department was able to hire one new faculty member, Dr. Jiaofei Zhong, to teach Computer Science theory. We have another search this year for another computer scientist with knowledge in topical areas such as big data, application development, and cloud computing.

Our assessment plans have been moving forward. We have mapped institutional learning

C. Program Changes and Needs

Since our last five year review, two new hybrid courses have been added to the Computer Networks curriculum: Security in Mobile, Wireless, Grid and Pervasive Computing (CS 4526) and Security Management (CS 4527).

Faculty Data:

Name	Base	
Billard, Ted	0.11	(FERP)
Brown, Kevin	1.0	
Christianson, Leann	1.0	
Daley, Jim	0.22	(FERP)
Ertaul, Levent	1.0	
Grewe, Lynne	1.0	
Johnson, Matt	1.0	
Jurca, Dan	0.44	(FERP)
Reiter, Eddie	0.5	(FERP)
Roohparvar, Farzan	1.0	
Simon, Steve	0.44	(FERP)
Thibault, William	1.0	
Yang, David	1.0	
Yu, Ytha	0.5	(FERP)
Zhong, Fay	1.0	
Total:	11.21	

Resources and Needs:

The Computer Science Department was drastically impacted by IT Centralization several years back. Up until last year, we had only one small computing lab with less than a dozen machines -- despite the number of students in the majors – and only one computer classroom. This year we were finally able to obtain at least primary usage to a second newly renovated computer classroom,

in VBT. CS is still SEVERELY underequipped. Students often try to make do with their own laptops and general purpose space (like the Cave of the Science building), but this often leads to difficulties from incompatibilities among their laptops. Many courses in the curriculum require dedicated servers that isolated from the campus networks, as students write programs to interact or query these servers. Getting these configurations set up is difficult when IT centrally manages all systems on campus. Classroom space, retiring faculty, equipment and software upgrades, and lack of dedicated IT support are all issues that impact the program's future growth.

2. SUMMARY OF ASSESSMENT (about 1 page)

A. Program Student Learning Outcomes

Students graduating with a Bachelor of Science in Computer Science will be able to:

1. apply knowledge of mathematics and computational theory to appropriate problems in computer science
2. analyze a problem, and identify and define the resources and requirements needed for its solution
3. design and implement a program to meet stated needs
4. develop and maintain computer-based systems, processes, and platforms
5. recognize and distinguish the mechanisms, components and architecture of computing systems
6.

B. Program Student Learning Outcome(s) Assessed

1. apply knowledge of mathematics and computational theory to appropriate problems in computer science
2. analyze a problem, and identify and define the resources and requirements needed for its solution

C. Summary of Assessment Process

We created SLOs and PLOs for the B.S. in Computer Science in the academic year 2012-2013. The Math and Computer Science Department in which this degree is housed made the decision to use Blackboard as a means to provide students with an assessment exam that addresses the SLOs of each course which are aligned to the PLOs for each program and the ILOs of the university. We have these in place for 11 key courses in the Computer Science program at this time. The results of these exams are being stored in a separate Blackboard shell repository for the department. Evaluating the results of these exams is challenging, as each assessment contains questions for multiple PLOs. We are currently looking at averages over the entire exam, which is suboptimal. Due to this, we are considering other options. The existing version of Blackboard unfortunately does not support aggregation and comparison of assessments across multiple courses.

We have also had a problem of oversubscribed classes. The university has limits on class sizes while students register for classes during specific scheduled time slots. Students have regularly signed up for many more courses than they intend to take, and drop courses at a later time. While this may seem like purely an administrative inconvenience, it does create concrete pedagogical problems. Because students join the program with varying backgrounds, incoming students in some sense compete with existing students for many of the same classes. Since incoming students register after existing students, they are the ones who are often shut out of the classes they should be taking. This increases the chance they end up trying to learn material that is beyond them. To handle this problem, the department has started to limit early registration for courses. Early indications are positive. New students have been able to sign up for courses with very few complaints.

Annual Data:

A. Student Headcount:

C. Faculty Information:

Please note that the university does not calcu grams.
Please see above (Program Needs) for informatio

Computer Science, Computer Network, and Mathema
Faculty
Tenured/TrackMr

D. Student Faculty Ratios:

Computer Science and Networks	Fall Quarter				
Student Faculty Ratios	2009	2010	2011	2012	2013
1. Tenured/Track	17.8	16.8	14.7	17.1	19.4
2. Lecturer	22.3	26.4	23.6	27.5	30.2
3. SFR By Level (All Faculty)	18.8	17.5	15.5	18.5	21.5
4. Lower Division	26.7	24.6	22.5	20.8	24.9
5. Upper Division	18.0	17.0	17.5	20.2	21.4
6. Graduate	16.6	15.9	10.1	14.5	19.8

E. Sections:

Computer Science and Networks	Fall Quarter				
Section Size	2009	2010	2011	2012	2013
1. Number of Sections Offered	47.0	39.7	47.8	37.0	45.8