

University of North Alabama Academic Department Review Guidelines

1. Title Page

- a) Computer Information Systems
- b) Paulette Alexander and Signature of Chair
- c) July 30, 2008

2. Five-Year Departmental Enrollment and Faculty Data

- Ø Review Five-Year report for trends, patterns, and/or significant changes.

Departmental Assessment

The University of North Alabama is committed to ongoing, integrated, and institution-wide research-based planning and evaluation processes. To this end, each department, as a whole, should be evaluated to ensure that departmental goals, strategies, and projected outcomes are congruent to and support the institution's mission and strategic plan.

Specifically, the department should show that it 1) incorporates a systematic review of institutional mission, goals, and outcomes; 2) this review results in continuing improvement in departmental quality; and 3) th

division courses in the major. These changes have required that students in other majors who in times past had enrolled in upper division courses as electives seek other elective courses. And majors which had included some of our courses within their prescribed course options list have chosen other avenues for their students. Only majors within the geography department continue to expressly require that their students take courses in CIS. A related issue is a fairly strict adherence to the new prerequisite sequence for the upper division courses. The purpose of this change is to assure the depth required for ABET accreditation.

The second impact on enrollment results from a change to a 30 hour major. No electives are available within the major, but many of the students choosing the Enterprise Information Systems option often do take courses available as part of the End User Computing option. With the Fall 2008 semester, it is expected that almost all of the students who enrolled under pre-2006 catalogs have either graduated or changed catalogs and will be expected to adhere to the new curriculum requirements.

Ø Degree productivity

The ratio of undergraduate majors to degrees conferred has not varied significantly during the period under review and has been only slightly higher than four every year in the study period. Assuming that students in this four year degree program are distributed proportionately among the four classifications, a ratio of four would indicate a stable pattern of graduation with minimal retention or failure to graduate issues.

Data are not included on the Five-Year Deo

and communicating expectations to students. Each faculty member reported actions which would be taken to incorporate lessons learned at the workshop in their class plans the following semester.

During Spring 2008, the CIS Department held a one day workshop in Creative Suite 3, an Adobe product which has been added to the University's software license inventory. This new software has been requested for several years, but cost and licensing restrictions have prevented our acquiring this software previously. Now that it is available it will allow us to significantly upgrade several applications courses, specifically those in the End User Computing major option. Trainers from a software training company with expertise in the particular software package conducted the workshop, which was also attended by Computer Services and Educational Technology

Library resources are adequate for our programs.

Ø Laboratories

As long as we maintain a pattern of replacement of the computers, printers, and other equipment, and as long as we have timely support from Computer Services, our present laboratories are adequate. Efforts are underway to build a networking/projects lab off line which will complete our package of laboratories essential to the support of our curriculum. The final action report from ABET noted the excellence of our technology infrastructure to support our programs.

Ø Equipment

Equipment available to our faculty, staff, and students is presently adequate for our program needs, as long as our current replacement patterns prevail so that all faculty, staff, and students have current technology available.

Ø Space

Present space is sufficient for our programs.

Ø Support personnel

The Department has a full-time secretary and student workers budgeted at 60 hours per week (40 hours per week in support of our operation of 6 computer labs) and 20 hours per week in support of office activities. This direct support, together with the general support from the College of Business, is sufficient for our programs at present.

6. List any notable achievements by the department

Ø Departmental achievements

ABET Accreditation.

Ø Student achievements

Students have regularly competed successfully at state and National Phi Beta Lambda Competitions . This year's CIS major winners at state level include:

First Place:

Sammi Jo McConnell – Information Management
Jerrod Terry – Database Design and Applications
Jason Parker – Website Development
Chris Latham – Future Business Teacher competition
Chris Latham – Business Communication

Second Place:

Sammi Jo McConnell – Computer Applications

Anand Udeshi – Cyber Security

Two of these students placed in the national competition as follows:

Future Business Teacher - 5th place - Chris Latham (\$100 cash award from South-Western Publishing Co.)

Database Design and Applications - 7th place - Jerrod Terry

During the spring 2008 semester, seven teams from CIS 660 (e-Commerce) competed in the Google Online Marketing Challenge. The teams were divided into three geographical regions: (1) the Americas, (2) Europe, the Middle East, and Africa, and (3) Asia and the Pacific. Fifty semi-finalist teams were selected from each region, which represents 9% of the teams entered. Three of the 50 semi-finalist teams from the Americas were from UNA.

The challenge required the pairing of each student team with a local business that has some kind of web presence. Each team was given \$200 to spend on a Google Adwords campaign on behalf of their chosen business. Students devised their online marketing strategies, analyzed their performance, and modified their campaigns based on their analysis during the course of their six week campaigns. Over 1600 student teams from 47 countries competed in the contest. Results were judged based on campaign statistics and submitted reports judged by a panel of international academics.

The UNA semi-finalist teams were

- CIS 660-I03—Vildan Ozerturk, Donna Smith, Chad Sanders, Lauren Humphrey, and Adam Benghe worked with Mr. Robert Rohling, owner of PartyPaperDirect.com in Sheffield.
- CIS 660-01—Sudeep Uprety, Subeksha Poudel, Killol Chauhan, Rochak Mainali, and Bijay Shahi worked with Sarah Knight, owner of Addiction Clothing Boutique (shopaddiction.net).
- CIS 660-01—Matthew Maclachlan, Neha Patel, Nigamkumar Patel, and Rajesh Thapa, also from CIS 660-01, worked with Mr. Bill Pitner, manager of Story and Lee Furniture (storyandlee.com).

More details can be found at <http://www.google.com/onlinechallenge/>

Ø Grants and other funds generated by department

A team led by Dr. Yingping Huang received a University Research Grant for \$2000 in 2006 for an intrusion detection system and has enabled research on intrusion detection algorithms.

Students in the CIS 486 Projects class in Summer 2008 worked on a USDA-grant-funded project in GIS/geodatabase design and implementation for the City of Florence Urban Forestry Department. The students were paid a salary for their work and were

screened through normal Human Resources processes for city employees. Two of the three CIS 486 students continued to work on the project after the conclusion of the class.

Ø Other awards and distinctions

Several students and faculty have been named to membership in Delta Mu Delta (business honorary) in recent years.

7. How has the department responded to previous program review recommendations?

Ø Itemize each major recommendation and state the response

This is the first program review under this policy. Previously our ABET accreditation team reported some deficiencies, concerns, and weaknesses which imply recommendations for the program. The deficiency was that the program had not made improvements based on program outcome assessment resulted from the newness of the program and has been corrected as shown in Table 2 attached. Concerns related to the newness of the program as well and are being addressed as we further develop the course structure for the capstone course. The ABET team identified a weakness related to the fact that we have very limited faculty resources for the size of our undergraduate programs, graduate programs, and research and service expectations.

Ø Summarize how previous program review results have been used to inform any of the following that apply: The refinement of mission and goals/objectives; program planning, development and improvement; and budgeting decisions.

This is the first program review under this policy.

8. State the vision and plans for the future of the department

Ø Provide a vision statement of where the department would like to be in five years; assuming only costs to continue, with no additional state resources

The CIS Department will certainly seek to maintain the ABET accreditation which we have worked so hard to achieve and to meet all of the requirements associated with AACSB academically/professionally qualified faculty. Intellectual contributions and service to the University, the community and the discipline will also be continued.

With existing resources, the CIS Department will expect to continue to provide two major options at the undergraduate level and an Information Systems concentration at the graduate level. Each year both programs will be reviewed for any needed changes to the structure or content of the program courses. In addition, we provide one core course at the graduate level (CIS 625) and a course that is included within the

undergraduate general education requirements of almost all programs University-wide (CIS 125). We are presently proposing the addition of a second undergraduate course to our service offerings which would be required of all CoB majors. To do this within existing resources will require significant attention to scheduling and likely will cause us to limit our offerings of sections of the three specialty courses in each to only once a year. This will require that faculty advise students very carefully and that students become

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Program Assessment

In addition to evaluation at the unit level, each department should identify expected outcomes for its educational programs. This process includes the assessment of each academic program to determine whether it achieves the stated outcomes, as well as documented evidence of improvement based on analysis of those results. Assessment may address other issues in addition to program review

9. Program Overview

Ø Brief overview of program

The Computer Information Systems major is composed of two major options: Enterprise Information Systems and End User Information Systems. The Enterprise Information Systems option emphasizes activities enabling students to work in organizations developing information systems, including networks, large web applications and database systems. The End User Information Systems option prepares students to provide day-to-day support in smaller information systems environments. The types of support include help desk, user training, and tech support for pcs and office-type applications and use of end-user applications to develop local (usually departmental and small organization) projects including databases, spreadsheets, web applications, desktop publishing applications, and local area networks. The market for CIS majors in our immediate area is largely for End User Computing majors, but students who are willing to relocate to larger markets find significant opportunities in both categories.

Ø Mission statement for the program: Reference its relationship to college and institutional mission, as well as state priorities where appropriate

The UNA mission of engaging in teaching, research, and service in order to provide educational opportunities for students, an environment for discovery and creative accomplishment, and a variety of outreach activities meeting the professional, civic, social, cultural, and economic development needs of our region in the context of a global community is closely related to the College of Business mission. The mission of the College of Business is to prepare students to become successful professionals capable of leading organizations in a diverse, dynamic global economy. The College emphasizes teaching excellence and provides a learning environment in which the College contributes to student development and to the business community through professional involvement and applied intellectual contributions.

Within this context, the mission for the CIS program is to prepare students to become successful information systems professionals capable of performing a variety of technical and leadership roles within information systems organizations in a diverse,

dynamic global economy. Like the College of Business, the CIS Department emphasizes

Table 9 shows graphically all prerequisites for all courses required of CIS majors, including general education courses and business core courses. The content of the courses required of all CIS students is developed based on the content prescribed by ABET in its curriculum standards.

∅ Associated institutes and centers

None

∅ Involvement of external constituents in establishing goals, objectives, learning outcome and curriculum

The CIS Department has established an Industry Advisory Board which will meet twice annually to review the goals, objectives, learning outcomes and curriculum and will serve as a sounding board for changes in each of these areas. In addition, faculty are constantly in contact with alumni and employers, including internship sponsors, to gain feedback in these areas. It is our goal to expand the use of the University's surveys of employers and alumni to more effectively gauge the opinions of these constituencies.

∅ Community college articulation where appropriate

The department has a working relationship with community colleges in the area, in addition to the articulation agreement through the State of Alabama. The department has provided a transfer version of our four year plan for undergraduates from Alabama Community Colleges and from Northeast Mississippi Community College, indicating the specific courses in their curriculum which will transfer into curriculum. These are difficult to keep updated, but seem to be much appreciated by parents of students who have a clear interest in the efficient transition from the community college to UNA CIS. These are also appreciated by the CIS advisors at the community colleges. (Table 7 and 8)

∅ Program productivity including number of majors and degrees conferred

The latest data in the tables below reflect data from the year that the new program was initiated, but students were graduating under provisions of the old program. The decline in majors in 2005-07 is, we believe a direct reflection of the fact that students knew that our program was in transition. Our preliminary headcount information shows that for 2007-08 the number of majors is back to around 200, which is our target enrollment. Changes in the admission requirement at the College level could have some impact, but it is premature to speculate concerning the magnitude of the impact. Graduation rates seem stable for the period.

**Number of Unduplicated Majors
(Summer, Fall, and Spring Semesters Combined)**

project was a real life project for a local business. The total score on the final project assessment rubric was 20 and the overall average for the students in the class was 17. Of the 10 students in this capstone class for all CIS majors, 3 (30 percent) successfully completed the project with a high level of performance and 1 (10 percent) scored below our “satisfactory” performance expectation of 16.

Based on these results, the primary problem area we identified is the percentage of individual students who are performing on a less than satisfactory level on these measures. While our preference would be to have no students in that category, realistically we would like the percentage to be below 10 percent on each measure. Two actions already in place should have an impact on this result in the future.

First, when our new program was initiated, we added a requirement that the pre-calculus algebra course be completed before any CIS major courses could be taken and that the Introduction to Programming and the Information Systems in Organizations course be completed before entering the advanced courses. These courses were significantly revised in Fall 2006, but we are still graduating a few students who are under old catalogs and did not have the advantage of these courses. Virtually all of those students are graduated at this time and further evaluations should show improvements based on these results.

Second, the College of Business has instituted admission requirements for all Business majors, including all CIS majors. This requirement goes into effect with the Fall semester 2008 entering freshman class. We believe this will also have a positive impact on appropriate placement of students who might be performing poorly because of inappropriate major selection.

Work still continues during the fall semester on the other direct measures related to the 2007-2008 assessment plan components. The CIS Industry Advisory Board will be asked to evaluate and score the projects from one class and give feedback concerning areas for improvement in both the content of the assignments and the student performance. When this is completed (we have set a working deadline of September 30, 2008), all of the material will be consolidated into one report, and reviewed by the entire departmental faculty for determination of additional actions.

- Ø Describe briefly the department’s continuous improvement plan utilized to assess and improve the program on an sr both thtodlinn ti25 Ori, Tc.0002 Tbriefly, and0ei0039 o r

- Ø Provide a brief analysis of the grade distribution patterns of courses and delineate an action plan for improvement where appropriate.

The table below shows the summary grade distribution for spring 2008. The most striking item within this distribution is the number of Ws (over 10% overall) in each category. The faculty will hold discussions to determine the cause of this and will seek to determine whether this indicates a problem needing correction. Other aspects of the grade distribution will also be evaluated during the next review cycle.

Spring 2008 Grade Summary								
Number of students by course category and letter grade								
	A	B	C	D	F	W	I	Total
CIS 125	149	63	39	12	29	40	1	333
Undergrad	88	81	26	1	3	19	0	218
Grad	133	62	6	0	1	20	0	222
Total	370	206	71	13	33	79	1	773

11. Program Recommendations

- Ø Identify recommendations for improvement of the program.

- a) Recommendations for changes, which are within the control of the program, including curricular changes if appropriate

None

- b) Recommendations for changes that require action at the Dean, Provost, or higher levels

A proposal will be submitted this month to change the prerequisite structure for CIS 236. This course currently is a co-requisite of CIS 225, but in the interest of better scheduling and meeting student needs we are developing a proposal which would require that CIS 236 have the same prerequisites as CIS 225, i.e., CIS 125 and MA 112 or any Area 3 math class. This will require action of the College of Business Administrative and Curriculum Committee and University Curriculum Committee.

TABLE 1

Program Outcome Assessment Cycle and Locus of Assessments (revised 1/20/2008)

Learning Outcomes

UNA CIS Program

TABLE 2

TABLE 3

Program Objectives: 5 years after graduation, Computer Information Systems graduates should be:	Measures			
Contributing to the economic development and society through the development and management of computer information systems for business and research.	Entry positions in field	Community involvement and service		
Advancing in their careers in organizations using computer information systems skills and understanding of business and contemporary technological issues.	Entry positions in field	Promotions		
Continuing their professional development through professional study and research.	Graduate school	Certifications and Awards	Training for specialization and new technologies	Professional society memberships
Exhibiting leadership in their chosen career.	Communication skills	Interpersonal skills	Teamwork skills	Management skills
Sources of Data	Assessment Schedule Details			
University Alumni Survey (Individual program data has previously not been included, but plans are underway to include this data).	Conducted by UNA Office of Research every 3 years	Next one scheduled for Fall 2007	Last one completed Fall 2004	Sample results included in supplemental materials
University Employer Survey (Individual program data has previously not been included, but plans are underway to include this data).	Conducted by UNA Office of Research every 3 years	Next one scheduled for Fall 2009	Last one completed Fall 2006	Sample results included in supplemental materials
Advisory Board Analysis of Survey Responses Advisory board: will be asked to help design new questions for both surveys. This is a new activity.	After tabulation of survey results above	First opportunity will be Fall 2010	Graduates from inaugural class will have graduated	Surveys will involve students who entered during the transition to the new program

TABLE 4
SUMMARY OF FACULTY QUALIFICATIONS and INTELLECTUAL CONTRIBUTIONS
Dept. of Computer Information Systems

Name	Highest Earned Degree & Year	Date of First Appointment to School	% of Time Dedicated to School's Mission	Acad Qual	Prof Qual	Other	Number of Contributions in last 5 years[1]						Normal Professional Responsibilities
							Learning & Pedagogical Scholarship		Discipline-Based Scholarship		Contributions to Practice		
							PRJ	OIC	PRJ	OIC	PRJ	OIC	
Alexander, Paulette	PhD 2001	Aug-81	100%	Yes				3		3		3	ADM, SER, RES, GR

TABLE 5

	Faculty Submitting Goals	Williams	Bailey	Davis	Alexander and Crabtree	Gossett	Williams	Bailey	Jiang, Parris and Parkhurst	Davis	Huang	Gossett	Parris	Huang	Bailey
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TABLE 6
CIS Department
Lead Faculty/Course
Coordinator
2008-2009

Lead Faculty	Undergraduate		Graduate
Alexander	376	EMB 406	EMB 506

TABLE 7

UNIVERSITY OF NORTH ALABAMA
College of Business
2008 - 2009

COMPUTER INFORMATION SYSTEMS MAJOR OPTIONS
Enterprise Information Systems or End User Computing Systems
Four Year Plan

	<i>First Semester</i>			<i>Second Semester</i>		
		Grade	Quality Points		Grade	Quality Points
FRESHMAN	EN 111 or EN 121	3 hrs.		EN 112 or EN 122	3 hrs.	
	MA 100 OR MA 112*	3 hrs.		MA 112 OR QM 295*	3 hrs.	
	<i>Natural Science w/lab**</i>	4 hrs.		<i>Natural Science w/lab**</i>	4 hrs.	
	HI 101 or HI 101-H or HI 201	3 hrs.		HI 102 or HI 102-H or HI 202	3 hrs.	

TABLE 8
UNIVERSITY OF NORTH ALABAMA
College of Business
2008 - 2009
COMPUTER INFORMATION SYSTEMS MAJOR OPTIONS
Enterprise Information Systems or End User Computing Systems
Alabama Community College Transfer Plan
(Community College Class Numbers Listed in Red)

	<i>First Semester</i>				<i>Second Semester</i>			
		Grade	Quality Points		Grade	Quality Points		
FRESHMAN	EN 111 (ENG 101) or EN 121	3 hrs.		EN 112 (ENG 102) or EN 122	3 hrs.			
	MA 100 OR MA 112* (MTH 112)	3 hrs.		MA 112 OR QM 295* (MTH 120 or MTH 125)	3 hrs.			
	Natural Science w/lab**	4 hrs.		Natural Science w/lab**	4 hrs.			
	HI 101 (HIS 101 or HIS 111 or HIS 121) or HI 101-H or HI 201 (HIS 201)	3 hrs.		HI 102 (HIS 102 or HIS 112 or HIS 122) or HI 102-H or HI 202 (HIS 202)	3 hrs.			
	Fine Arts Elective***	3 hrs.		CIS 125 (CIS 130 or 146)	3 hrs.			
	TOTAL	16 hrs.		TOTAL	16 hrs.			
SOPHOMORE	EN 231 (ENG 251 or ENG 261 or ENG 271 or ENG 273) or EN 233	3 hrs.		EN 232 (ENG 252 or ENG 262 or ENG 272 or ENG 274) or EN 234	3 hrs.			
	COM 201 (SPH 106 or SPH 107) or COM 210 (SPH 226)	3 hrs.		QM 292 (BUS 272)	3 hrs.			
	QM 291 (BUS 260 or 271)	3 hrs.		AC 292 (BUS 242)	3 hrs.			
	AC 291 (BUS 241)	3 hrs.		BL 240 (BUS 263)	3 hrs.			
	MG 330 (BUS 275)	3 hrs.		CIS 236	3 hrs.			
	CIS 225 (CIS 212)	3 hrs.		CAAP	0 hrs.			
	TOTAL	18 hrs.		TOTAL	15 hrs.			
JUNIOR	EC 251 (ECO 231)	3 hrs.		EC 252 (ECO 232)	3 hrs.			
	QM 295 (MTH 120 or MTH 125) OR General Elective*	3 hrs.		300/400 Level Elective	3 hrs.			
	MK 360 (BUS 285)	3 hrs.		MG 382W	3 hrs.			
	CIS 315 or CIS 350	3 hrs.		CIS 366	3 hrs.			
	CIS 330	3 hrs.		CIS 376	3 hrs.			
	General Elective	3 hrs.		Apply for Graduation				
	TOTAL	18 hrs.		TOTAL	15 hrs.			
SENIOR	FI 393	3 hrs.		MG 498	3 hrs.			
	MG 420	3 hrs.		300/400 Level Elective	3 hrs.			
	CIS 406	3 hrs.		Non-business Elective	3 hrs.			
	CIS 445 or CIS 446	3 hrs.		CIS 466 or CIS 456	3 hrs.			
	International Elective****	3 hrs.		CIS 486	3 hrs.			
	TOTAL	15 hrs.		TOTAL	15 hrs.			

*as appropriate, based on SAT or ACT score and high school course3 hrs. 3.736810.02 0 0 10.02 517.7999 398BITJ15-.0024103

TABLE 9
UNIVERSITY OF NORTH ALABAMA
College of Business
2008 - 2009 Draft
COMPUTER INFORMATION SYSTEMS MAJOR OPTIONS
Enterprise Information Systems or End User Computing Systems
Northeast Mississippi Community College Transfer Plan
(Community College Class Numbers Listed in Red)

	<i>First Semester</i>				<i>Second Semester</i>			
			Grade	Quality Points			Grade	Quality Points
FRESHMAN	EN 111 (ENG 1113) or EN 121	3 hrs.			EN 112 (ENG 1123) or EN 122	3 hrs.		
	MA 100 OR MA 112* (MAT 1313)	3 hrs.			MA 112 (MAT 1313) OR QM 295* (MAT 1513 or MAT 1613)	3 hrs.		
	Natural Science w/lab** HI 101 (HIS 1113) or HI 101-H or HI 201	4 hrs.			Natural Science w/lab**	4 hrs.		



