016 Projected Number of Jobs	Percent Change	Jobs Due to Growth	Jobs Due to Replacement	Total Average Annual Demand
151021	Computer Programmers	575	590	2.6%	2	12	14
151031	Computer Software Engineers, Applications	605	1015	67.8%	41	9	50
151032	Computer Software Engineers, Systems Software	390	565	44.9%	18	6	24
151041	Computer Support Specialists	1530	1805	18.0%	28	48	76
151051	Computer Systems Analysts	635	820	29.1%	19	17	36
151061	Database Administrators	85	115	35.3%	3	1	4
151071	Network and Computer Systems Administrators	1210	1565	29.3%	36	28	64
151081	Network Systems and Data Communications Analysts	745	1155	55.0%	41	15	56

Source: SD DOL Labor Market Information Center web site, Accessed December 3, 2008.

<http://www.state.sd.us/dol/lmic/menuprojections.htm>.

*Standard Occupational Classification (SOC), U.S. Bureau of Labor Statistics. <http://www.bls.gov/soc>

The degree program supports the Governor’s 2010 initiative, particularly Goal 3C: Develop research and technology infrastructure at our universities and within the private sector.

Computer / IT is one of the growth industries targeted for recruitment by the Governor’s Office of Economic Development and was highlighted in its “Ready to Work” program in 2008. (For additional information about the Ready to Work program, see URL:

http://www.sdreadytowork.com/targets_links.asp

The degree program also supports several of the Governor’s 2010 education goals (URL: <http://www.2010education.com/GoalsAndObjectives.htm>):

- Goal 2: By 2010, South Dakota will be first in the nation for the percentage of students going on to college, technical school or advanced training.
- Goal 3, Objective 3B: Expand the number of citizens with postsecondary education and training by 20 percent by doubling the number of persons ages 25 and older engaged in postsecondary education.

Overall, graduates of DSU’s current, campus-based computer science degree program have experienced excellent job placement, with placement rates and average starting salaries increasing in the last several years to pre-2006 levels:

2008 - 93% Average Starting Salary: \$42,578
 2007 - 100% Average Starting Salary: \$39,771
 2006 - 75% Average Starting Salary: \$32,981
 2005 - 95% Average Starting Salary: \$37,071

2. **Is any regental university authorized to offer a similar program at the new site(s)? Is any non-system institution offering a similar program at the new site(s)? If either answer is “yes,” identify the institution(s) and program(s) and explain why authorization is requested.**

DSU, SDSM&T, SDSU and USD offer a B.S. in Computer Science degree. The other universities are not approved to offer the B.S. in Computer Science by distance (Internet).

DSU was approved to offer the B.S. in Computer Science at University Center in Sioux Falls (*Board Minutes, 2002 October, pp. 2421, 2553-2573*).

3. **Are students expected to be new to the university or redirected from other programs or both? Complete the table and explain how the estimates were developed. How will the new site(s) affect enrollments in other campus and off-campus programs in the regental system?**

Students will be both new to the university and may be redirected from DSU’s face-to-face, program at University Center. Non-traditional students particularly like the flexibility of online programs, which allow them to continue to live and work anywhere in the state while they’re completing their degree.

The on-campus program at DSU has very strong enrollments. Fall 2009 enrollments were approximately 87 students. It is not expected that the distance-delivered program will have much impact on the campus enrollments, although it may have some impact on University Center face-to-face courses. However, it is also expected that distance delivery will enhance the enrollments in some of the UC face-to-face courses since distance delivery makes it easier to complete the degree program.

B.S. in Computer Science	Fiscal Years*			
	1st	2nd	3rd	4th
Estimated	FY11	FY12	FY13	FY14
New to the university	7	12	12	12
Redirected from other programs	5	0	0	0
Continuing students	0	12	24	36
= Total in the program at the site	12	24	36	48
Credit hours, majors in program courses**	52	456	1548	3360
Graduates	0	0	0	12

* Do not include current year.

** This is the total number of credit hours generated by the majors in the required or elective program courses.

4. **Complete the table and explain any special circumstances. Attach a copy of the program as it appears in the current catalog. If any program modifications are requested, attach that form. Explain how the new courses will be delivered. Attach the new course request forms.**

The curriculum for the existing program is included in Appendix A. No program modifications or new courses are being requested along with this new site request. As indicated in Appendix A, all courses in the major are already available as distance-delivered courses – most are offered by DSU and some by other regental institutions. DSU will work collaboratively with the other regental institutions as the distance program is developed, will examine the distance-delivered offerings from the other regental institutions, and will incorporate them into the delivery plan.

B.S. in Computer Science	Credit hours	Credit hours currently available from this university via distance	Credit hours currently available from other universities via distance	Credit hours that need to be developed for distance delivery by this university
System General Education Requirements	30	18	12	0
Institutional Graduation Requirements	11	8	3	0
<i>Subtotal, Degree Requirements</i>	<i>41</i>			
Required Support Courses	0	0	0	0
Major Requirements	51	51	3	0
Major Electives or Minor	19	12	7	0
<i>Subtotal, Requirements of the Major</i>	<i>70</i>			
Free Electives	17	17	17	0
<i>Total, Degree with Proposed Major</i>	<i>128</i>			

5. How will you provide student services comparable to those available for students on the main campus?

DSU has an existing infrastructure for students who take courses and programs via distance. This infrastructure includes student services. Library and other support services are available via the university’s web site to students, regardless of location. Some student services are also available via EUC. Since DSU already offers a variety of degree programs via distance / Internet (both undergraduate and graduate), we do not anticipate any difficulties provide appropriate student services for this degree program.

6. Is this program accredited by a specialized accrediting body? If so, address any program accreditation issues and costs related to offering the program at the new site(s).

None.

7. Does the University request any exceptions to Board policy for delivery at the new site(s)? Explain requests for exceptions to Board policy. If no exceptions are requested, enter “None.”

None.

8. **Costs, Budget & Resources: Explain the amount and source(s) of any one-time and continuing investments in personnel, professional development, release time, instructional technology and software, other O&M, facilities, etc needed to implement the program at the new site(s).**

A budget is not included because all courses are currently available by Internet delivery. There are no additional costs in offering this degree program via Internet.

Appendix A
B.S. in Computer Science

Prefix	Number	Course Title	Hours	Distance
		General Education Requirements	30	B, D, N, S, U
		Institutional Graduation Requirements	11	D
CIS	245	Info Security Fundamentals	3	D
CIS	332	Structured Systems Analysis & Design	3	D
CIS	383	Networking I	3	D
CIS	484	Database Management Systems	3	D
CSC	250	Computer Science II	3	D, U
CSC	260	Object-Oriented Design	3	D
CSC	300	Data Structures	3	D
CSC	314	Assembly Language	3	D
CSC	317	Computer Organization & Architecture	3	D
CSC	456	Operating Systems	3	D
CSC	461	Programming Languages	3	D
CSC	466	Language Processing	3	D
CSC	470	Software Engineering	3	D
CSC	482	Algorithms and Optimization	3	D
Select three 300/400 level CSC/CIS courses in addition to the courses listed in the major			9	D
MATH	123	Calculus I	4	U
MATH	201	Intro to Discrete Math	3	D
MATH	281	Intro to Statistics	3	B
	OR			
MATH	381	Intro to Prob & Stats		-
MATH	316	Discrete Mathematics	3	D
Math Electives – MATH 125 or MATH 200 level or above (except MATH 341/342)			6	B, D, N, S, U
Electives			17	B, D, N, S, U
TOTAL			128	

Currently offered at a distance: B=BHSU, D=DSU, N=NSU, S=SDSU, U=USD