

Research Briefs

SUCCESSFUL COURSE COMPLETION IN BACHELOR PROGRAMS

By analyzing grades, this study examines successful course completion in Bachelor of Applied Science (B.A.S.) and Bachelor of Applied Technology (B.A.T.) programs at South Texas College (STC) in Fall 2016 semester. Three class characteristics are used in this report: class type, class size, and class level.

It is found that students generally perform better in hybrid classes (combination of face-to-face and online instruction). In addition, students in 4000-level classes perform better than those in 3000-level classes. Third, students are more likely to succeed in smaller classes. However, there are some variations among different programs.

METHODOLOGY

This quantitative analysis compares the pass rates of South Texas College students who enrolled in B.A.S. and B.A.T. courses during the Fall 2016 semester ($n=1,958$ grades analyzed). The measurement of success rates is based on the percentage of students who get C or higher in each class.

Three class characteristics were studied for four majors in B.A.S. and B.A.T. programs (Computer and Information Technology, Technology Management, Medical/Health Service Management, and Organizational Leadership). The three class characteristics are class type, class level, and class size. Class level includes two categories: 3000-level and 4000-level. Class type includes three categories: face-to-face, online, and hybrid. Class size includes four categories: equal or smaller than 10, larger than 10 but equal or smaller than 20, larger than 20 but equal or smaller than 30, and equal or larger than 31.

An initial analysis examines the success rates for each major and class characteristic separately, and a further analysis looks into how success rates are affected by class characteristics for each major.

COURSE SUCCESS RATES BY PROGRAM

Combined, the overall success rate for four programs is 83.9% (Table 1). The success rate for Organizational Leadership is the highest (89.1%), followed by Medical/Health Service Management (84.7%), Technology Management (82.3%), and Computer and Information Technology (71.5%).

Hybrid classes have the highest average success rate (89.8%), followed by face-to-face classes (85.8%) and online classes (82.3%).

Students in 4000-level classes are more likely to succeed (86.3%), compared to their counterparts in 3000-level classes (82.4%).

In general, the smallest classes (class size ≤ 10) perform best in terms of success rates (88.6%) though there is no significant difference among other sizes (the success rates are all about 83%).

CLASS TYPE, LEVEL AND SIZE

Class Type (Table 2): Among four majors:

- 1) In Computer and Information Technology, face-to-face classes have highest pass rates.
- 2) In Technology Management, face-to-face classes have highest pass rates.
- 3) In Medical/Health Service Management, face-to-face classes and online classes have higher pass rates than hybrid classes.
- 4) In Organizational Leadership, hybrid classes have highest pass rates.

Class Level (Table 3): Among four majors:

- 1) In Computer and Information Technology, 3000-level classes have higher pass rates.
- 2) In Technology Management, 4000-level classes have higher pass rates.
- 3) In Medical/Health Service Management, 3000-level classes and 4000-level classes have similar pass rates.
- 4) In Organizational Leadership, 4000-level classes have higher pass rates.

Class Size (Table 4): Among four majors:

- 1) In Computer and Information Technology, smaller classes have higher pass rates.
- 2) In Technology Management, bigger classes have higher pass rates.
- 3) In Medical/Health Service Management, the biggest classes and the smallest classes have higher pass rates.
- 4) In Organizational Leadership, smaller classes have higher pass rates.

Table 1. Course Success Rates in Bachelor Programs

Programs	# Section	# Grades	Success Rates
CITP	19	316	71.5%
TMGT	27	485	82.3%
MHSM	19	313	84.7%
ORGL	47	844	89.1%
Total	112	1958	83.9%
Class Type			Success Rates
Face to Face	18	183	85.8%
Online	69	1451	82.3%
Hybrid	25	324	89.8%
Class Level			Success Rates
3000	56	1235	82.4%
4000	56	723	86.3%
Class Size			Success Rates
≤10	27	175	88.6%
11-20	46	735	83.8%
21-30	33	851	83.1%
≥31	6	197	83.3%

Table 2. Course Success Rates by Class Type and Program

Programs	Class Type	# Section	# Grades	Success Rates
CITP	Face to Face	2	10	100%
	Online	12	233	67.8%
	Hybrid	5	73	79.5%
TMGT	Face to Face	7	54	85.2%
	Online	20	431	81.9%
	Hybrid	0	0	N/A
MHSM	Face to Face	5	47	85.1%
	Online	11	234	85.0%
	Hybrid	3	32	81.3%
ORGL	Face to Face	4	72	84.7%
	Online	26	553	87.5%
	Hybrid	17	219	94.5%

Table 3. Course Success Rates by Class Level and Program

Programs	Class Level	# Section	# Grades	Success Rates
CITP	3000	12	214	72.9%
	4000	7	102	68.6%
TMGT	3000	9	343	81.3%
	4000	18	142	84.5%
MHSM	3000	11	200	84.5%
	4000	8	113	85.0%
ORGL	3000	24	478	86.6%
	4000	23	366	92.4%

Table 4. Course Success Rates by Class Size and Program

Programs	Class Size	# Section	# Grades	Success Rates
CITP	≤10	3	19	94.7%
	11-20	12	183	71.0%
	21-30	4	114	68.4%
	≥31	0	0	N/A
TMGT	≤10	9	36	72.2%
	11-20	4	64	82.8%
	21-30	12	319	82.8%
	≥31	2	66	84.9%
MHSM	≤10	7	56	89.3%
	11-20	6	95	79.0%
	21-30	4	96	83.3%
	≥31	2	66	90.9%
ORGL	≤10	8	64	95.3%
	11-20	24	393	91.3%
	21-30	13	322	88.5%
	≥31	2	65	73.9%