

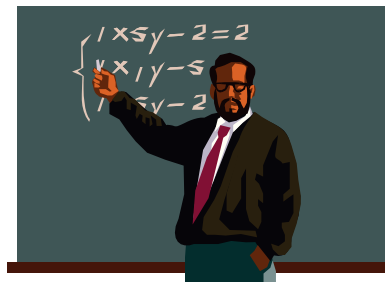
## Barrier Courses: A Closer Look at Semester Grade Frequency Reports

Beginning with their initial enrollment date in college, the length of time (time-to-degree) students take to earn a degree has become a major issue that has cost implications for students and colleges. An expanded cost for instruction has prompted many colleges to add financial penalties for students that have to repeat courses. In this examination, university grade frequency reports were reviewed to identify courses with high percentages of student failure.

If students are unsure of their career goals when they enter college, they may tend to experiment with different courses and majors. Obviously, the process of career exploration may add to the length of time it takes a student to earn a degree. As a result, many institutions have expanded to their curriculum, college orientation courses, to expose students to the various college majors and career opportunities. The goal is to get the student on track toward graduation in the shortest amount of time.

This research brief poses the question, "is there a connection between barrier courses and the time it takes students to graduate at FAMU?" In this review, barrier courses are defined as any course that

consistently reports a high percentage of unsatisfactory grades. To determine if barrier courses actually exist at Florida A&M University (FAMU), semester grade frequency reports were analyzed by grade frequencies for four consecutive semesters (excluding summers) fall 2004, spring 2005, fall 2005 and spring 2006. Those courses having a total percentage of fifty percent or more of awarded D's and/or F's were identified by the writer.



*"Teaching is what we do!"*

Research has documented high school grades, SAT/ACT scores, socio-economic status, ethnicity, and environmental factors as variables that influence student success in college.<sup>1</sup> Thus, it is imperative that institutions continually engage in research, data collection, and assessment to monitor the impact of these indicators of student success.

Imbedded within the context of environmental factors

are grade awards. Grade awards are significant outputs that represent student performance within the classroom. Students with grade averages of "C" or better are normally considered as successful and making progress towards graduation. Students with "D" and "F" grades, conversely, are considered as being unsuccessful and not making progress toward graduation.

Since most university majors require a minimum grade of "C" to earn academic credit toward graduation, it is reasonable to assume that a large number of unsatisfactory grade awards will have an adverse effect on an institution's retention and graduation rates because students will have to repeat failed courses. However, just as impacting might be the revelation that an institution has an extremely high percentage of students receiving above average grade awards, which may suggest a lack of academic rigor.

It is acknowledged that the process used for identifying barrier courses was subjective. Additionally, it is important to note that the section numbers of courses have been omitted to protect the rights of instructors.

<sup>1</sup> Camara, W. J. & Echternacht, G. (2000). The SAT I and high school grades: Utility in predicting success in college. Research Notes RN-10, The College Board.

Table 1.

**Top 20 University Undergraduate Courses that have Unsatisfactory Grades Awarded with an Enrollment of Over 25 Students for the Semesters: Fall 2004, Spring 2005, Fall 2005, & Spring 2006**

Semester	Top 20 Courses By Alpha <sup>1</sup>	Grade Distribution					Total. Enrollment	% Unsat. <sup>2</sup>
		A	B	C	D	F		
Fall 2004	CHM1045	3	0	3	15	68	89	93%
	CHM1045	0	1	4	9	62	76	93%
	BSC1005L	1	0	2	6	15	24	88%
	ENC1102	1	1	1	11	11	25	88%
	CHM1045	1	1	10	18	62	92	87%
	PSY2012	0	6	19	46	55	126	80%
	COT3100	0	2	3	5	14	24	79%
	COT3100	0	2	3	5	14	24	79%
	MAC2311	2	1	4	5	21	33	79%
	PSY2012	1	6	20	62	38	127	79%
	MAC1105	0	1	8	3	27	39	77%
	CHM1045	0	7	17	8	69	101	76%
	MAC2311	1	3	3	1	20	28	75%
	PSY2012	5	8	21	61	35	130	74%
	BSC1010L	1	3	4	2	18	28	71%
	MAC1105	0	2	10	6	22	40	70%
	CHM1031	0	4	21	30	26	81	69%
	MAC2311	3	3	5	8	16	35	69%
	BSC1005L	1	1	7	6	13	28	68%
	MAC1105	1	2	10	13	15	41	68%
Spring 2005	CHM1046	0	2	2	13	36	53	92%
	EGN1004L	0	0	5	8	12	25	80%
	CHM1045	2	6	16	16	72	112	79%
	CHM1045	4	7	12	19	65	107	79%
	MAC1105	1	1	5	19	8	34	79%
	COP1215	1	4	4	7	18	34	74%
	MAC1105	2	2	5	4	21	34	74%
	PSY2012	6	9	21	32	62	130	72%
	EEL3111	0	2	6	2	17	27	70%
	MAC2311	2	2	7	3	22	36	69%
	BSC1011	0	4	12	16	16	48	67%
	BSC1011	0	4	12	16	16	48	67%
	MAC1105	3	0	10	4	21	38	66%
	ENC1102	0	6	3	6	11	26	65%
	CCJ3610	1	6	6	8	15	36	64%
	ENC1102	0	7	2	10	6	25	64%
	ENC1102	0	7	2	10	6	25	64%
	ENC1102	0	7	2	10	6	25	64%
	PSY2012	1	12	34	27	58	132	64%
	MAC1105	2	2	8	7	14	33	64%
Fall 2005	CHM1045	3	0	3	15	68	89	93%
	CHM1045	0	1	4	9	62	76	93%
	ENC1102	1	1	1	11	11	25	88%
	MAC1114	1	1	3	5	28	38	87%
	BSC2093L	1	0	2	2	18	23	87%
	MAC1105	1	2	4	10	24	41	83%
	MAC1114	0	3	4	5	24	36	81%
	MAC2311	3	0	3	7	19	32	81%
	PSY2012	1	3	3	5	18	30	77%
	BSC1010	5	7	4	10	45	71	77%
	MAC1147	2	3	3	5	22	35	77%
	MAC1105	0	1	9	16	13	39	74%
	BSC1005L	0	0	7	8	11	26	73%
	MAN4720	0	2	7	11	13	33	73%
	BSC1005L	1	1	5	11	8	26	73%
	MAC1105	2	4	6	4	27	43	72%
	PHY2053	1	6	18	28	35	88	72%
	MGF1106	1	4	7	18	9	39	69%
	COT3100	1	2	7	4	16	30	67%
	PSY2012	5	11	11	17	34	78	65%

Table 1. continued...

Semester	Top 20 Courses By Alpha <sup>1</sup>	Grade Distribution					Total Enrollment	% Unsat. <sup>2</sup>
		A	B	C	D	F		
Spring 2006	CHM1045	0	4	7	12	84	107	90%
	CHM1046	0	0	1	6	25	32	97%
	MAC1105	1	1	5	6	21	34	79%
	MAC1105	2	1	5	8	18	34	76%
	MAC1114	0	0	2	16	10	28	93%
	MAC1105	1	3	4	19	9	36	78%
	MAC1105	2	2	5	3	21	33	73%
	MAC1105	0	3	3	9	16	31	81%
	MAC1114	0	0	2	19	6	27	93%
	MAC1114	0	0	2	19	6	27	93%
	MAC2311	0	1	4	8	16	29	83%
	BSC1010	4	7	8	13	41	73	74%
	ENC1102	2	3	1	10	7	23	74%
	MAC1147	1	1	3	3	18	26	81%
	ENC1101	0	0	9	10	6	25	64%
	ENC1102	0	3	5	7	9	24	67%
	ENC1102	0	3	5	11	5	24	67%
	MAC1105	4	2	3	7	16	32	72%
	MAC1105	2	4	5	3	20	34	68%
	MGF1106	0	2	10	8	15	35	66%

Notes: <sup>1</sup> = Individual course are listed by semester; section numbers are not included.

<sup>2</sup> = Unsatisfactory percentage includes both D and F grades.

Source: Student Data Course Files and Instruction & Research Data File, Florida Board of Governors, 2006

## Findings

Table 1 presents a list of the "Top 20 University Undergraduate Courses that have Unsatisfactory Grades Awarded with an Enrollment of Over 25 Students for the Semesters: Fall 2004, Spring 2005, Fall 2005, & Spring 2006." This information was taken from a comprehensive grade frequency report of all grades from university course offerings. The top 20 courses with unsatisfactory grades awarded were selected. The singular reason for using only the top 20 courses was because there were simply too many courses reporting over 50% unsatisfactory grades, which would have presented an issue for this publication.

The identified barrier courses in table 1 are CHM1045, ENC1102, MAC1105, and MAC2311. The common

elements among the four listed barrier courses are they all are lower level courses. This common element presents an additional concern because it leads to an assumption that many of the students failing these courses are first time college students. Therefore, it is incumbent upon the academic advisor of any first time college student to evaluate a student's level of academic preparation prior to making a recommendation for enrollment into a barrier course.

Several courses did not meet the listed criteria as a barrier course, but had very high unsatisfactory percentages. One course, PSY2012, was listed in three consecutive semesters. And seven courses, BSC1005L, BSC1010, COT3100, CHM1046, MAC1114, MAC1147, and MGF1106, were listed in two of the four selected semesters.

Interestingly, only two upper level courses, COT3100 and MAN4720, are presented in table 1.

## Conclusion

Every course a student repeats adds to his/her length of time to graduation and total degree cost. The fact that certain courses account for a large percentage of student recidivism suggests that more research is needed to identify and target the specific academic needs of students.

In the opinion of this writer, to impact and increase the success rate of students; university faculties, who are primarily responsible for instructional delivery, must be provided the level of support necessary to meet the academic needs of students.

*Coming Soon!*

To better accomplish its goals, the Office of Institutional Research has developed the Institutional Research Council (IRC).

## **Institutional Research Council (IRC)**

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To be effective, given the magnitude of issues impacting the university, it is imperative that the educational leader utilize the collective intelligence within its community of scholars to maximize the probability for success. Therefore, as the director for institutional research, I have proposed to establish an Institutional Research Council (IRC).

The purpose of the Institutional Research Council (IRC) is to serve as an advisory council for the director for institutional research at Florida A&M University. To this end, the council shall include assisting with the development of an institutional research agenda, recommending innovative research methods and use of technology, promoting effective data collection strategies, and collaborating with research projects, which will enhance the ability of the university to make data driven decisions and to realize its potential for distinction in research, creative, and scholarly activities. Representatives from each college, student affairs, student government, and FAMU DRS will comprise the membership of the IRC. The vice president for research, dean of graduate studies, and the director for libraries shall function as ex officio members of the council.

The selected criteria for IRC representatives include: (1) full-time employment at FAMU with a bachelor's degree (a master's degree is preferred) and experience in the areas of university teaching/advisement, data analysis, writing and editorial skills, or grant-writing skills; and, (2) full-time student (SGA Representative).

