



University of Dayton

Extrinsic Factors of Academic Probation Attrition in the School of Engineering

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Research Questions

What intrinsic and extrinsic factors correlate to attrition from academic probation in the School of Engineering at the University of Dayton? Does advisor, professor, course, and/or residency correlate to attrition from academic probation?

Methodology

The call for increased graduation rates in science, technology, engineering, and math (STEM) fields has led to an increase in focus on students on academic probation. This study used previously collected data from the University of Dayton. A binary logistical regression statistical test was used to identify significance between attrition and the extrinsic factors. There were 49 students in the study, none of them first-year students.

References

McGrath, S. M., & Burd, G. D. (2012). A success course for freshmen on academic probation: persistence and graduation outcomes. *NACADA Journal*, 32(1), 43-52.
University of Dayton. (2019, March 8). *UDI 055: Becoming a Mindful Learner*. Retrieved from University of Dayton: <https://udayton.edu/ltc/learningresources/learningandstudy/courses/udi055/index.php>

Extrinsic Factors Count and Significance Table

Characteristics	Attrited	Retained	Sig.
Advisor (30 Unlisted)			
Advisor Q	3	2	1
Professor (130 Unlisted)			
Professor A	2	3	0.656
Professor B	2	3	0.671
Professor C	0	5	0.999
Professor D	3	2	0.728
Professor E	3	3	0.231
Professor F	6	2	0.355
Professor G	3	2	0.999
Courses (117 Unlisted)			
CME408	3	2	0.847
CME430	3	2	0.673
CME465	3	2	0.673
CME466L	3	2	0.673
CPS150	2	2	0.999
EGR102	3	3	0.479
EGR200	2	3	0.834
EGR202	1	4	0.427
MEE104L	2	4	0.964
MTH169	1	5	0.296
MTH218	3	1	0.999
SSC200	3	2	0.764
UDI055	3	10	0.047*
Residency			
On Campus	7	5	0.561
Off Campus	18	19	0.869
Non-Study Factors (3 Unlisted)			
Male	22	22	-
Female	3	2	0.906
International	15	14	0.832
Domestic	10	10	-
Fall Academic Probation	21	14	-
Fall Readmitted Probation	4	10	0.056

*p < 0.05 **p < 0.005

Discussion

Out of the four extrinsic factors that were looked at, there was only one course that has statistical significance. UDI055, $p = 0.047$, "Becoming a Mindful Learner," is a course designed to "give students the opportunity to increase their capacity to become mindful learners" (University of Dayton, 2019). As previous research has supported, specifically designed courses for students on academic probation often lead to attrition (McGrath & Burd, 2012). In conclusion, extrinsic factors do not appear to have a strong significant correlation to attrition from academic probation.

Recommendations

For further research, a larger sample be drawn, focus on spring semester to capture first-year students, and a mixed-methods approach to hear from students are recommended. For further practice, it is recommended that universities create academic probation courses.