



## Institutional Effectiveness, Research, & Planning

### PRE-REQUISITE VALIDATION: HUMANITIES AND SOCIAL SCIENCES DIVISION

**March 2017**

This report is a statistical validation of the prerequisite (PR) courses in the Health Occupations division which have been implemented and in place for a period of time. There are two main objectives of this validation study: One, is to assess whether student success rates in the target course increase with the implementation of the prerequisite; Two, is to assess the extent to which course enrollment and success varies by student demographics. The latter objective addresses disproportionate impact.

The following prerequisite will be examined in terms of success in this target course:

<b>Target Course</b>	<b>Prerequisite</b>	<b>Term Implemented</b>
ANTH 100 - Cultural Anthropology	ENGL 52 - Introduction to College Composition READ 54 – Advanced College Reading	Summer 2010
ANTH 120 - Introduction to Archeology	ENGL 100 - Freshman Composition	Fall 2010
HIST 101 - American History and Constitution	ENGL 72 - Introduction to College Writing and Reasoning ESL 152 - Introduction to College Composition for Non-Native English Speakers	Fall 2010
HIST 102 - Political and Social History of the United States 1500 to 1876	ENGL 72 - Introduction to College Writing and Reasoning ESL 152 - Introduction to College Composition for Non-Native English Speakers	Summer 2010
HIST 103 - Political and Social History of the United States 1877 to Present	ENGL 72 - Introduction to College Writing and Reasoning ESL 152 - Introduction to College Composition for Non-Native English Speakers	Summer 2010
HIST 241- Western Civilization	ENGL 72 - Introduction to College Writing and Reasoning ESL 152 - Introduction to College Composition for Non-Native English Speakers	Fall 2010
PHIL 100 - Introduction to Philosophy	ENGL 72 - Introduction to College Writing and Reasoning	Summer 2010

	ESL 152 - Introduction to College Composition for Non-Native English Speakers	
PHIL 102 - Introduction to Ethics	ENGL 72 - Introduction to College Writing and Reasoning ESL 152 - Introduction to College Composition for Non-Native English Speakers	Summer 2010
PHIL 104 - Philosophy of Cultural Diversity: Challenge and Change	ENGL 72 - Introduction to College Writing and Reasoning ESL 152 - Introduction to College Composition for Non-Native English Speakers	Summer 2010
PHIL 105 - Philosophy of Art and Beauty	ENGL 72 - Introduction to College Writing and Reasoning ESL 152 - Introduction to College Composition for Non-Native English Speakers	Fall 2010
PHIL 107 - Philosophy of Science and Technology	ENGL 72 - Introduction to College Writing and Reasoning ESL 152 - Introduction to College Composition for Non-Native English Speakers	Fall 2011
PHIL 108 - Philosophy of the Americans	ENGL 72 - Introduction to College Writing and Reasoning ESL 152 - Introduction to College Composition for Non-Native English Speakers	Spring 2011
PHIL 109 - Philosophy of the Body, Feminism and Gender	ENGL 52 - Introduction to College Composition ENGL 72 - Introduction to College Writing and Reasoning ENGL 100 - Freshman Composition ESL 152 - Introduction to College Composition for Non-Native English Speakers	Spring 2013
PHIL 130 - History of Ancient Philosophy	ENGL 72 - Introduction to College Writing and Reasoning ESL 152 - Introduction to College Composition for Non-Native English Speakers	Fall 2014
PHIL 140 – History of Modern Philosophy	ENGL 72 - Introduction to College Writing and Reasoning ESL 152 - Introduction to College Composition for Non-Native English Speakers	Spring 2015
PHIL 160 – Symbolic Logic	ENGL 72 - Introduction to College Writing and Reasoning	Spring 2015

	ESL 152 - Introduction to College Composition for Non-Native English Speakers	
PHIL 201 – Contemporary Philosophy	ENGL 72 - Introduction to College Writing and Reasoning ESL 152 - Introduction to College Composition for Non-Native English Speakers	Spring 2011
PHIL 203 – Philosophy of Religion	ENGL 72 - Introduction to College Writing and Reasoning ESL 152 - Introduction to College Composition for Non-Native English Speakers	Fall 2013
PHIL 204 – Philosophy of the Bible I (Hebrew Scriptures)	ENGL 72 - Introduction to College Writing and Reasoning ESL 152 - Introduction to College Composition for Non-Native English Speakers	Fall 2010
PHIL 205 – Introduction to Bioethics	ENGL 72 - Introduction to College Writing and Reasoning ESL 152 - Introduction to College Composition for Non-Native English Speakers	Spring 2014
PHIL 206 - Philosophy of the Bible II (Christian Scriptures)	ENGL 72 - Introduction to College Writing and Reasoning ESL 152 - Introduction to College Composition for Non-Native English Speakers	Spring 2011
PSYC 101 - General Introductory Psychology	ENGL 52 – Introduction to College Composition READ 54 – Advanced College Reading ENGL 72 - Introduction to College Writing and Reasoning ESL 152 - Introduction to College Composition for Non-Native English Speakers	Summer 2010
PSYC 241 - Introduction to Psychobiology	READ 54 – Advanced College Reading	Summer 2010
PSYC 273 - Mental Health Worker Field Experience	INST 151 - Recovery and Rehabilitation INST 152 - Helping Relationships PSYC 101 - General Introductory Psychology PSYC 271 - Abnormal Psychology	Fall 2010

## **Executive Summary**

- There was no significant difference ( $p = .22$ ) in outcomes of students who successfully completed the PR (68%) and students who did not successfully complete the PR (70%) prior to taking ANTH 100.
- In ANTH 100, disproportionate impact exists by gender – the female population
- There was a significant difference ( $p = .001$ ) in outcomes of students who successfully completed the PR (79%) and students who did not successfully complete the PR (63%) prior to taking ANTH 120.
- The success rate for students who did not successfully complete the prerequisite prior to taking HIST 101 was 67%.
- There was no significant difference ( $p = .08$ ) in outcomes of students who successfully completed the PR (60%) and students who did not successfully complete the PR (67%) prior to taking HIST 102.
- There was no significant difference ( $p = .90$ ) in outcomes of students who successfully completed the PR (67%) and students who did not successfully complete the PR (74%) prior to taking HIST 103.
- The success rate for students who did not successfully complete the prerequisite prior to taking HIST 241 was 74%.
- There was no significant difference ( $p = .12$ ) in outcomes of students who successfully completed the PR (67%) and students who did not successfully complete the PR (75%) prior to taking PHIL 100.
- There was no significant difference ( $p = .83$ ) in outcomes of students who successfully completed the PR (90%) and students who did not successfully complete the PR (85%) prior to taking PHIL 102.
- There was no significant difference ( $p = .18$ ) in outcomes of students who successfully completed the PR (57%) and students who did not successfully complete the PR (78%) prior to taking PHIL 104.
- The success rate for students who did not successfully complete the prerequisite prior to taking PHIL 105 was 68%.
- The success rate for students who did not successfully complete the prerequisite prior to taking PHIL 107 was 64%.
- The success rate for students who did not successfully complete the prerequisite prior to taking PHIL 108 was 44%.
- There was no significant difference ( $p = .73$ ) in outcomes of students who successfully completed the PR (45%) and students who did not successfully complete the PR (41%) prior to taking PHIL 109.
- There was no significant difference ( $p = .20$ ) in outcomes of students who successfully completed the PR (56%) and students who did not successfully complete the PR (75%) prior to taking PHIL 130.

- There was no significant difference ( $p = .70$ ) in outcomes of students who successfully completed the PR (85%) and students who did not successfully complete the PR (89%) prior to taking PHIL 140.
- In PHIL 140, disproportionate impact exists by Age – the 19 or younger population.
- There was no significant difference ( $p = .77$ ) in outcomes of students who successfully completed the PR (63%) and students who did not successfully complete the PR (56%) prior to taking PHIL 160.
- The success rate for students who did not successfully complete the prerequisite prior to taking PHIL 201 was 84%.
- There was no significant difference ( $p = .65$ ) in outcomes of students who successfully completed the PR (85%) and students who did not successfully complete the PR (83%) prior to taking PHIL 203.
- The success rate for students who did not successfully complete the prerequisite prior to taking PHIL 204 was 87%.
- There was no significant difference ( $p = .68$ ) in outcomes of students who successfully completed the PR (54%) and students who did not successfully complete the PR (60%) prior to taking PHIL 205.
- There was no significant difference ( $p = .634$ ) in outcomes of students who successfully completed the PR (100%) and students who did not successfully complete the PR (83%) prior to taking PHIL 206.
- There was no significant difference ( $p = .60$ ) in outcomes of students who successfully completed the PR (70%) and students who did not successfully complete the PR (70%) prior to taking PSYC 101.
- In PSYC 101, disproportionate impact exists by age group, ethnicity, and gender.
- The success rate for students who did not successfully complete the prerequisite prior to taking PSYC 241 was 78%.
- There was no significant difference ( $p = .36$ ) in outcomes of students who successfully completed the PR (89%) and students who did not successfully complete the PR (83%) prior to taking PSYC 273.

## **Details of the Data and/or Analysis**

Reporting template has been adapted from the Research and Planning Group for California Community Colleges, October 2013.

### ***Sample***

#### ANTH 100

Nine thousand four hundred forty-eight students (n=9448) made their first attempt in ANTH 100 and earned a grade on record during Summer 2010 to Spring 2016. Of those, 6558 (69%) students were successful. Students must successfully complete the PR prior to taking ANTH 100. Among the total 9448 students in the sample, 2102 (22%) of them met the prerequisite.

#### ANTH 120

Three hundred twenty-eight students (n=328) made their first attempt in ANTH 120 and earned a grade on record during Fall 2010 to Spring 2016. Of those, 234 (71%) students were successful. Students must successfully complete the PR prior to taking ANTH 120. Among the total 328 students in the sample, 170 (52 %) of them met the prerequisite.

#### HIST 101

Two thousand nine hundred sixty students (n=2960) made their first attempt in HIST 101 and earned a grade on record during Fall 2010 to Fall 2015 (Spring and Fall semesters only). Of those, 1895 (64%) students were successful. Students must successfully complete the PR prior to taking HIST 101. Among the total 2960 students in the sample, 10 (0%) of them met the prerequisite.

#### HIST 102

Six thousand six hundred fifty-seven students (n=6657) made their first attempt in HIST 102 and earned a grade on record during Summer 2010 to Spring 2016. Of those, 4467 (67%) students were successful. Students must successfully complete the PR prior to taking HIST 102. Among the total 6657 students in the sample, 110 (2%) of them met the prerequisite.

#### HIST 103

Six thousand seven hundred ninety-five students (n=6795) made their first attempt in HIST 103 and earned a grade on record during Summer 2010 to Spring 2016. Of those, 5027 (74%) students were successful. Students must successfully complete the PR prior to taking HIST 103. Among the total 6795 students in the sample, 101 (2%) of them met the prerequisite.

#### HIST 241

Two hundred ninety-seven students (n=297) made their first attempt in HIST 241 and earned a grade on record during Fall 2010 to Fall 2015 (Fall semesters only). Of those, 219 (74%) students were successful. Students must successfully complete the PR prior to taking HIST 241. However, no students took or met the prerequisite.

#### PHIL 100

Four thousand five hundred forty-eight students (n=4548) made their first attempt in PHIL 100 and earned a grade on record during Summer 2010 to Spring 2016. Of those, 3405 (75%) students were successful. Students must successfully complete the PR prior to taking PHIL 100. Among the total 4548 students in the sample, 61 (1%) of them met the prerequisite.

#### PHIL 102

One thousand six hundred sixty-seven students (n=1667) made their first attempt in PHIL 102 and earned a grade on record during Summer 2010 to Spring 2016. Of those, 1411 (85%) students were successful. Students must successfully complete the PR prior to taking PHIL 102. Among the total 1667 students in the sample, 10 (1%) of them met the prerequisite.

#### PHIL 104

One thousand one hundred twenty-six students (n=1126) made their first attempt in PHIL 104 and earned a grade on record during Summer 2010 to Spring 2016 (Spring and Fall semesters only with the exception of Summer 2010). Of those, 880 (78%) students were successful. Students must successfully complete the PR prior to taking PHIL 104. Among the total 1126 students in the sample, 14 (1%) of them met the prerequisite.

#### PHIL 105

Eighty-one students (n=81) made their first attempt in PHIL 105 and earned a grade on record during Fall 2010 and Spring 2012. Of those, 55 (68%) students were successful. Students must successfully complete the PR prior to taking PHIL 105. However, no students took or met the prerequisite.

#### PHIL 107

Thirty-three students (n=33) made their first attempt in PHIL 107 and earned a grade on record during Fall 2011. Of those, 21 (64%) students were successful. Students must successfully complete the PR prior to taking PHIL 107. However, no students took or met the prerequisite.

#### PHIL 108

Thirty-nine students (n=39) made their first attempt in PHIL 108 and earned a grade on record during Spring 2011. Of those, 21 (44%) students were successful. Students must successfully complete the PR prior to taking PHIL 108. However, no students took or met the prerequisite.

#### PHIL 109

Sixty-six students (n=66) made their first attempt in PHIL 109 and earned a grade on record during Spring 2013. Of those, 28 (42%) students were successful. Students must successfully complete the PR prior to taking PHIL 109. Among the total 66 students in the sample, 22 (33%) of them met the prerequisite.

#### PHIL 130

Forty-four students (n=44) made their first attempt in PHIL 130 and earned a grade on record during Fall 2014 and Fall 2015. Of those, 30 (68%) students were successful. Students must successfully complete the PR prior to taking PHIL 130. Among the total 44 students in the sample, 16 (36%) of them met the prerequisite.

#### PHIL 140

Forty students (n=40) made their first attempt in PHIL 140 and earned a grade on record during Spring 2015. Of those, 35 (88%) students were successful. Students must successfully complete the PR prior to taking PHIL 140. Among the total 40 students in the sample, 13 (33%) of them met the prerequisite.

#### PHIL 160

Seventeen students (n=17) made their first attempt in PHIL 160 and earned a grade on record during Spring 2015. Of those, 10 (59%) students were successful. Students must successfully complete the PR prior to taking PHIL 160. Among the total 17 students in the sample, 8 (47%) of them met the prerequisite.

#### PHIL 201

One hundred seventy-four students (n=174) made their first attempt in PHIL 201 and earned a grade on record during Spring 2011 and Spring 2016 (Spring semesters only). Of those, 148 (84%) students were successful. Students must successfully complete the PR prior to taking PHIL 201. However, no students took or met the prerequisite.

#### PHIL 203

Two hundred sixteen (n=216) made their first attempt in PHIL 203 and earned a grade on record during Fall 2013 and Fall 2015 (Fall semesters only). Of those, 180 (83%) students were successful. Students must successfully complete the PR prior to taking PHIL 203. Among the total 216 students in the sample, 57 (26%) of them met the prerequisite.

#### PHIL 204

One hundred sixty-three students (n=163) made their first attempt in PHIL 204 and earned a grade on record during Fall 2010, 2011, 2012, and 2014. Of those, 142 (87%) students were successful. Students must successfully complete the PR prior to taking PHIL 204. However, no students took or met the prerequisite.

#### PHIL 205

Seventy-eight students (n=78) made their first attempt in PHIL 205 and earned a grade on record during Spring 2014. Of those, 46 (59%) students were successful. Students must successfully complete the PR prior to taking PHIL 205. Among the total 78 students in the sample, 7 (9%) of them met the prerequisite.

#### PHIL 206



Two hundred nineteen students (n=219) made their first attempt in PHIL 206 and earned a grade on record during Spring 2011 to Spring 2016 (Spring semester only). Of those, 182 (83%) students were successful. Students must successfully complete the PR prior to taking PHIL 206. Among the total 219 students in the sample, 5 (2%) of them met the prerequisite.

#### PSYC 101

Fourteen thousand seven hundred sixty-two students (n=14,762) made their first attempt in PSYC 101 and earned a grade on record during Summer 2010 to Spring 2016. Of those, 10239 (69%) students were successful. Students must successfully complete the PR prior to taking PSYC 101. Among the total 14,762 students in the sample, 4394 (30%) of them met the prerequisite.

#### PSYC 241

Three thousand four hundred twelve students (n=3412) made their first attempt in PSYC 241 and earned a grade on record during Summer 2010 to Spring 2016. Of those, 2667 (78%) students were successful. Students must successfully complete the PR prior to taking PSYC 241. Among the total 3,412 students in the sample, 53 (2%) of them met the prerequisite.

#### PSYC 273

One hundred forty-five students (n=145) made their first attempt in PSYC 273 and earned a grade on record during Fall 2010 to Spring 2016. Of those, 128 (88%) students were successful. Students must successfully complete the PR prior to taking PSYC 273. Among the total 145 students in the sample, 122 (84%) of them met the prerequisite.

### ***Methodology***

Student data was used to initially identify all students who earned a grade on record (A, B, C, D, F, FW, NP, P or W) in the target course. While a student may have taken the target course multiple times, for purposes of prerequisite validation, only the first attempt in the target course was examined. Further coding was created to identify students who were successful (earned an A, B, C, or P grade) or unsuccessful (earned a grade of D, F, FW, NP, or W) in the target course. Successful grades were divided by total grades earned on record to compute success rate.

Once this step was completed, course outcomes for students who successfully completed the prerequisite course prior to completing target course were merged into the target course file. For prerequisite courses, the best attempt (i.e., the highest grade earned in the prerequisite course) was identified and merged into the target file. Using the aforementioned definitions, a student was identified as having met the prerequisite if he/she earned a successful grade on record in the prerequisite course. Conversely, students who did not meet the prerequisite were identified as students who: a) did not take the prerequisite course; b) the highest grade earned on record in the prerequisite courses was a non-successful grade.

Once the target course outcome of prerequisite completers and non-completers was identified, independent samples of the t-test and chi-square test were conducted to determine whether statistically significant differences in target course outcome existed between prerequisite completers and non-completers. This study will examine the overall success rates and grades in the target course, the success rates and grades of students who met the prerequisites, the success rates of students who did not meet the prerequisites, the percentage of students in the target courses who met the prerequisite, and whether the success rates of completers/non-completers were identified as statistically significantly different ( $p < .05$ ).

# ANTH 100 – Cultural Anthropology

Two measures were examined between prerequisite completers and non-completers:

1. Course Grade Averages in ANTH 100
2. Success rate in ANTH 100

Following is the summary of the results.

## Course Grade Averages in ANTH 100

**Table 1. Grades in ANTH 100**

	Successful Completion of PR	Did Not Successfully Complete PR
A	321	1713
B	547	1763
C	567	1645
D	160	462
F	245	875
NP	-	2
P	1	3
W	261	883
<b>Total</b>	<b>2102</b>	<b>7346</b>
<b>Course Grade Average</b>	<b>2.33</b>	<b>2.33</b>
<b>T-Value</b>	<b>.053</b>	
<b>Sig (P-Value)</b>	<b>.535</b>	
<b>Cohen's <i>d</i></b>	<b>0</b>	

To determine if student's course grade average in ANTH 100 is significantly different by the two groups, a t-test of independent groups was performed. Data indicates that students who successfully completed a PR had equivalent course grade average in ANTH 100 as those who did not complete the PR ( $p = 0.535$ ). The effect size was zero (0) indicating a low practical impact on success if students successfully completed a prerequisite prior to enrolling in ANTH 100.

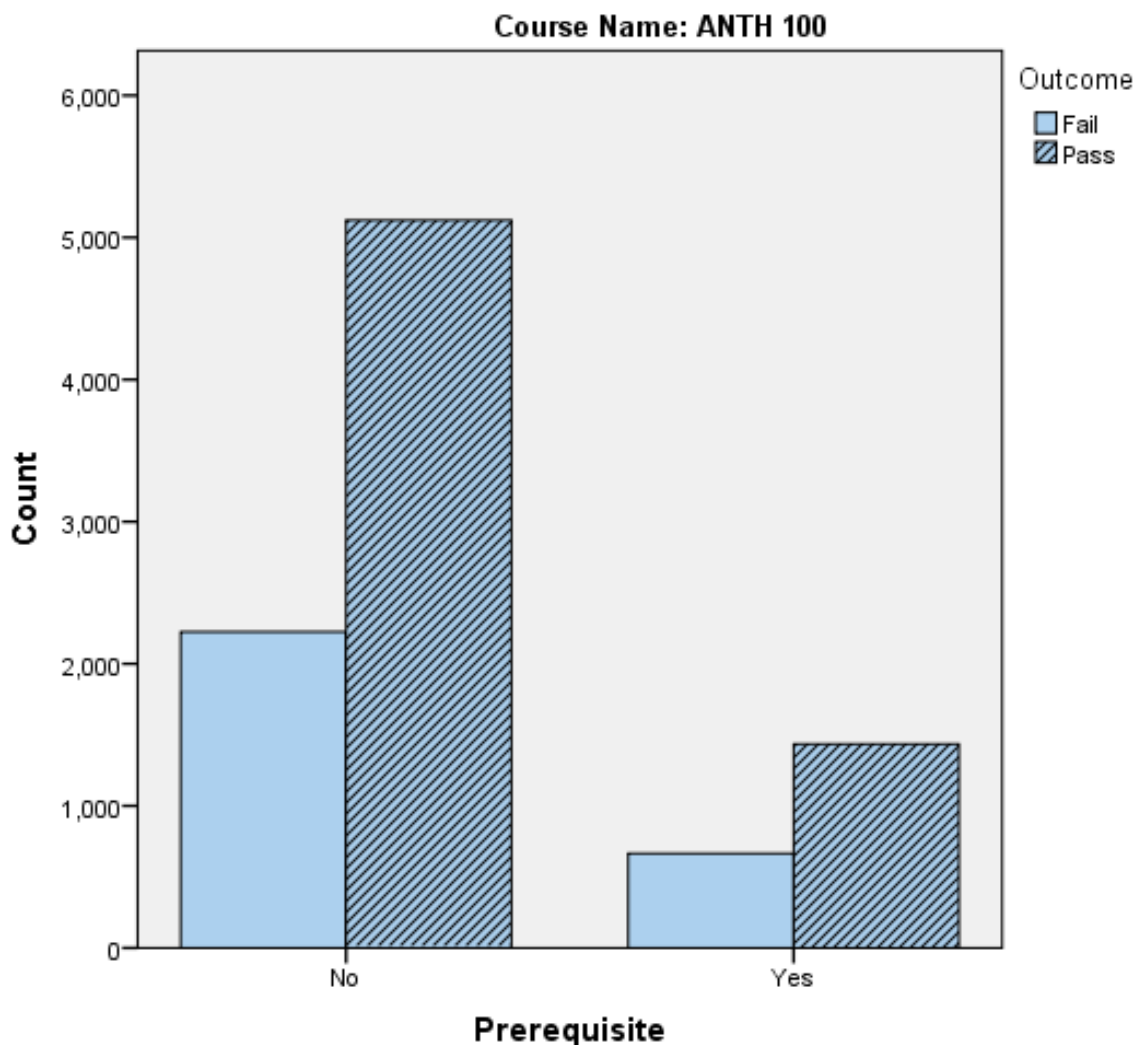
**Table 2. Success Rate in ANTH 100**

	Completed PR		Total
	Yes	No	
<b>Pass</b>	1436	5122	6558
<b>Fail</b>	666	2224	2890
	2102	7346	9448
<b>Success Rate</b>	68%	70%	69%

*Chi-Square = 1.528, df = 1, p = .22*

To determine if student's success rate in ANTH 100 is significantly different by the two groups, a chi-square test was performed. Data shows that students who successfully completed the PR had a slightly lower success rate (68%) in ANTH 100 than students who did not successfully complete the PR (70%). However, results were not statistically significant ( $p = .22$ ).

**Figure 1**



### Disproportionate Impact Analysis

To examine whether a disproportionate impact existed, data were generated for prerequisite course/target course combination. The last column in the following tables ("Disproportionate Impact") identify whether a disproportionate impact was observed ("Yes" if disproportionate impact was observed).

**Table 3. Disproportionate Impact by Age Group**

Age	Completed PR		Total	% of Completed PR	Disproportionate Impact
	Yes	No			
19 or Younger	593	1776	2369	25%	No
20-24	709	2484	3193	22%	No
25-29	86	514	600	14%	No
30-34	22	184	206	11%	No
35-39	11	71	82	13%	No
40-49	12	66	78	15%	No
50+	3	27	30	10%	No
Total	1436	5121	6557		

*Chi-square=2.822, df=1, p=.09 (not significant at p<.05)*

**Table 4. Disproportionate Impact by Ethnicity**

Ethnicity	Completed PR		Total	% of Completed PR	Disproportionate Impact
	Yes	No			
African American/Black	45	189	234	19%	No
American Indian/Alaskan Native	23	77	100	23%	No
Asian	173	685	831	25%	No
Hispanic/Latino	868	2879	3747	23%	No
Native Hawaiian/Pacific Islander	3	15	18	17%	No
Two or More	172	524	696	25%	No
Unknown/No Response	111	515	626	18%	No
White	41	265	306	13%	No
Total	1436	5121	6557		

*Chi-square=2.179, df=1, p=.14 (not significant at p<.05)*

**Table 5. Disproportionate Impact by DSPTS**

Disability	Completed PR		Total	% of Completed PR	Disproportionate Impact
	Yes	No			
Yes	30	122	152	20%	No
No	1406	4998	6404	22%	No
Unknown	-	2	2	-	-
Total	1436	5121	6557		

*Chi-square=1.585, df=1, p=.21 (not significant at p<.05)*

**Table 6. Disproportionate Impact by Gender**

Gender	Completed PR		Total	% of Completed PR	Disproportionate Impact
	Yes	No			
Male	606	2189	2795	22%	No
Female	805	2844	3649	22%	Yes
Unknown	25	89	114	22%	No
Total	1436	5121	6557		

*Chi-square=6.743, df=1, p=.01 (significant at  $p<.05$ )*

## **Results on Disproportionate Impact**

Tables 3 to 6 in the previous pages identify the disproportionate impact when the PR is taken before ANTH 100. Chi-square tests revealed there is a significant difference between the gender groups. Overall, 68% of students who enter ANTH 100 successfully complete the prerequisite. However, 22% of the female students (the majority group) who entered ANTH 100, successfully completed the prerequisite. When applying the 80% rule,  $22\% \times 80\% = 18\%$ . According to Glasnapp and Poggio's (2001) 80% rule, any group which falls below 39% indicates a disproportionate impact. Table 4 shows that three groups (Male, Female, and Unknown) fell below 39%, However, only the female group yielded statistical significance ( $p = .01$ ) at significance level  $p < .05$ . This finding represents an observed disproportionate impact by gender.

Chi-square tests indicated no statistical differences between groups by ethnicity, age, and/or disability; therefore, no observed disproportionate impact exists by ethnicity, age, and/or disability.

## **Recommendation**

The data indicates that the prerequisite is not necessary: Students are largely successful without the prerequisite course. It is recommended that faculty identify and examine the competency they believe the students need in order to be successful in the course, and determine how it can be met upon course entry. Again, being mindful that the vast majority of the students are successful in the course without the prerequisite.

# ANTH 120 - Introduction to Archeology

Two measures were examined between prerequisite completers and non-completers:

1. Course Grade Averages in ANTH 120
2. Success rate in ANTH 120

Following is the summary of the results.

## Course Grade Averages in ANTH 120

Table 1. Grades in ANTH 120

	Successful Completion of PR	Did Not Successfully Complete PR
A	37	32
B	60	41
C	39	26
D	8	7
F	9	37
W	17	15

Total	170	158
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Course Grade Average	2.45	2.15
T-Value	1.920	
Sig (P-Value)	.967	
Cohen's <i>d</i>	0.11	

To determine if student's course grade average in ANTH 120 is significantly different by the two groups, a t-test of independent groups was performed. Data indicates that students who successfully completed a PR had equivalent course grade average in ANTH 120 as those who did not complete the PR ( $p = 0.967$ ). The effect size was 0.11, indicating a low practical impact on success if students successfully completed a prerequisite prior to enrolling in ANTH 120.

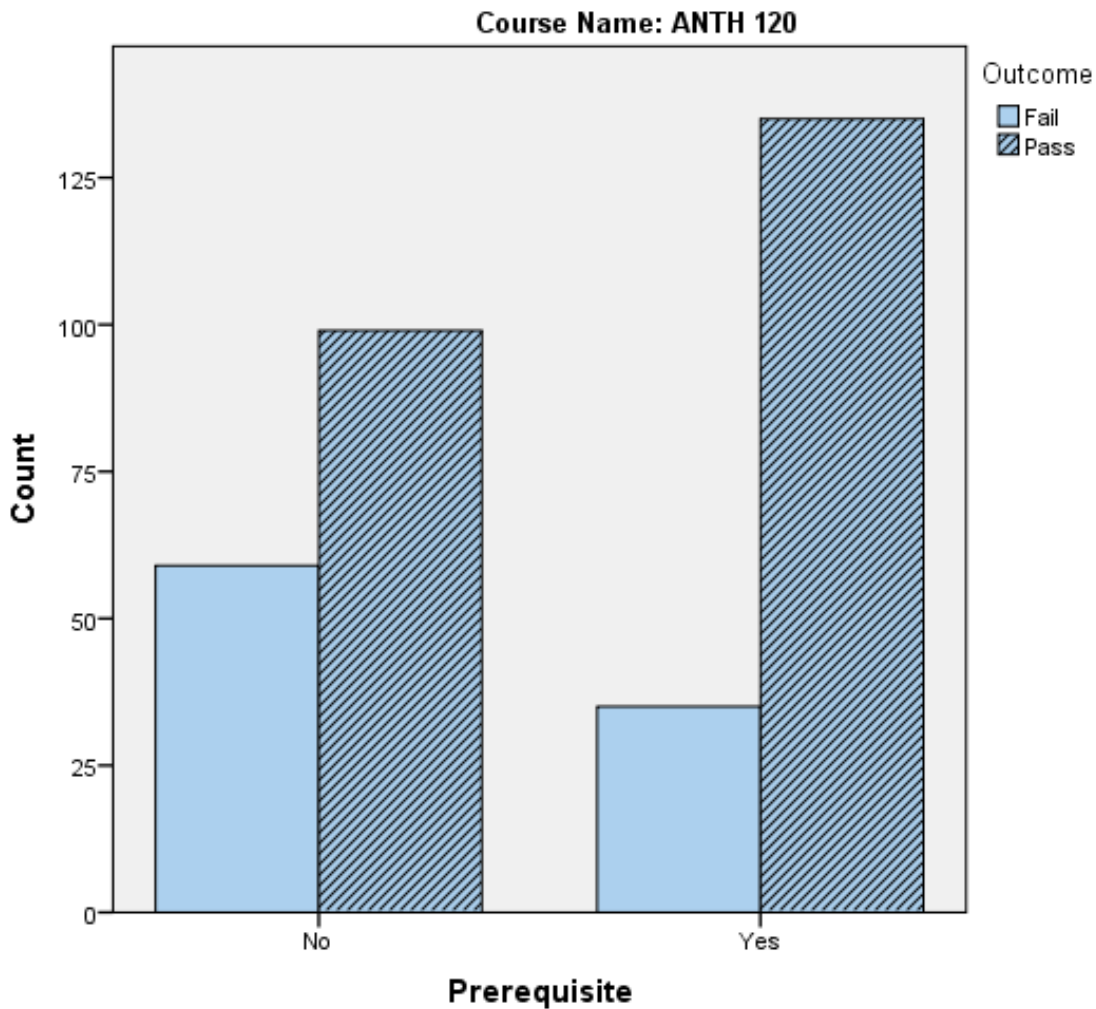
Table 2. Success Rate in ANTH 120

	Completed PR		Total
	Yes	No	
Pass	135	99	234
Fail	35	59	94
	170	158	328
<b>Success Rate</b>	79%	63%	71%

*Chi-Square = 11.242, df = 1, p = .001*

To determine if student's success rate in ANTH 120 is significantly different by the two groups, a chi-square test was performed. Data shows that students who successfully completed the PR had a statistically significantly ( $p = .001$ ) higher success rate (79%) in ANTH 120 than students who did not successfully complete the PR (63%). The current ANTH 120 success rate is 71% and would increase to 79% with the prerequisite (an 11% increase).

**Figure 1**



### **Disproportionate Impact Analysis**

To examine whether a disproportionate impact existed, data were generated for prerequisite course/target course combination. The last column in the following tables (“Disproportionate Impact”) identify whether a disproportionate impact was observed (“Yes” if disproportionate impact was observed).



**Table 3. Disproportionate Impact by Age Group**

Age	Completed PR		Total	% of Completed PR	Disproportionate Impact
	Yes	No			
19 or Younger	42	18	60	70%	No
20-24	72	58	130	55%	No
25-29	12	16	28	43%	No
30-34	7	2	9	78%	Sample too small
35-39	2	4	6	33%	Sample too small
40-49	-	1	1	-	-
50+	-	-	-	-	-
Total	135	99	234		

*Chi-square=.138, df=1, p=.71 (not significant at p<.05)*

**Table 4. Disproportionate Impact by Ethnicity**

Ethnicity	Completed PR		Total	% of Completed PR	Disproportionate Impact
	Yes	No			
African American/Black	2	1	3	67%	No
American Indian/Alaskan Native	-	1	1	-	-
Asian	17	12	29	59%	No
Hispanic/Latino	80	49	129	62%	No
Native Hawaiian/Pacific Islander	-	-	-	-	-
Two or More	13	8	21	62%	No
Unknown/No Response	12	16	28	43%	No
White	11	12	23	49%	No
Total	135	99	234		

*Chi-square=.442, df=1, p=.51 (not significant at p<.05)*

**Table 5. Disproportionate Impact by DSPS**

Disability	Completed PR		Total	% of Completed PR	Disproportionate Impact
	Yes	No			
Yes	2	0	2	100%	Sample too small
No	133	33	166	80%	No
Total	135	99	234		

*Chi-square=10.310, df=1, p=.001 (significant at p<.05)*

**Table 6. Disproportionate Impact by Gender**

Gender	Completed PR		Total	% of Completed PR	Disproportionate Impact
	Yes	No			
Male	61	36	97	63%	No
Female	72	59	131	55%	No
Unknown	2	4	6	33%	No
Total	135	99	234		

*Chi-square=.889, df=1, p=.35 (not significant at p<.05)*

## **Results on Disproportionate Impact**

Tables 3 to 6 in the previous pages identify the disproportionate impact when the PR is taken before ANTH 120.

Chi-square tests indicated no statistical differences between groups by age group, ethnicity, disability, and/or gender; therefore, no observed disproportionate impact exists by age group, ethnicity, disability, and/or gender.

## **Recommendation**

Due to the outcome having significant statistical difference in success, faculty should identify and examine the competency they believe the students need in order to be successful in the course, and determine how it can be met upon course entry.

# HIST 101 – American History and Constitution

Two measures were examined between prerequisite completers and non-completers:

1. Course Grade Averages in HIST 101
2. Success rate in HIST 101

Following is the summary of the results.

## Course Grade Averages in HIST 101

**Table 1. Grades in HIST 101**

	Successful Completion of PR	Did Not Successfully Complete PR
A	2	416
B	2	675
C		800
D	1	249
F	1	400
W	4	410
<b>Total</b>	<b>10</b>	<b>2950</b>
Course Grade Average	2.50	2.28
T-Value	.496	
Sig (P-Value)	.620	
Cohen's <i>d</i>	0.08	

To determine if student's course grade average in HIST 101 is significantly different by the two groups, a t-test of independent groups was performed. Data indicates that students who successfully completed a PR had a slightly higher course grade average in HIST 101 than those who did not complete the prerequisite ( $p = 0.620$ ). The effect size was 0.08, indicating a low practical impact on success if students successfully completed a prerequisite prior to enrolling in HIST 101.

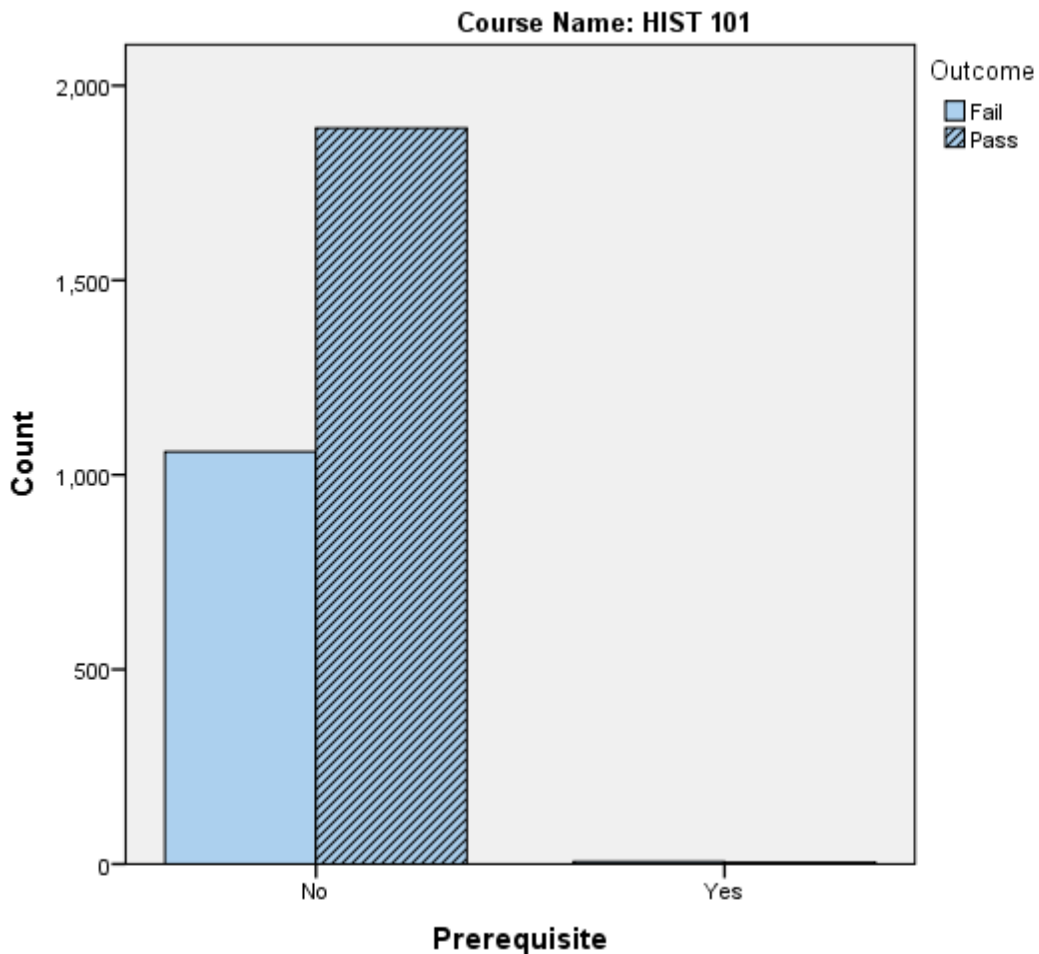
**Table 2. Success Rate in HIST 101**

	Completed PR		Total
	Yes	No	
<b>Pass</b>	4	1891	1895
<b>Fail</b>	6	1059	1065
	10	2950	2960
<b>Success Rate</b>	40%	64%	64%

*Chi-Square = 2.513, df = 1, p = .11*

To determine if student's success rate in HIST 101 is significantly different by the two groups, a chi-square test was performed. Data shows that students who successfully completed the PR had a lower success rate (60%) in HIST 101 than students who did not successfully complete the PR (67%). However, results were not statistically significant ( $p = .11$ ).

**Figure 1**



### **Disproportionate Impact Analysis**

To examine whether a disproportionate impact existed, data were generated for prerequisite course/target course combination. The last column in the following tables ("Disproportionate Impact") identify whether a disproportionate impact was observed ("Yes" if disproportionate impact was observed).

**Table 3. Disproportionate Impact by Age Group**

Age	Completed PR		Total	% of Completed PR	Disproportionate Impact
	Yes	No			
19 or Younger	1	321	322	0%	No
20-24	3	1104	1107	0%	No
25-29	-	255	255	-	-
30-34	-	100	100	-	-
35-39	-	50	50	-	-
40-49	-	40	40	-	-
50+	-	21	21	-	-
Total	4	1891	1895		

*Chi-square=1.813, df=1, p=.18 (not significant at p<.05)*

**Table 4. Disproportionate Impact by Ethnicity**

Ethnicity	Completed PR		Total	% of Completed PR	Disproportionate Impact
	Yes	No			
African American/Black	-	76	76	-	-
American Indian/Alaskan Native	-	34	34	-	-
Asian	1	203	204	0%	No
Hispanic/Latino	1	1023	1024	0%	No
Native Hawaiian/Pacific Islander	-	10	10	-	-
Two or More	1	158	159	1%	No
Unknown/No Response	-	263	263	-	-
White	1	124	125	1%	No
Total	4	1891	1895		

*Chi-square=.3.843, df=1, p=.05 (not significant at p<.05)*

**Table 5. Disproportionate Impact by DSPTS**

Disability	Completed PR		Total	% of Completed PR	Disproportionate Impact
	Yes	No			
Yes	-	81	81	-	-
No	4	1810	1814	0%	No
Total	4	1891	1895		

*Chi-square=2.560, df=1, p=.11 (not significant at p<.05)*

**Table 6. Disproportionate Impact by Gender**

Gender	Completed PR		Total	% of Completed PR	Disproportionate Impact
	Yes	No			
Male	2	924	926	0%	No
Female	2	923	925	0%	No
Unknown	-	44	44	-	-
Total	4	1891	1895		

*Chi-square=.620, df=1, p=.43 (not significant at  $p<.05$ )*

## **Results on Disproportionate Impact**

Tables 3 to 6 in the previous pages identify the disproportionate impact when the PR is taken before HIST 101.

Chi-square tests indicated no statistical differences between groups by age group, ethnicity, disability, and/or gender; therefore, no observed disproportionate impact exists by age group, ethnicity, disability, and/or gender.

## **Recommendation**

Due to the lack of prerequisite outcome data, there was no significant statistical difference in success. However, based on the high success outcome data for HIST 101, students are largely successful without the prerequisite course. It is recommended that faculty identify and examine the competency they believe the students need in order to be successful in the course, and determine how it can be met upon course entry. Again, being mindful that the vast majority of the students are successful in the course without the prerequisite.

# HIST 102 – Political and Social History of the United States 1500 to 1876

Two measures were examined between prerequisite completers and non-completers:

1. Course Grade Averages in HIST 102
2. Success rate in HIST 102

Following is the summary of the results.

## Course Grade Averages in HIST 102

**Table 1. Grades in HIST 102**

	Successful Completion of PR	Did Not Successfully Complete PR
A	11	1096
B	23	1689
C	32	1616
D	16	564
F	11	580
W	17	1002
<b>Total</b>	<b>110</b>	<b>6547</b>
Course Grade Average	2.02	2.32
T-Value	2.238	
Sig (P-Value)	.081	
Cohen's <i>d</i>	0.10	

To determine if student's course grade average in HIST 102 is significantly different by the two groups, a t-test of independent groups was performed. Data indicates that students who successfully completed a PR had a lower course grade average in HIST 102 than those who did not complete the PR ( $p = 0.081$ ). The effect size was 0.10, indicating a low practical impact on success if students successfully completed a prerequisite prior to enrolling in HIST 102.

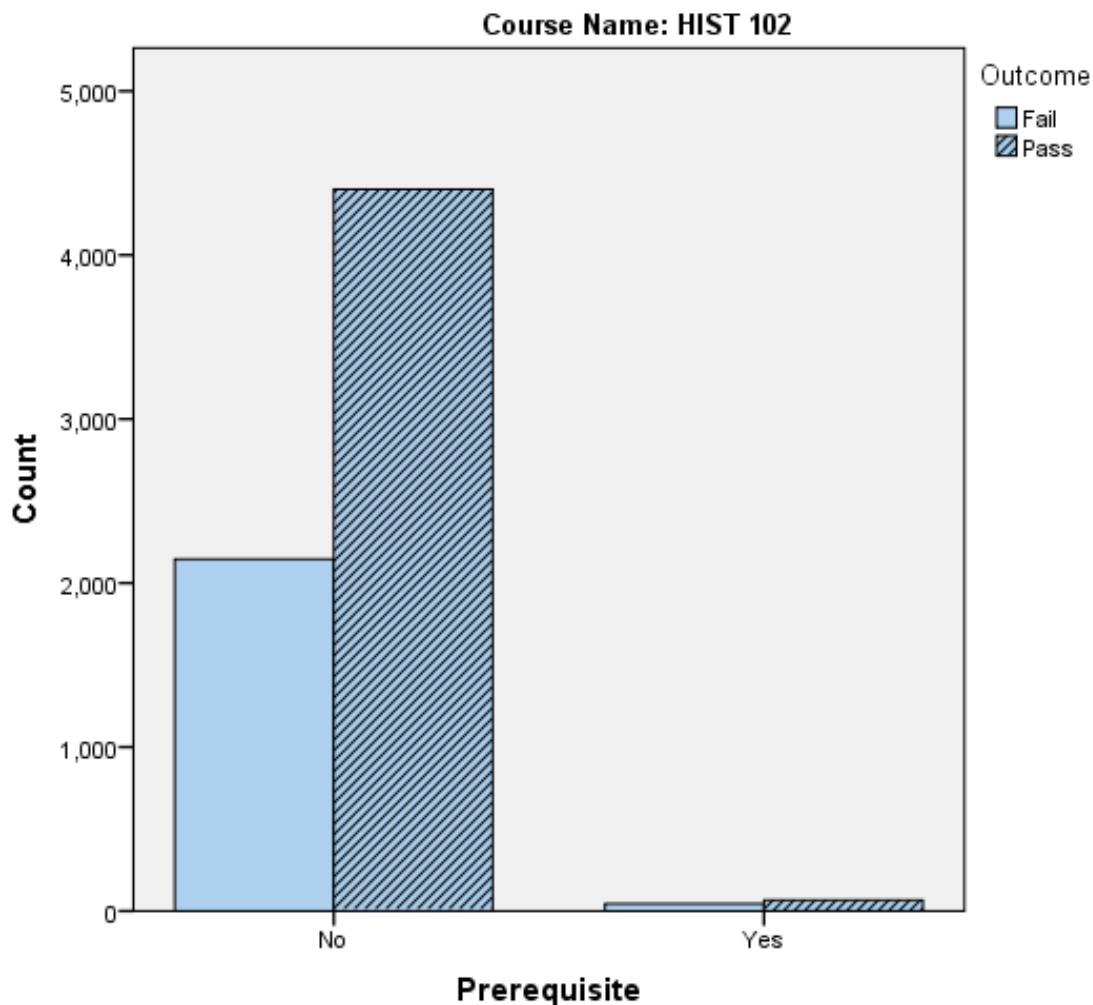
**Table 2. Success Rate in HIST 102**

	Completed PR		Total
	Yes	No	
<b>Pass</b>	66	4401	4467
<b>Fail</b>	44	2146	2190
	110	6547	6657
<b>Success Rate</b>	60%	67%	67%

*Chi-Square = 2.513, df = 1, p = .11*

To determine if student's success rate in HIST 102 is significantly different by the two groups, a chi-square test was performed. Data shows that students who successfully completed the PR had lower success rate (60%) in HIST 102 than students who did not successfully complete the PR (67%). However, results were not statistically significant ( $p = .11$ ).

**Figure 1**



### **Disproportionate Impact Analysis**

To examine whether a disproportionate impact existed, data were generated for prerequisite course/target course combination. The last column in the following tables ("Disproportionate Impact") identify whether a disproportionate impact was observed ("Yes" if disproportionate impact was observed).



**Table 3. Disproportionate Impact by Age Group**

Age	Completed PR		Total	% of Completed PR	Disproportionate Impact
	Yes	No			
19 or Younger	25	855	880	3%	No
20-24	32	2643	2675	1%	No
25-29	4	537	541	1%	No
30-34	2	166	168	1%	No
35-39	2	78	80	3%	No
40-49	1	87	88	1%	No
50+	-	35	35	-	-
Total	66	4401	4467		

*Chi-square=1.982, df=1, p=.16 (not significant at p<.05)*

**Table 4. Disproportionate Impact by Ethnicity**

Ethnicity	Completed PR		Total	% of Completed PR	Disproportionate Impact
	Yes	No			
African American/Black	4	179	183	2%	No
American Indian/Alaskan Native	2	75	77	3%	No
Asian	12	398	410	3%	No
Hispanic/Latino	36	2550	2586	1%	No
Native Hawaiian/Pacific Islander	-	25	25	-	-
Two or More	5	457	462	1%	No
Unknown/No Response	4	447	451	1%	No
White	3	270	273	1%	No
Total	66	4401	4467		

*Chi-square=1.622, df=1, p=.20 (not significant at p<.05)*

**Table 5. Disproportionate Impact by DSPTS**

Disability	Completed PR		Total	% of Completed PR	Disproportionate Impact
	Yes	No			
Yes	2	106	108	2%	No
No	64	4295	4359	1%	No
Total	66	4401	4467		

*Chi-square=.016, df=1, p=.90 (not significant at p<.05)*

**Table 6. Disproportionate Impact by Gender**

Gender	Completed PR		Total	% of Completed PR	Disproportionate Impact
	Yes	No			
Male	24	1900	1924	1%	No
Female	42	2415	2457	2%	No
Unknown	-	86	-	-	-
Total	66	4401	4467		

*Chi-square=1.018, df=1, p=.31 (not significant at p<.05)*

## **Results on Disproportionate Impact**

Tables 3 to 6 in the previous pages identify the disproportionate impact when the PR is taken before HIST 102.

Chi-square tests indicated no statistical differences between groups by age group, ethnicity, disability, and/or gender; therefore, no observed disproportionate impact exists by age group, ethnicity, disability, and/or gender.

## **Recommendation**

Due to the lack of prerequisite outcome data, there was no significant statistical difference in success. However, based on the high success outcome data for HIST 102, students are largely successful without the prerequisite course. It is recommended that faculty identify and examine the competency they believe the students need in order to be successful in the course, and determine how it can be met upon course entry. Again, being mindful that the vast majority of the students are successful in the course without the prerequisite.

# HIST 103 - Political and Social History of the United States 1877 to Present

Two measures were examined between prerequisite completers and non-completers:

1. Course Grade Averages in HIST 103
2. Success rate in HIST 103

Following is the summary of the results.

## Course Grade Averages in HIST 103

**Table 1. Grades in HIST 103**

	Successful Completion of PR	Did Not Successfully Complete PR
A	15	1463
B	27	2039
C	26	1457
D	12	425
F	11	525
W	10	785
<b>Total</b>	<b>101</b>	<b>6694</b>
Course Grade Average	2.15	2.31
T-Value	1.158	
Sig (P-Value)	.90	
Cohen's <i>d</i>	.05	

To determine if student's course grade average in HIST 103 is significantly different by the two groups, a t-test of independent groups was performed. Data indicates that students who successfully completed a PR had a lower course grade average in HIST 103 than those who did not complete the PR ( $p = 0.900$ ). The effect size was 0.05, indicating a low practical impact on success if students successfully completed a prerequisite prior to enrolling in HIST 103.

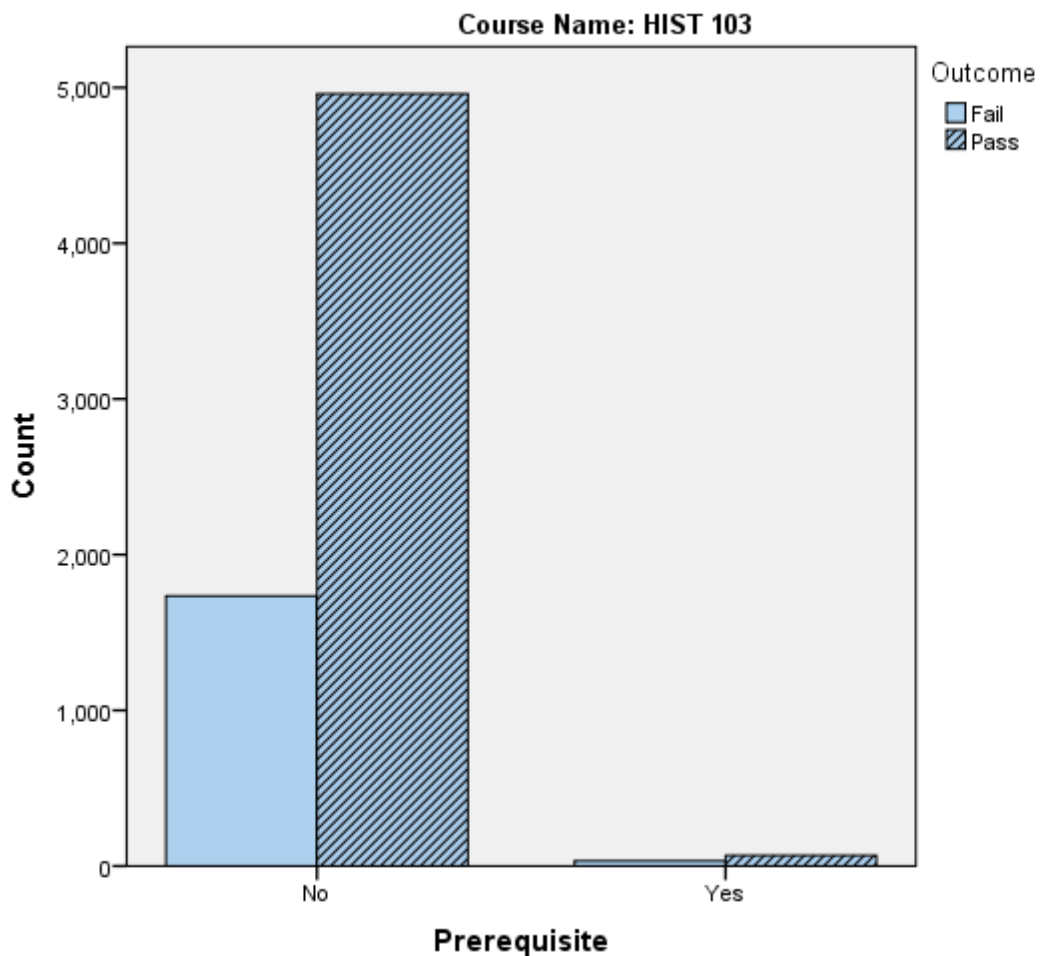
**Table 2. Success Rate in HIST 103**

	Completed PR		Total
	Yes	No	
<b>Pass</b>	68	4959	5027
<b>Fail</b>	33	1735	1768
	101	6694	6795
<b>Success Rate</b>	67%	74%	74%

*Chi-Square = 2.358, df = 1, p = .13*

To determine if student's success rate in HIST 103 is significantly different by the two groups, a chi-square test was performed. Data shows that students who successfully completed the PR had lower success rate (60%) in HIST 103 than students who did not successfully complete the PR (74%). However, results were not statistically significant ( $p = .13$ ).

**Figure 1**



### **Disproportionate Impact Analysis**

To examine whether a disproportionate impact existed, data were generated for prerequisite course/target course combination. The last column in the following tables ("Disproportionate Impact") identify whether a disproportionate impact was observed ("Yes" if disproportionate impact was observed).

**Table 3. Disproportionate Impact by Age Group**

Age	Completed PR		Total	% of Completed PR	Disproportionate Impact
	Yes	No			
19 or Younger	26	993	1019	3%	No
20-24	29	2914	2943	1%	No
25-29	7	575	582	1%	No
30-34	3	234	237	1%	No
35-39	1	97	98	1%	No
40-49	2	111	113	2%	No
50+	-	35	35	-	-
Total	68	4959	5027		

*Chi-square=.001, df=1, p=.98 (not significant at p<.05)*

**Table 4. Disproportionate Impact by Ethnicity**

Ethnicity	Completed PR		Total	% of Completed PR	Disproportionate Impact
	Yes	No			
African American/Black	5	216	221	0%	No
American Indian/Alaskan Native	-	94	94	-	-
Asian	7	487	494	0%	No
Hispanic/Latino	44	2833	2877	0%	No
Native Hawaiian/Pacific Islander	-	12		-	-
Two or More	3	528	531	0%	No
Unknown/No Response	5	509	514	0%	No
White	4	280	284	0%	No
Total	68	4959	5027		

*Chi-square=.118, df=1, p=.73 (not significant at p<.05)*

**Table 5. Disproportionate Impact by DSPS**

Disability	Completed PR		Total	% of Completed PR	Disproportionate Impact
	Yes	No			
Yes	1	91	92	0%	No
No	67	4867	4934	0%	No
Total	68	4959	5027		

*Chi-square=2.093, df=1, p=.15 (not significant at p<.05)*

**Table 6. Disproportionate Impact by Gender**

Gender	Completed PR		Total	% of Completed PR	Disproportionate Impact
	Yes	No			
Male	36	2237	2273	0%	No
Female	31	2638	2669	0%	No
Unknown	1	84	85	0%	No
Total	68	4959	5027		

*Chi-square=1.372, df=1, p=.24 (not significant at  $p<.05$ )*

## **Results on Disproportionate Impact**

Tables 3 to 6 in the previous pages identify the disproportionate impact when the PR is taken before HIST 103.

Chi-square tests indicated no statistical differences between groups by age group, ethnicity, disability, and/or gender; therefore, no observed disproportionate impact exists by age group, ethnicity, disability, and/or gender.

## **Recommendation**

Due to the lack of prerequisite outcome data, there was no significant statistical difference in success. However, based on the high success outcome data for HIST 103, students are largely successful without the prerequisite course. It is recommended that faculty identify and examine the competency they believe the students need in order to be successful in the course, and determine how it can be met upon course entry. Again, being mindful that the vast majority of the students are successful in the course without the prerequisite.

# HIST 241 – Western Civilization

Two measures were examined between prerequisite completers and non-completers:

1. Course Grade Averages in HIST 241
2. Success rate in HIST 241

Following is the summary of the results.

## Course Grade Averages in HIST 241

Table 1. Grades in HIST 241

	Did Not Successfully Complete PR
A	50
B	95
C	74
D	10
F	40
W	28
Total	297
Course Grade Average	1.95

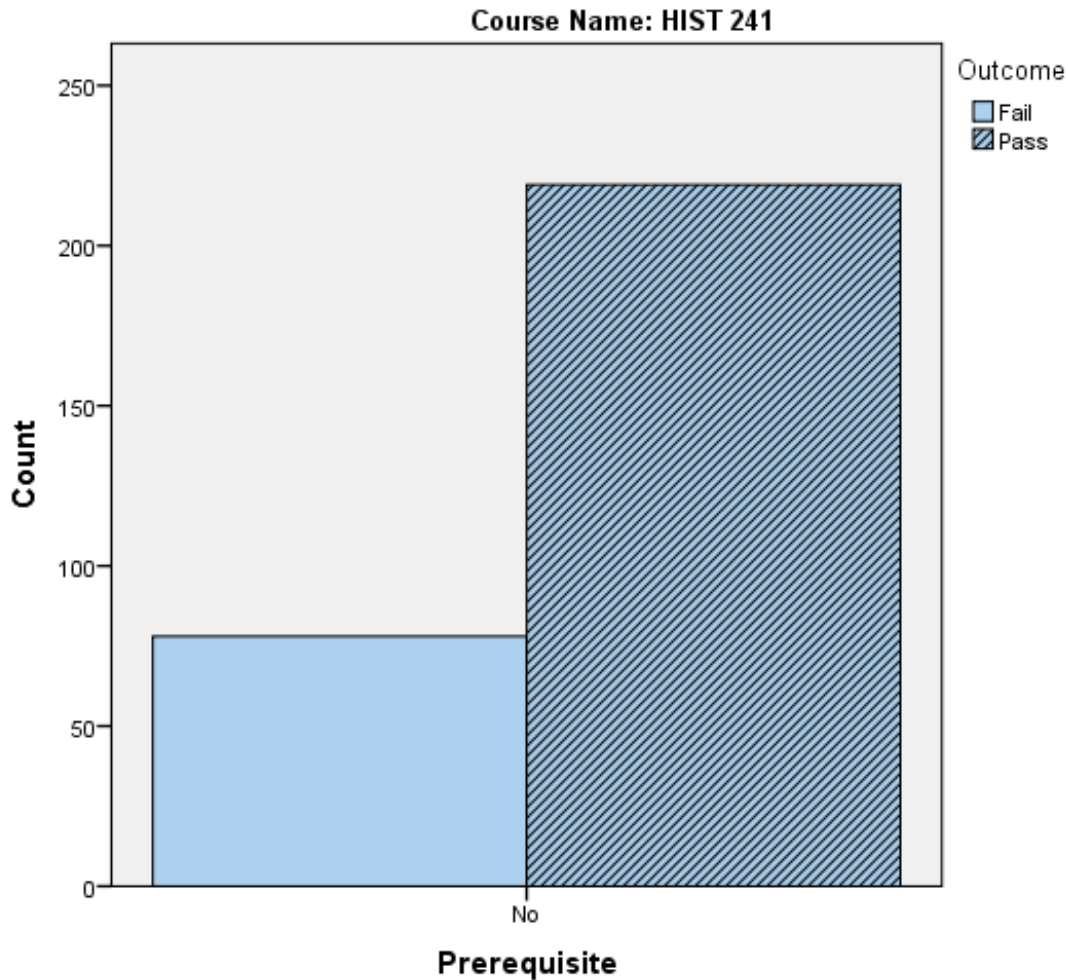
A difference in course grade average could not be determined for HIST 241, because students have not taken a prerequisite course for HIST 241. Data indicates that the course grade average for students who did not successfully complete the PR prior to taking HIST 241 was  $n = 1.95$ .

Table 2. Success Rate in HIST 241

	Total
Pass	219
Fail	78
	297
Success Rate	74%

A difference in student's success rate could not be determined for HIST 241, because students have not taken the prerequisite course prior to taking HIST 24. Data indicates that the success rate for students who did not successfully complete PR prior to taking HIST 241 was 74%.

**Figure 1**



### **Disproportionate Impact Analysis**

The disproportionate impact for HIST 241 could not be determined. No one took the prerequisite course prior to taking HIST 241.

### **Recommendation**

Due to the lack of prerequisite outcome data, statistical difference in success was not calculated. However, based on the high success outcome data for the HIST 241, students are largely successful without the prerequisite course. It is recommended that faculty identify and examine the competency they believe the students need in order to be successful in the course, and determine how it can be met upon course entry. Again, being mindful that the vast majority of the students are successful in the course without the prerequisite.



# PHIL 100 – Introduction to Philosophy

Two measures were examined between prerequisite completers and non-completers:

1. Course Grade Averages in PHIL 100
2. Success rate in PHIL 100

Following is the summary of the results.

## Course Grade Averages in PHIL 100

**Table 1. Grades in PHIL 100**

	Successful Completion of PR	Did Not Successfully Complete PR
A	15	1185
B	13	1371
C	13	802
D	7	261
F	6	309
P	-	6
W	7	553
<b>Total</b>	<b>61</b>	<b>4487</b>
Course Grade Average	2.26	2.30
T-Value	.215	
Sig (P-Value)	.12	
Cohen's <i>d</i>	.01	

To determine if student's course grade average in PHIL 100 is significantly different by the two groups, a t-test of independent groups was performed. Data indicates that students who successfully completed a PR had a slightly lower course grade average in PHIL 100 than those who did not complete the PR ( $p = 0.12$ ). The effect size was .01, indicating a low practical impact on success if students successfully completed a prerequisite prior to enrolling in PHIL 100.

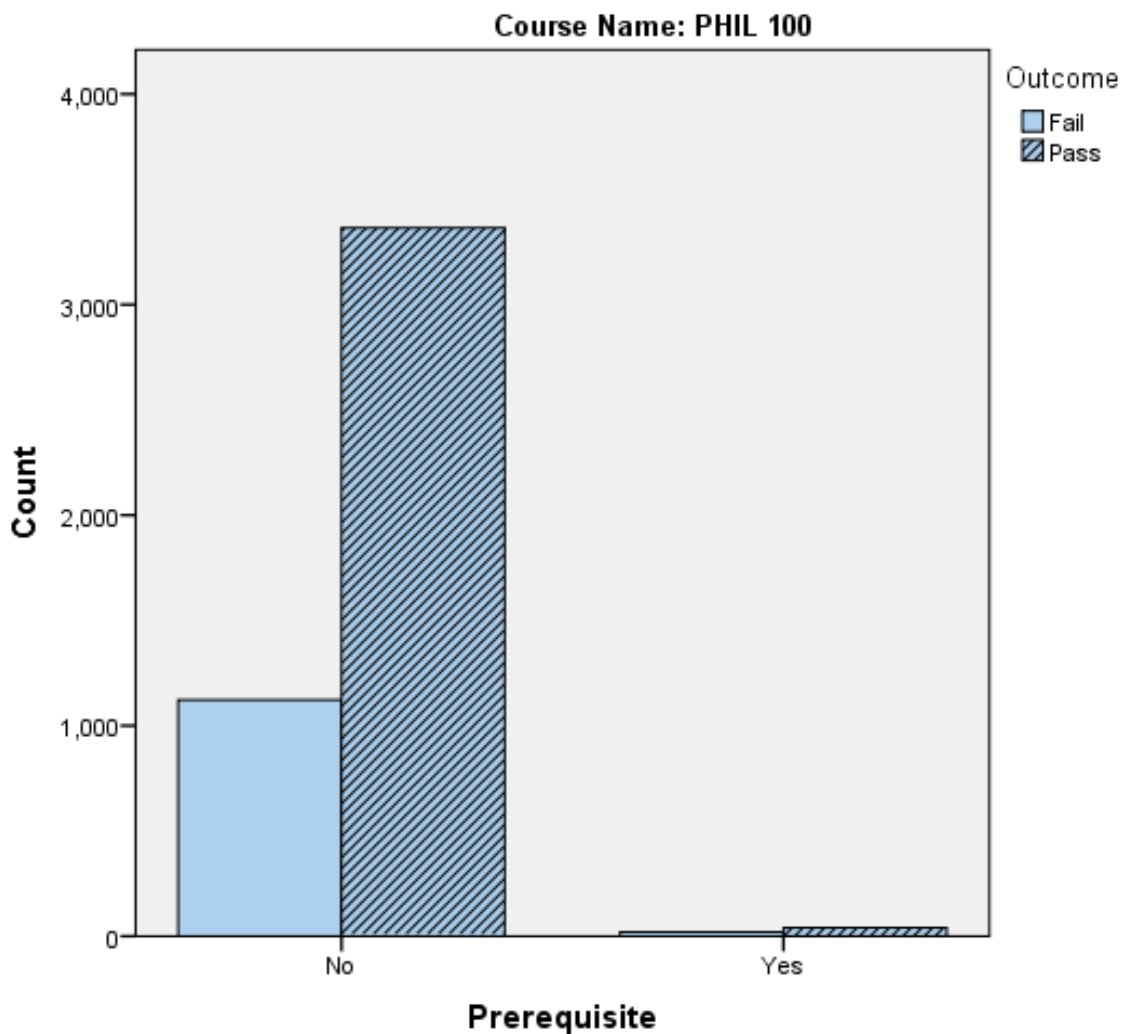
**Table 2. Success Rate in PHIL 100**

	Completed PR		Total
	Yes	No	
<b>Pass</b>	41	3364	3405
<b>Fail</b>	20	1123	1143
	61	4487	4548
<b>Success Rate</b>	67%	75%	75%

*Chi-Square = 1.926, df = 1, p = .17*

To determine if student's success rate in PHIL 100 is significantly different by the two groups, a chi-square test was performed. Data shows that students who successfully completed the PR had a lower success rate (67%) in PHIL 100 than students who did not successfully complete the PR (75%). However, results were not statistically significant ( $p = .17$ ).

**Figure 1**



### **Disproportionate Impact Analysis**

To examine whether a disproportionate impact existed, data were generated for prerequisite course/target course combination. The last column in the following tables ("Disproportionate Impact") identify whether a disproportionate impact was observed ("Yes" if disproportionate impact was observed).

**Table 3. Disproportionate Impact by Age Group**

Age	Completed PR		Total	% of Completed PR	Disproportionate Impact
	Yes	No			
19 or Younger	18	981	999	2%	No
20-24	23	1845	1868	1%	No
25-29	-	339	339	-	N/A
30-34	-	98	98	-	N/A
35-39	-	46	46	-	N/A
40-49	-	39	39	-	N/A
50+	-	16	16	-	N/A
Total	41	3364	3405		

*Chi-square=1.235, df=1, p=.27 (not significant at p<.05)*

**Table 4. Disproportionate Impact by Ethnicity**

Ethnicity	Completed PR		Total	% of Completed PR	Disproportionate Impact
	Yes	No			
African American/Black	3	143	146	0%	No
American Indian/Alaskan Native	1	52	53	0%	No
Asian	6	411	417	0%	No
Hispanic/Latino	25	1854	1879	0%	No
Native Hawaiian/Pacific Islander	1	9	10	10%	Sample too small
Two or More	3	384	387	0%	No
Unknown/No Response	-	330	330	-	N/A
White	2	181	183	0%	No
Total	41	3364	3405		

*Chi-square=.869, df=1, p=.35 (not significant at p<.05)*

**Table 5. Disproportionate Impact by DSPS**

Disability	Completed PR		Total	% of Completed PR	Disproportionate Impact
	Yes	No			
Yes	-	57	57	-	N/A
No	41	3307	3348	0%	Sample too small
Unknown	-	-	-	-	N/A
Total	41	3364	3405		

*Chi-square=1.906, df=1, p=.17 (not significant at p<.05)*

**Table 6. Disproportionate Impact by Gender**

Gender	Completed PR		Total	% of Completed PR	Disproportionate Impact
	Yes	No			
Male	17	1672	1689	0%	Sample too small
Female	24	1637	1661	0%	Sample too small
Unknown	-	55	55	-	N/A
Total	41	3364	3405		

*Chi-square=1.758, df=1, p=.19 (not significant at  $p<.05$ )*

## **Results on Disproportionate Impact**

Tables 3 to 6 in the previous pages identify the disproportionate impact when the PR is taken before PHIL 100.

Chi-square tests indicated no statistical differences between groups by age group, ethnicity, disability, and/or gender; therefore, no observed disproportionate impact exists by age group, ethnicity, disability, and/or gender.

## **Recommendation**

Due to the lack of prerequisite outcome data, there was no significant statistical difference in success. However, based on the high success outcome data for PHIL 100, students are largely successful without the prerequisite course. It is recommended that faculty identify and examine the competency they believe the students need in order to be successful in the course, and determine how it can be met upon course entry. Again, being mindful that the vast majority of the students are successful in the course without the prerequisite.

# PHIL 102 – Introduction to Ethics

Two measures were examined between prerequisite completers and non-completers:

1. Course Grade Averages in PHIL 102
2. Success rate in PHIL 102

Following is the summary of the results.

## Course Grade Averages in PHIL 102

**Table 1. Grades in PHIL 102**

	Successful Completion of PR	Did Not Successfully Complete PR
A	5	664
B	4	554
C	-	183
D	-	63
F	-	64
P	-	1
W	1	128
<b>Total</b>	<b>10</b>	<b>1657</b>
Course Grade Average	2.20	2.30
T-Value	.220	
Sig (P-Value)	.826	
Cohen's <i>d</i>	.03	

To determine if student's course grade average in PHIL 102 is significantly different by the two groups, a t-test of independent groups was performed. Data indicates that students who successfully completed a PR had a slightly lower course grade average in PHIL 102 than those who did not complete the PR ( $p = 0.83$ ). The effect size was .03, indicating a low practical impact on success if students successfully completed a prerequisite prior to enrolling in PHIL 102.

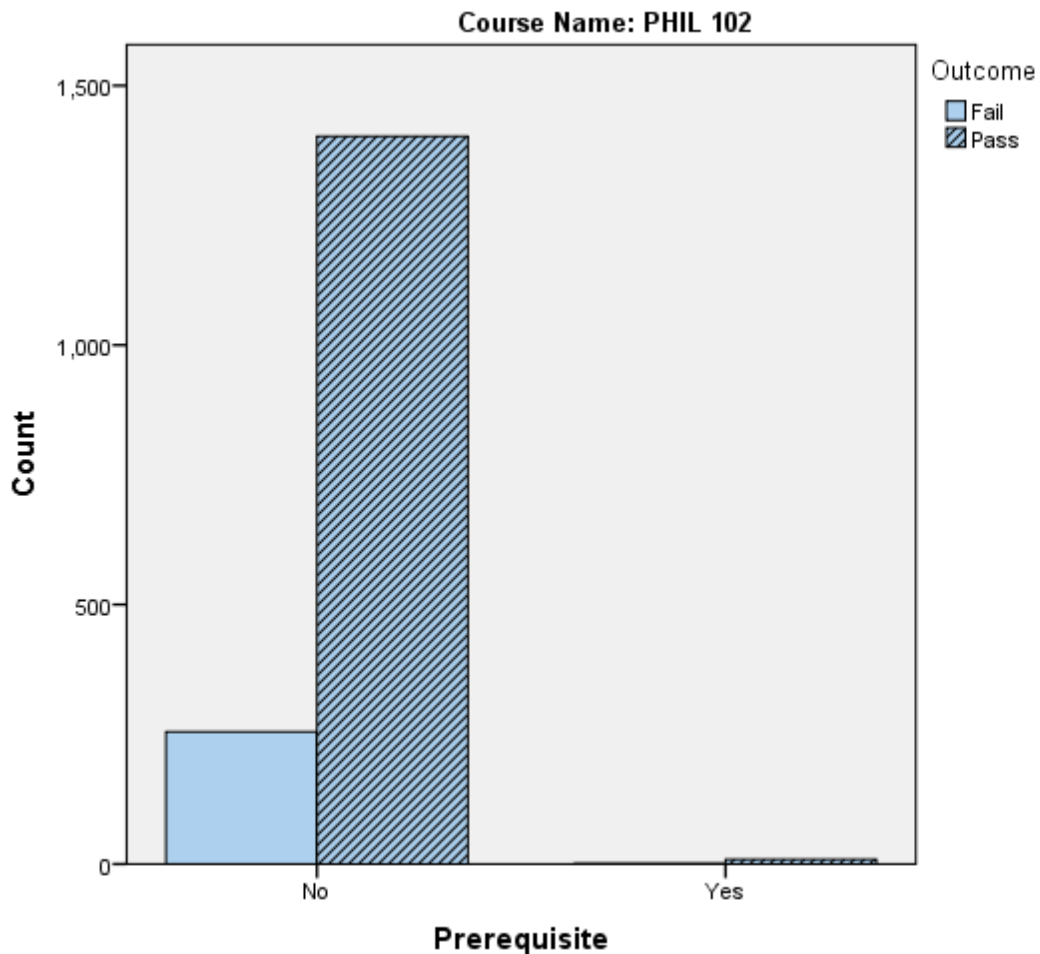
**Table 2. Success Rate in PHIL 102**

	Completed PR		Total
	Yes	No	
<b>Pass</b>	9	1402	1411
<b>Fail</b>	1	255	256
	10	1657	1667
<b>Success Rate</b>	90%	85%	85%

*Chi-Square = .222, df = 1, p = .64*

To determine if student's success rate in PHIL 102 is significantly different by the two groups, a chi-square test was performed. Data shows that students who successfully completed the PR had a higher success rate (90%) in PHIL 102 than students who did not successfully complete the PR (85%). However, results were not statistically significant ( $p = .64$ ).

**Figure 1**



### Disproportionate Impact Analysis

To examine whether a disproportionate impact existed, data were generated for prerequisite course/target course combination. The last column in the following tables ("Disproportionate Impact") identify whether a disproportionate impact was observed ("Yes" if disproportionate impact was observed).

**Table 3. Disproportionate Impact by Age Group**

Age	Completed PR		Total	% of Completed PR	Disproportionate Impact
	Yes	No			
19 or Younger	2	300	302	1%	No
20-24	6	736	742	1%	No
25-29	1	189	190	1%	No
30-34	-	83	83	-	N/A
35-39	-	38	38	-	N/A
40-49	-	34	34	-	N/A
50+	-	22	22	-	N/A
Total	9	1402	1411		

*Chi-square=.015, df=1, p=.90 (not significant at p<.05)*

**Table 4. Disproportionate Impact by Ethnicity**

Ethnicity	Completed PR		Total	% of Completed PR	Disproportionate Impact
	Yes	No			
African American/Black	-	47	47	-	N/A
American Indian/Alaskan Native	1	26	27	0%	Sample too small
Asian	2	192	194	0%	No
Hispanic/Latino	5	762	767	0%	No
Native Hawaiian/Pacific Islander	-	5	5	-	N/A
Two or More	-	128	128	-	N/A
Unknown/No Response	-	162	162	-	N/A
White	1	80	81	0%	No
Total	9	1402	1411		

*Chi-square=.000, df=1, p=.99 (not significant at p<.05)*

**Table 5. Disproportionate Impact by DSPS**

Disability	Completed PR		Total	% of Completed PR	Disproportionate Impact
	Yes	No			
Yes	-	23	23	-	N/A
No	9	1379	1388	0%	No
Unknown	-	-	-	-	N/A
Total	9	1402	1411		

*Chi-square=.219, df=1, p=.64 (not significant at p<.05)*

**Table 6. Disproportionate Impact by Gender**

Gender	Completed PR		Total	% of Completed PR	Disproportionate Impact
	Yes	No			
Male	3	686	689	0%	No
Female	6	686	692	0%	No
Unknown	-	30	30	-	N/A
Total	9	1402	1411		

*Chi-square=.001, df=1, p=.98 (not significant at  $p<.05$ )*

## **Results on Disproportionate Impact**

Tables 3 to 6 in the previous pages identify the disproportionate impact when the PR is taken before PHIL 102.

Chi-square tests indicated no statistical differences between groups by age group, ethnicity, disability, and/or gender; therefore, no observed disproportionate impact exists by age group, ethnicity, disability, and/or gender.

## **Recommendation**

Due to the lack of prerequisite outcome data, there was no significant statistical difference in success. However, based on the high success outcome data for PHIL 102, students are largely successful without the prerequisite course. It is recommended that faculty identify and examine the competency they believe the students need in order to be successful in the course, and determine how it can be met upon course entry. Again, being mindful that the vast majority of the students are successful in the course without the prerequisite.



# PHIL 104 – Philosophy of Cultural Diversity: Challenge and Change

Two measures were examined between prerequisite completers and non-completers:

1. Course Grade Averages in PHIL 104
2. Success rate in PHIL 104

Following is the summary of the results.

## Course Grade Averages in PHIL 104

**Table 1. Grades in PHIL 104**

	Successful Completion of PR	Did Not Successfully Complete PR
A	3	448
B	3	232
C	2	142
D	1	41
F	4	94
W	1	105
<b>Total</b>	<b>14</b>	<b>1112</b>
<b>Course Grade Average</b>	<b>2.93</b>	<b>2.42</b>
<b>T-Value</b>	<b>1.339</b>	
<b>Sig (P-Value)</b>	<b>.181</b>	
<b>Cohen's <i>d</i></b>	<b>.18</b>	

To determine if student's course grade average in PHIL 104 is significantly different by the two groups, a t-test of independent groups was performed. Data indicates that students who successfully completed a PR had a slightly higher course grade average in PHIL 104 than those who did not complete the PR ( $p = 0.18$ ). The effect size was .18, indicating a low practical impact on success if students successfully completed a prerequisite prior to enrolling in PHIL 104.

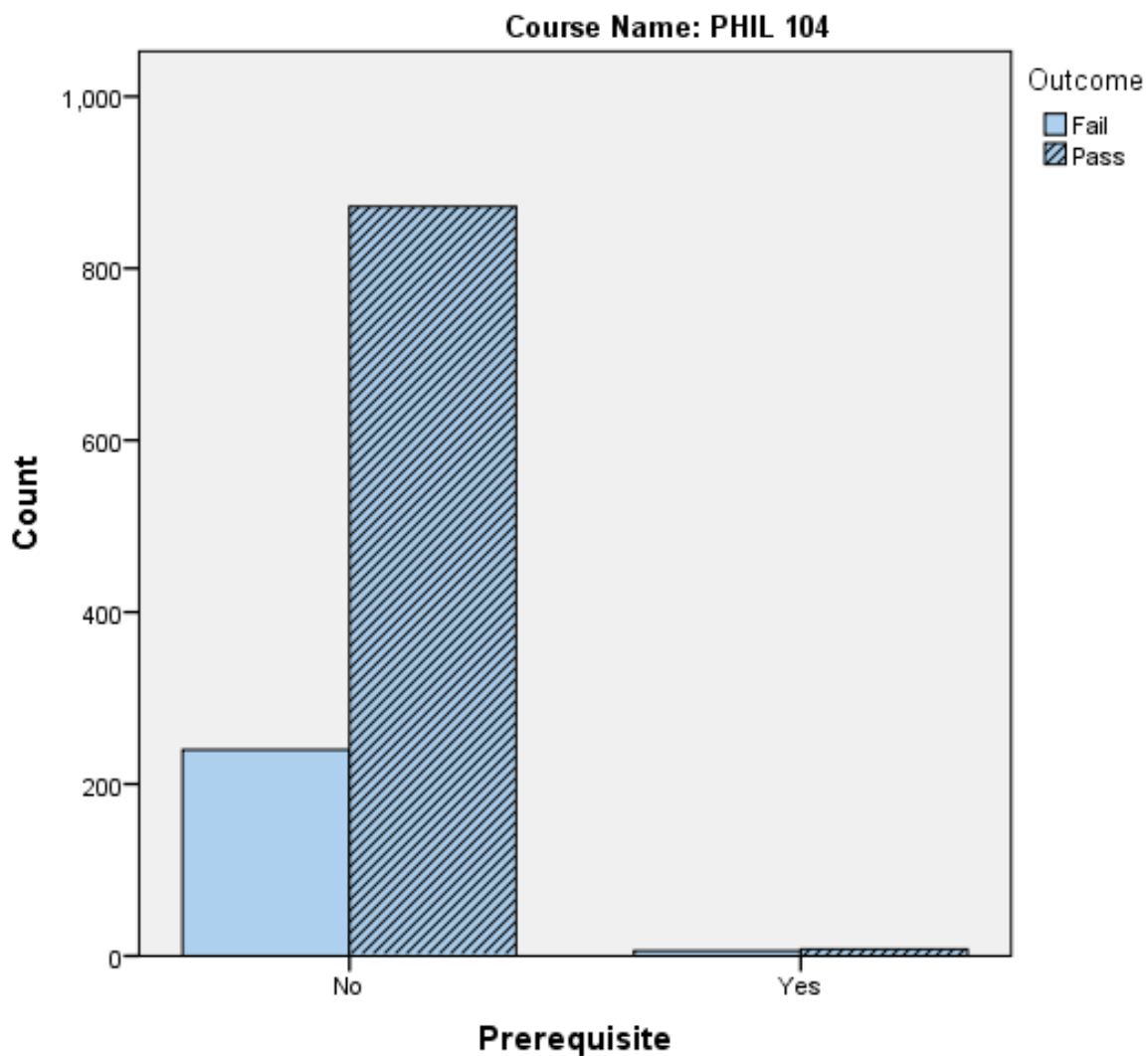
**Table 2. Success Rate in PHIL 104**

	Completed PR		Total
	Yes	No	
<b>Pass</b>	8	872	880
<b>Fail</b>	6	240	246
	14	1112	1126
<b>Success Rate</b>	57%	78%	78%

*Chi-Square = .3.665, df = 1, p= .06*

To determine if student's success rate in PHIL 104 is significantly different by the two groups, a chi-square test was performed. Data shows that students who successfully completed the PR had a lower success rate (57%) in PHIL 104 than students who did not successfully complete the PR (78%). However, results were not statistically significant ( $p = .06$ ).

**Figure 1**



### **Disproportionate Impact Analysis**

To examine whether a disproportionate impact existed, data were generated for prerequisite course/target course combination. The last column in the following tables ("Disproportionate Impact") identify whether a disproportionate impact was observed ("Yes" if disproportionate impact was observed).

**Table 3. Disproportionate Impact by Age Group**

Age	Completed PR		Total	% of Completed PR	Disproportionate Impact
	Yes	No			
19 or Younger	7	323	239	3%	No
20-24	1	459	460	0%	No
25-29	-	101	101	-	N/A
30-34	-	39	39	-	N/A
35-39	-	19	19	-	N/A
40-49	-	17	17	-	N/A
50+	-	5	5	-	N/A
Total	8	872	880		

*Chi-square=.251, df=1, p=.62 (not significant at p<.05)*

**Table 4. Disproportionate Impact by Ethnicity**

Ethnicity	Completed PR		Total	% of Completed PR	Disproportionate Impact
	Yes	No			
African American/Black	-	35	35	-	N/A
American Indian/Alaskan Native	-	17	17	-	N/A
Asian	-	143	143	-	N/A
Hispanic/Latino	8	468	476	2%	No
Native Hawaiian/Pacific Islander	-	5	5	-	N/A
Two or More	-	81	81	-	N/A
Unknown/No Response	-	81	81	-	N/A
White	-	42	42	-	N/A
Total	8	872	880		

*Chi-square=.973, df=1, p=.32 (not significant at p<.05)*

**Table 5. Disproportionate Impact by DSPTS**

Disability	Completed PR		Total	% of Completed PR	Disproportionate Impact
	Yes	No			
Yes	-	16	16	-	N/A
No	8	856	864	1%	No
Total	8	872	880		

*Chi-square=.557, df=1, p=.46 (not significant at p<.05)*

**Table 6. Disproportionate Impact by Gender**

Gender	Completed PR		Total	% of Completed PR	Disproportionate Impact
	Yes	No			
Male	3	278	281	1%	No
Female	5	584	589	1%	No
Unknown	-	10	10	-	N/A
Total	8	872	880		

*Chi-square=.007, df=1, p=.93 (not significant at p<.05)*

## **Results on Disproportionate Impact**

Tables 3 to 6 in the previous pages identify the disproportionate impact when the PR is taken before PHIL 104.

Chi-square tests indicated no statistical differences between groups by age group, ethnicity, disability, and/or gender; therefore, no observed disproportionate impact exists by age group, ethnicity, disability, and/or gender.

## **Recommendation**

Due to the lack of prerequisite outcome data, there was no significant statistical difference in success. However, based on the high success outcome data for PHIL 104, students are largely successful without the prerequisite course. It is recommended that faculty identify and examine the competency they believe the students need in order to be successful in the course, and determine how it can be met upon course entry. Again, being mindful that the vast majority of the students are successful in the course without the prerequisite.

# PHIL 105 – Philosophy of Art and Beauty

Two measures were examined between prerequisite completers and non-completers:

1. Course Grade Averages in PHIL 105
2. Success rate in PHIL 105

Following is the summary of the results.

## Course Grade Averages in PHIL 105

**Table 1. Grades in PHIL 105**

	<b>Did Not Successfully Complete PR</b>
A	27
B	14
C	14
D	-
F	10
W	16
<b>Total</b>	<b>81</b>
<b>Course Grade Average</b>	<b>2.05</b>

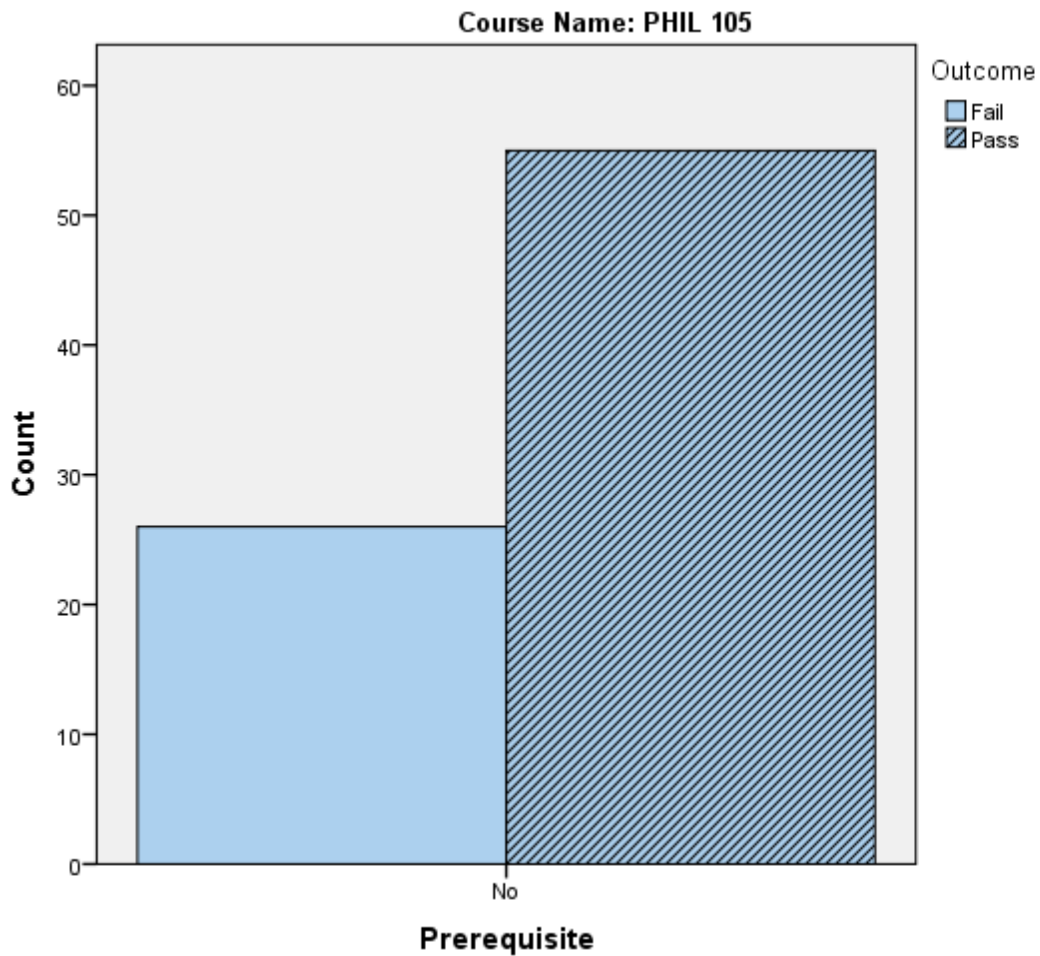
A difference in course grade average could not be determined for PHIL 105, because students have not taken a prerequisite course for PHIL 105. Data indicates that the course grade average for students who did not successfully complete the PR prior to taking PHIL 105 was  $n = 2.05$ .

**Table 2. Success Rate in PHIL 105**

	<b>Total</b>
<b>Pass</b>	55
<b>Fail</b>	26
	81
<b>Success Rate</b>	68%

A difference in student's success rate could not be determined for PHIL 105, because students have not taken the prerequisite course prior to taking PHIL 105. Data indicates that the success rate for students who did not successfully complete PR prior to taking PHIL 105 was 68%.

**Figure 1**



### **Disproportionate Impact Analysis**

The disproportionate impact for PHIL 105 could not be determined. No one took the prerequisite course prior to taking PHIL 105. However, the descriptive statistics are recorded.

### **Recommendation**

Due to the lack of prerequisite outcome data, statistical difference in success was not calculated. However, based on the high success outcome data for the PHIL 105, students are largely successful without the prerequisite course. It is recommended that faculty identify and examine the competency they believe the students need in order to be successful in the course, and determine how it can be met upon course entry. Again, being mindful that the vast majority of the students are successful in the course without the prerequisite.

# PHIL 107 - Philosophy of Science and Technology

Two measures were examined between prerequisite completers and non-completers:

1. Course Grade Averages in PHIL 107
2. Success rate in PHIL 107

Following is the summary of the results.

## Course Grade Averages in PHIL 107

Table 1. Grades in PHIL 107

	Did Not Successfully Complete PR
A	17
B	4
C	-
D	2
F	2
W	8
Total	33
Course Grade Average	1.55

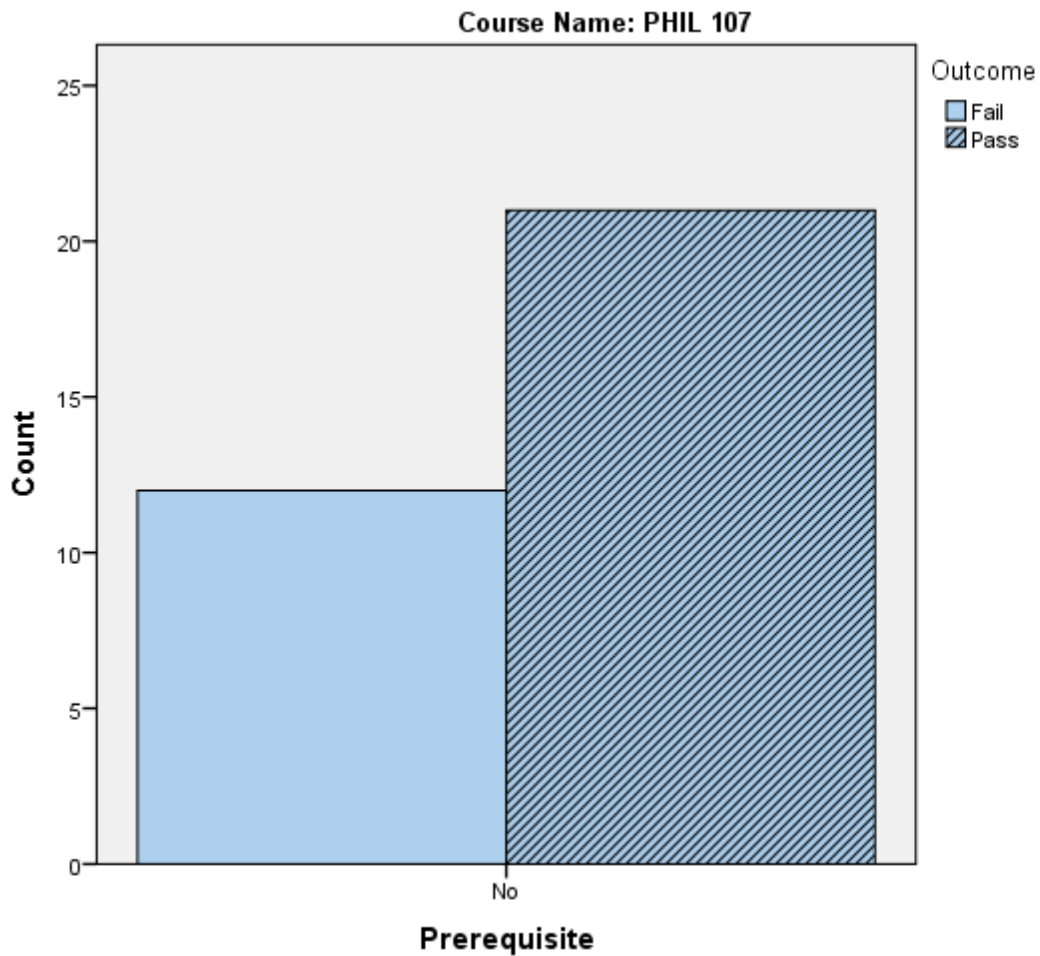
A difference in course grade average could not be determined for PHIL 107, because students have not taken a prerequisite course for PHIL 107. Data indicates that the course grade average for students who did not successfully complete the PR prior to taking PHIL 107 was  $n = 1.55$ .

Table 2. Success Rate in PHIL 107

	Total
Pass	21
Fail	12
	33
Success Rate	64%

A difference in student's success rate could not be determined for PHIL 107, because students have not taken the prerequisite course prior to taking PHIL 107. Data indicates that the success rate for students who did not successfully complete PR prior to taking PHIL 107 was 64%.

**Figure 1**



### **Disproportionate Impact Analysis**

The disproportionate impact for PHIL 107 could not be determined. No one took the prerequisite course prior to taking PHIL 107.

### **Recommendation**

Due to the lack of prerequisite outcome data, statistical difference in success was not calculated. However, based on the high success outcome data for the PHIL 107, students are largely successful without the prerequisite course. It is recommended that faculty identify and examine the competency they believe the students need in order to be successful in the course, and determine how it can be met upon course entry. Again, being mindful that the vast majority of the students are successful in the course without the prerequisite.



# PHIL 108 - Philosophy of the Americans

Two measures were examined between prerequisite completers and non-completers:

1. Course Grade Averages in PHIL 108
2. Success rate in PHIL 108

Following is the summary of the results.

## Course Grade Averages in PHIL 108

**Table 1. Grades in PHIL 108**

	<b>Did Not Successfully Complete PR</b>
A	7
B	7
C	3
D	1
F	3
W	18
Total	39
Course Grade Average	2.03

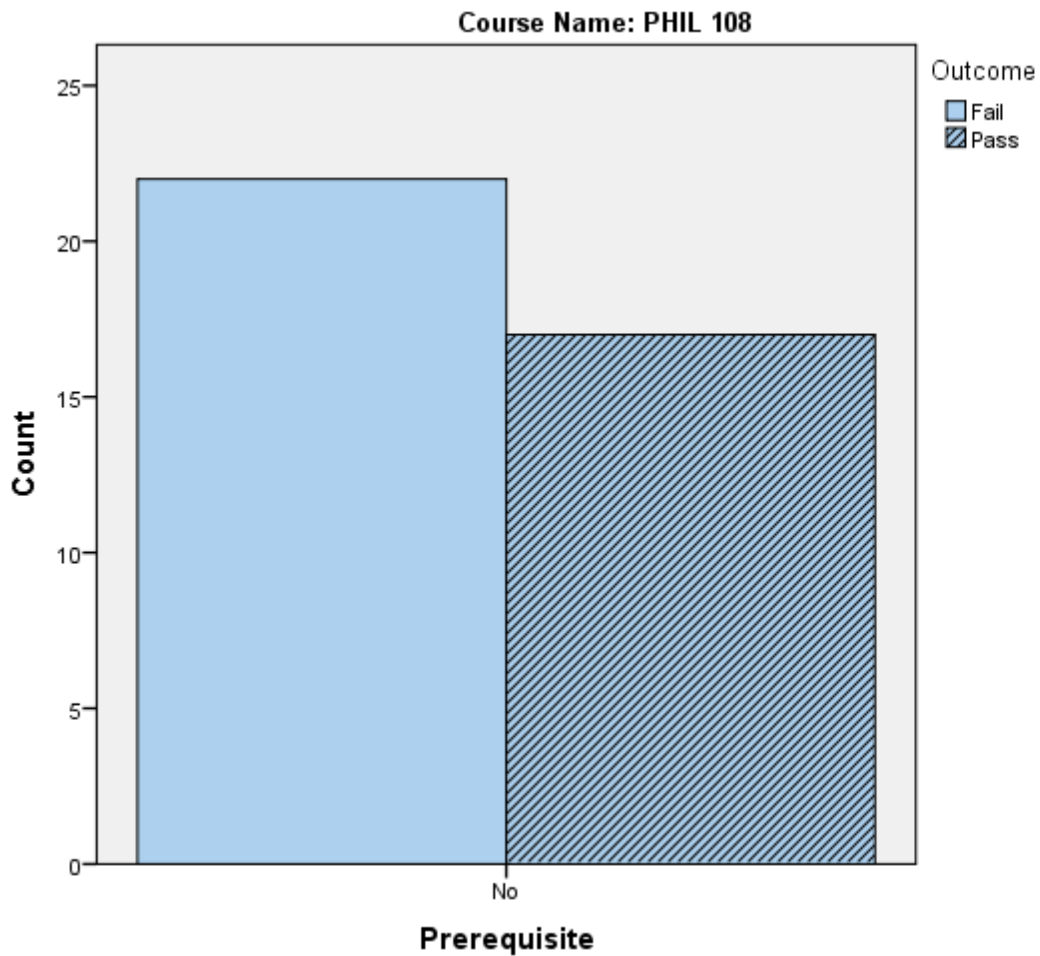
A difference in course grade average could not be determined for PHIL 108, because students have not taken a prerequisite course for PHIL 108. Data indicates that the course grade average for students who did not successfully complete the PR prior to taking PHIL 108 was  $n = 2.03$ .

**Table 2. Success Rate in PHIL 108**

	<b>Total</b>
<b>Pass</b>	17
<b>Fail</b>	22
	39
<b>Success Rate</b>	44%

A difference in student's success rate could not be determined for PHIL 108, because students have not taken the prerequisite course prior to taking PHIL 108. Data indicates that the success rate for students who did not successfully complete PR prior to taking PHIL 108 was 84%.

**Figure 1**



### **Disproportionate Impact Analysis**

The disproportionate impact for PHIL 108 could not be determined. No one took the prerequisite course prior to taking PHIL 108.

### **Recommendation**

Due to the lack of prerequisite outcome data, statistical difference in success was not calculated. However, based on the high success outcome data for the PHIL 108, students are largely successful without the prerequisite course. It is recommended that faculty identify and examine the competency they believe the students need in order to be successful in the course, and determine how it can be met upon course entry. Again, being mindful that the vast majority of the students are successful in the course without the prerequisite.

# PHIL 109 - Philosophy of the Body, Feminism, and Gender

Two measures were examined between prerequisite completers and non-completers:

1. Course Grade Averages in PHIL 109
2. Success rate in PHIL 109

Following is the summary of the results.

## Course Grade Averages in PHIL 109

**Table 1. Grades in PHIL 109**

	Successful Completion of PR	Did Not Successfully Complete PR
A	5	9
B	3	7
C	2	2
D	2	2
F	4	8
W	6	16
<b>Total</b>	<b>22</b>	<b>44</b>
Course Grade Average	1.64	2.00
T-Value	1.108	
Sig (P-Value)	.272	
Cohen's <i>d</i>	0.14	

To determine if student's course grade average in PHIL 109 is significantly different by the two groups, a t-test of independent groups was performed. Data indicates that students who successfully completed a PR had a lower course grade average in PHIL 109 than those who did not complete the PR ( $p = 0.27$ ). The effect size was .14, indicating a low practical impact on success if students successfully completed a prerequisite prior to enrolling in PHIL 109.

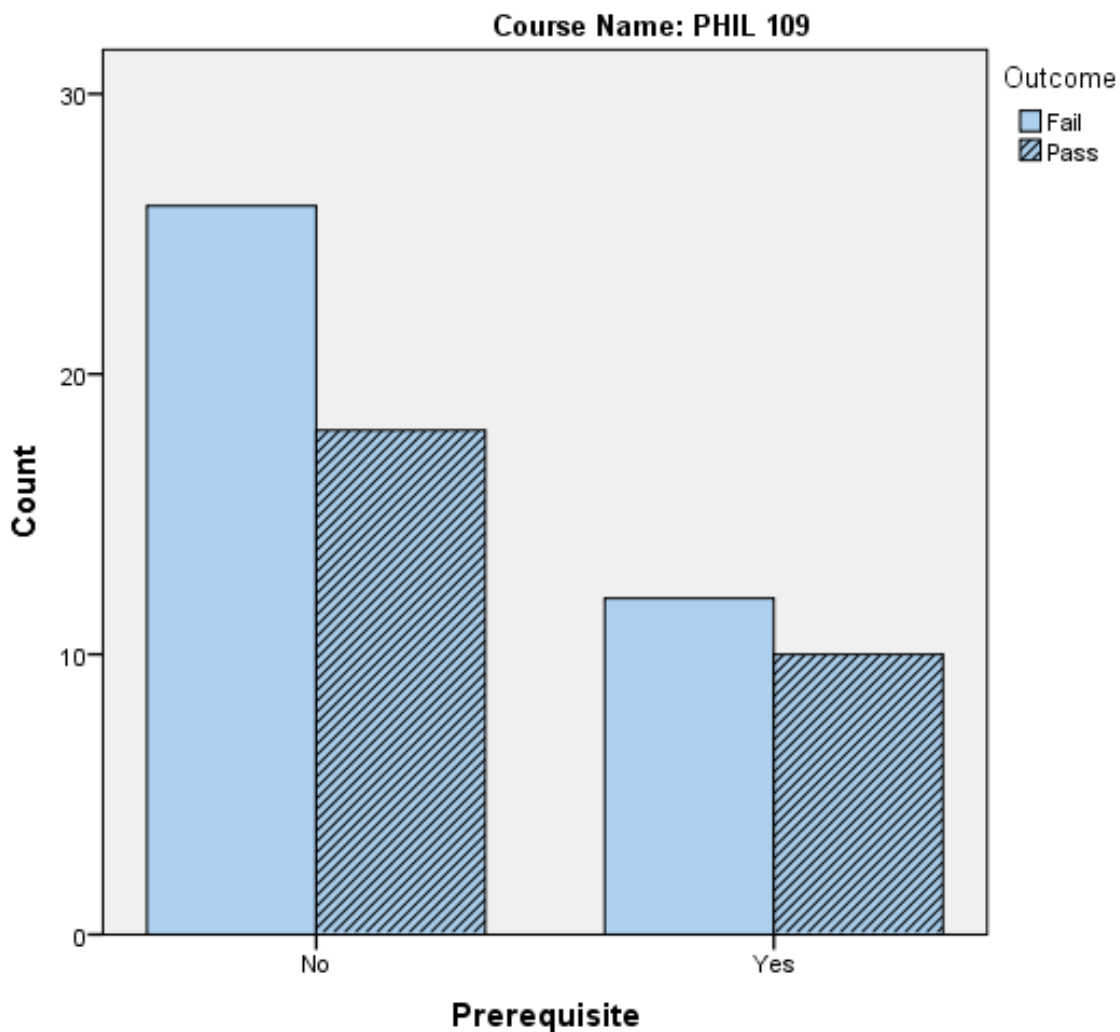
**Table 2. Success Rate in PHIL 109**

	Completed PR		Total
	Yes	No	
<b>Pass</b>	10	18	28
<b>Fail</b>	12	26	38
	22	44	66
<b>Success Rate</b>	45%	41%	42%

*Chi-Square = .124, df = 1, p = .73*

To determine if student's success rate in PHIL 109 is significantly different by the two groups, a chi-square test was performed. Data shows that students who successfully completed the PR had a higher success rate (45%) in PHIL 109 than students who did not successfully complete the PR (41%). However, results were not statistically significant ( $p = .73$ ).

**Figure 1**



### **Disproportionate Impact Analysis**

To examine whether a disproportionate impact existed, data were generated for prerequisite course/target course combination. The last column in the following tables ("Disproportionate Impact") identify whether a disproportionate impact was observed ("Yes" if disproportionate impact was observed).

**Table 3. Disproportionate Impact by Age Group**

Age	Completed PR		Total	% of Completed PR	Disproportionate Impact
	Yes	No			
19 or Younger	3	5	8	38%	Sample too small
20-24	7	9	16	44%	Sample too small
25-29	-	2	2	-	N/A
30-34	-	2	2	-	N/A
35-39	-	-	-	-	N/A
40-49	-	-	-	-	N/A
50+	-	-	-	-	N/A
Total	10	18	28		

*Chi-square=.000, df=1, p=1.00 (not significant at  $p<.05$ )*

**Table 4. Disproportionate Impact by Ethnicity**

Ethnicity	Completed PR		Total	% of Completed PR	Disproportionate Impact
	Yes	No			
African American/Black	-	-	-	-	N/A
American Indian/Alaskan Native	-	-	-	-	N/A
Asian	-	-	-	-	N/A
Hispanic/Latino	6	12	18	33%	Sample too small
Native Hawaiian/Pacific Islander	-	-	-	-	N/A
Two or More	2	2	4	50%	Sample too small
Unknown/No Response	2	2	4	50%	Sample too small
White	-	2	2	-	N/A
Total	10	18	28		

*Chi-square=.000, df=1, p=1.00 (not significant at  $p<.05$ )*

**Table 5. Disproportionate Impact by DSPTS**

Disability	Completed PR		Total	% of Completed PR	Disproportionate Impact
	Yes	No			
Yes	-	-	-	-	N/A
No	10	18	28	36%	No
Total	10	18	28		

*Chi-square=.124, df=1, p=.73 (not significant at  $p<.05$ )*

**Table 6. Disproportionate Impact by Gender**

Gender	Completed PR		Total	% of Completed PR	Disproportionate Impact
	Yes	No			
Male	1	5	6	17%	Sample too small
Female	9	13	22	41%	No
Unknown	-	-	-	-	N/A
Total	10	18	28		

*Chi-square=.004, df=1, p=.95 (not significant at p<.05)*

## **Results on Disproportionate Impact**

Tables 3 to 6 in the previous pages identify the disproportionate impact when the PR is taken before PHIL 109.

Chi-square tests indicated no statistical differences between groups by age group, ethnicity, disability, and/or gender; therefore, no observed disproportionate impact exists by age group, ethnicity, disability, and/or gender.

## **Recommendation**

Based on the high failure outcome data for PHIL 109 with and without prerequisite, faculty should continue to enforce the prerequisite.

# PHIL 130 - History of Ancient Philosophy

Two measures were examined between prerequisite completers and non-completers:

1. Course Grade Averages in PHIL 130
2. Success rate in PHIL 130

Following is the summary of the results.

## Course Grade Averages in PHIL 130

**Table 1. Grades in PHIL 130**

	Successful Completion of PR	Did Not Successfully Complete PR
A	4	7
B	3	9
C	2	5
D	-	1
F	1	-
W	6	6
Total	16	28
Course Grade Average	1.63	2.50
T-Value	1.760	
Sig (P-Value)	.09	
Cohen's <i>d</i>	.27	

To determine if student's course grade average in PHIL 130 is significantly different by the two groups, a t-test of independent groups was performed. Data indicates that students who successfully completed a PR had a lower course grade average in PHIL 130 than those who did not complete the PR ( $p = 0.09$ ). The effect size was .27, indicating a low / mild practical impact on success if students successfully completed a prerequisite prior to enrolling in PHIL 130.

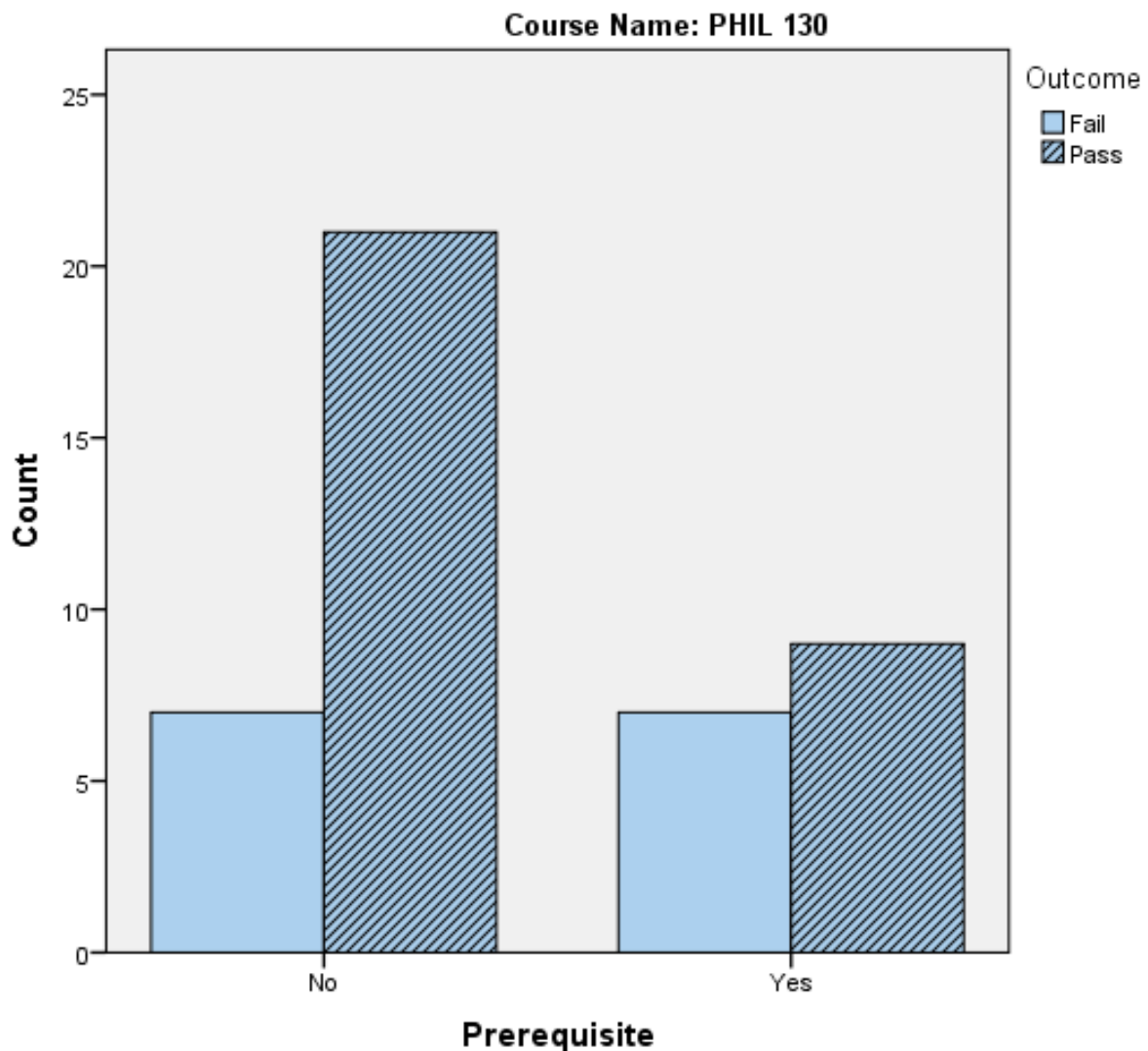
**Table 2. Success Rate in PHIL 130**

	Completed PR		Total
	Yes	No	
<b>Pass</b>	9	21	30
<b>Fail</b>	7	7	14
	16	28	44
<b>Success Rate</b>	56%	75%	68%

*Chi-Square = 1.650, df = 1, p = .20*

To determine if student's success rate in PHIL 130 is significantly different by the two groups, a chi-square test was performed. Data shows that students who successfully completed the PR had a lower success rate (56%) in PHIL 130 than students who did not successfully complete the PR (75%). However, results were not statistically significant ( $p = .20$ ).

**Figure 1**



### **Disproportionate Impact Analysis**

To examine whether a disproportionate impact existed, data were generated for prerequisite course/target course combination. The last column in the following tables ("Disproportionate Impact") identify whether a disproportionate impact was observed ("Yes" if disproportionate impact was observed).



**Table 3. Disproportionate Impact by Age Group**

Age	Completed PR		Total	% of Completed PR	Disproportionate Impact
	Yes	No			
19 or Younger	1	7	8	13%	Sample too small
20-24	5	11	16	31%	No
25-29	2	2	4	50%	Sample too small
30-34	-	-	-	-	N/A
35-39	1	1	2	50%	Sample too small
40-49	-	-	-	-	N/A
50+	-	-	-	-	N/A
Total	9	21	30		

*Chi-square=2.264, df=1, p=.13 (not significant at p<.05)*

**Table 4. Disproportionate Impact by Ethnicity**

Ethnicity	Completed PR		Total	% of Completed PR	Disproportionate Impact
	Yes	No			
African American/Black	-	-	-	-	N/A
American Indian/Alaskan Native	-	-	-	-	N/A
Asian	3	2	5	60%	No
Hispanic/Latino	3	10	13	23%	Sample too small
Native Hawaiian/Pacific Islander	-	-	-	-	N/A
Two or More	1	5	6	17%	Sample too small
Unknown/No Response	2	4	6	33%	Sample too small
White	-	-	-	-	N/A
Total	9	21	30		

*Chi-square=.058, df=1, p=.81 (not significant at p<.05)*

**Table 5. Disproportionate Impact by DSPTS**

Disability	Completed PR		Total	% of Completed PR	Disproportionate Impact
	Yes	No			
Yes	-	1	1	-	N/A
No	9	20	29	31%	No
Total	9	21	30		

*Chi-square=1.454, df=1, p=.23 (not significant at p<.05)*

**Table 6. Disproportionate Impact by Gender**

Gender	Completed PR		Total	% of Completed PR	Disproportionate Impact
	Yes	No			
Male	4	11	15	27%	No
Female	5	10	15	33%	No
Unknown	-	-	-	-	N/A
Total	9	21	30		

*Chi-square=1.944, df=1, p=.16 (not significant at  $p<.05$ )*

## **Results on Disproportionate Impact**

Tables 3 to 6 in the previous pages identify the disproportionate impact when the PR is taken before PHIL 130.

Chi-square tests indicated no statistical differences between groups by age group, ethnicity, disability, and/or gender; therefore, no observed disproportionate impact exists by age group, ethnicity, disability, and/or gender.

## **Recommendation**

Due to the lack of prerequisite outcome data, there was no significant statistical difference in success. However, based on the high success outcome data for PHIL 130, students are largely successful without the prerequisite course. It is recommended that faculty identify and examine the competency they believe the students need in order to be successful in the course, and determine how it can be met upon course entry. Again, being mindful that the vast majority of the students are successful in the course without the prerequisite.

# PHIL 140 – History of Modern Philosophy

Two measures were examined between prerequisite completers and non-completers:

1. Course Grade Averages in PHIL 140
2. Success rate in PHIL 140

Following is the summary of the results.

## Course Grade Averages in PHIL 140

**Table 1. Grades in PHIL 140**

	Successful Completion of PR	Did Not Successfully Complete PR
A	1	10
B	9	14
C	1	-
D	-	2
F	2	-
W	-	1
<b>Total</b>	<b>13</b>	<b>27</b>
Course Grade Average	2.15	3.00
T-Value	2.00	
Sig (P-Value)	.05	
Cohen's <i>d</i>	0.31	

To determine if student's course grade average in PHIL 140 is significantly different by the two groups, a t-test of independent groups was performed. Data indicates that students who successfully completed a PR had a statistically significantly lower course grade average in PHIL 140 than those who did not complete the PR ( $p = 0.05$ ). The effect size was .31, indicating a low / mild practical impact on success if students successfully completed a prerequisite prior to enrolling in PHIL 140.

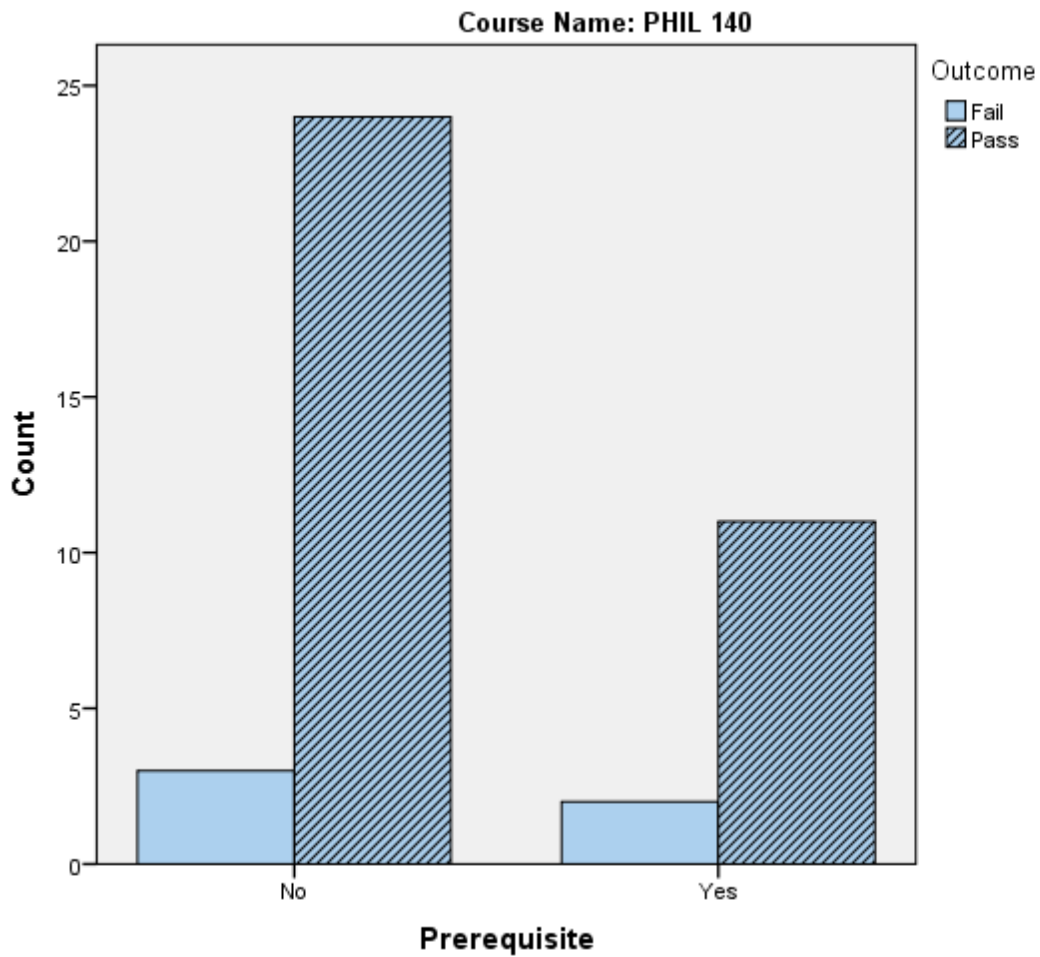
**Table 2. Success Rate in PHIL 140**

	Completed PR		Total
	Yes	No	
<b>Pass</b>	11	24	35
<b>Fail</b>	2	3	5
	13	27	40
<b>Success Rate</b>	85%	89%	88%

*Chi-Square = .147, df = 1, p = .70*

To determine if student's success rate in PHIL 140 is significantly different by the two groups, a chi-square test was performed. Data shows that students who successfully completed the PR had slightly lower success rate (85%) in PHIL 140 than students who did not successfully complete the PR (89%). However, results were not statistically significant ( $p = .70$ ).

**Figure 1**



### **Disproportionate Impact Analysis**

To examine whether a disproportionate impact existed, data were generated for prerequisite course/target course combination. The last column in the following tables ("Disproportionate Impact") identify whether a disproportionate impact was observed ("Yes" if disproportionate impact was observed).

**Table 3. Disproportionate Impact by Age Group**

Age	Completed PR		Total	% of Completed PR	Disproportionate Impact
	Yes	No			
19 or Younger	2	8	10	20%	Yes
20-24	8	8	16	50%	No
25-29	1	6	7	14%	Sample too small
30-34	-	2	2	-	N/A
35-39	-	-	-	-	-
40-49	-	-	-	-	-
50+	-	-	-	-	-
Total	11	24	35		

*Chi-square=4.800, df=1, p=.03 (significant at p<.05)*

**Table 4. Disproportionate Impact by Ethnicity**

Ethnicity	Completed PR		Total	% of Completed PR	Disproportionate Impact
	Yes	No			
African American/Black	1	3	4	25%	Sample too small
American Indian/Alaskan Native	1	1	2	50%	Sample too small
Asian	2	4	6	33%	Sample too small
Hispanic/Latino	6	12	18	33%	No
Native Hawaiian/Pacific Islander	-	-	-	-	N/A
Two or More	-	2	2	-	N/A
Unknown/No Response	1	1	2	50%	Sample too small
White	-	1	1	-	N/A
Total	11	24	35		

*Chi-square=1.212, df=1, p=.27 (not significant at p<.05)*

**Table 5. Disproportionate Impact by DSPTS**

Disability	Completed PR		Total	% of Completed PR	Disproportionate Impact
	Yes	No			
Yes	-	-	-	-	N/A
No	11	24	35	31%	No
Total	11	24	35		

*Chi-square=.557, df=1, p=.46 (not significant at p<.05)*

**Table 6. Disproportionate Impact by Gender**

Gender	Completed PR		Total	% of Completed PR	Disproportionate Impact
	Yes	No			
Male	5	16	21	24%	No
Female	6	7	13	46%	No
Unknown	-	1	-		N/A
Total	11	24	35		

*Chi-square=1.077, df=1, p=.30 (not significant at  $p<.05$ )*

## Results on Disproportionate Impact

Tables 3 to 6 in the previous pages identify the disproportionate impact when the PR is taken before PHIL 140.

Chi-square tests revealed there is a significant difference between age groups. Overall, 85% of students who enter PHIL 140 successfully complete the prerequisite. However, 20% of students aged 19 or younger who entered PHIL 140, successfully completed the prerequisite. When applying the 80% rule,  $20\% \times 80\% = 16\%$ . According to Glasnapp and Poggio's (2001) 80% rule, any group which falls below 39% indicates a disproportionate impact. Table 4 shows that three age groups fell below 39%, However, only the '19 OR younger' group yielded statistical significance ( $p = .03$ ) at significance level  $p < .05$ . This finding represents an observed disproportionate impact by age.

Chi-square tests indicated no statistical differences between groups by ethnicity, gender, and/or disability; therefore, no observed disproportionate impact exists by ethnicity, gender, and/or disability.

## Recommendation

The data indicates that the prerequisite is not necessary: Students are largely successful without the prerequisite course. It is recommended that faculty identify and examine the competency they believe the students need in order to be successful in the course, and determine how it can be met upon course entry. Again, being mindful that the vast majority of the students are successful in the course without the prerequisite.

# PHIL 160 – Symbolic Logic

Two measures were examined between prerequisite completers and non-completers:

1. Course Grade Averages in PHIL 160
2. Success rate in PHIL 160

Following is the summary of the results.

## Course Grade Averages in PHIL 160

**Table 1. Grades in PHIL 160**

	Successful Completion of PR	Did Not Successfully Complete PR
A	3	3
B	2	1
C	-	1
D	1	-
F	-	1
W	2	3
<b>Total</b>	<b>8</b>	<b>9</b>
Course Grade Average	1.75	1.33
T-Value	.557	
Sig (P-Value)	.59	
Cohen's <i>d</i>	0.14	

To determine if student's course grade average in PHIL 160 is significantly different by the two groups, a t-test of independent groups was performed. Data indicates that students who successfully completed a PR had a higher course grade average in PHIL 160 than those who did not complete the PR ( $p = 0.59$ ). The effect size was .14, indicating a low / mild practical impact on success if students successfully completed a prerequisite prior to enrolling in PHIL 170.

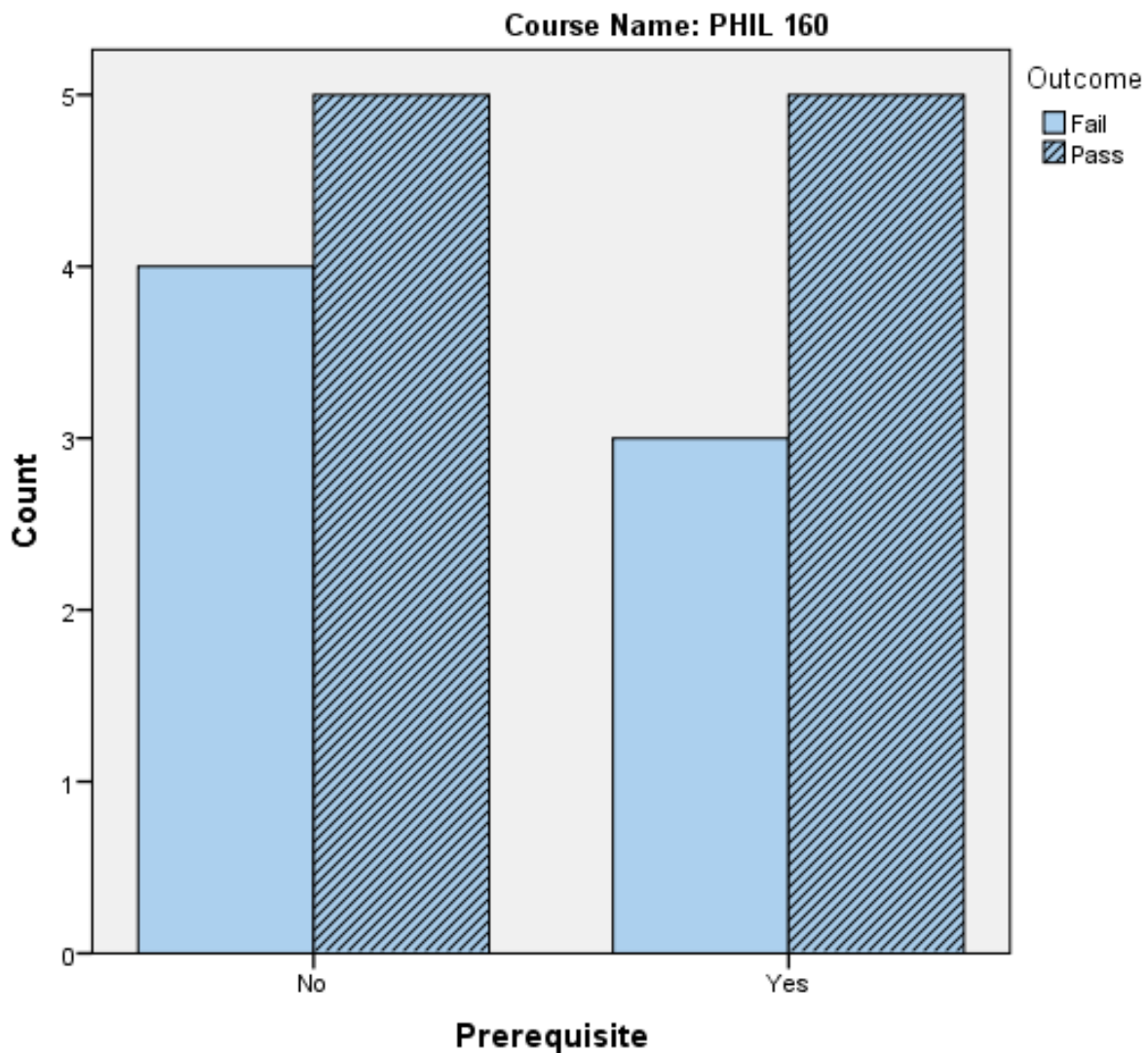
**Table 2. Success Rate in PHIL 160**

	Completed PR		Total
	Yes	No	
<b>Pass</b>	5	5	10
<b>Fail</b>	3	4	7
	8	9	17
<b>Success Rate</b>	63%	56%	59%

*Chi-Square = .084, df = 1, p = .77*

To determine if student's success rate in PHIL 160 is significantly different by the two groups, a chi-square test was performed. Data shows that students who successfully completed the PR had higher success rate (63%) in PHIL 160 than students who did not successfully complete the PR (56%). However, results were not statistically significant ( $p = .77$ ).

**Figure 1**



### **Disproportionate Impact Analysis**

To examine whether a disproportionate impact existed, data were generated for prerequisite course/target course combination. The last column in the following tables ("Disproportionate Impact") identify whether a disproportionate impact was observed ("Yes" if disproportionate impact was observed).



**Table 3. Disproportionate Impact by Age Group**

Age	Completed PR		Total	% of Completed PR	Disproportionate Impact
	Yes	No			
19 or Younger	1	1	2	50%	No
20-24	4	3	7	57%	No
25-29	-	1	1	-	N/A
30-34	-	-	-	-	N/A
35-39	-	-	-	-	N/A
40-49	-	-	-	-	N/A
50+	-	-	-	-	N/A
Total	5	5	10		

*Chi-square=.010, df=1, p=.92 (not significant at p<.05)*

**Table 4. Disproportionate Impact by Ethnicity**

Ethnicity	Completed PR		Total	% of Completed PR	Disproportionate Impact
	Yes	No			
African American/Black	-	-	-	-	-
American Indian/Alaskan Native	-	-	-	-	-
Asian	-	1	1	-	N/A
Hispanic/Latino	4	2	6	67%	No
Native Hawaiian/Pacific Islander	-	-	-	-	-
Two or More	-	1	1	-	N/A
Unknown/No Response	-	-	-	-	-
White	1	1	2	50%	No
Total	5	5	10		

*Chi-square=.000 df=1, p=1.00 (not significant at p<.05)*

**Table 5. Disproportionate Impact by DSPTS**

Disability	Completed PR		Total	% of Completed PR	Disproportionate Impact
	Yes	No			
Yes	-	-	-	-	-
No	5	5	10	50%	No
Total	5	5	10		

*Chi-square=.084, df=1, p=.77 (not significant at p<.05)*

**Table 6. Disproportionate Impact by Gender**

Gender	Completed PR		Total	% of Completed PR	Disproportionate Impact
	Yes	No			
Male	3	2	5	60%	No
Female	2	2	4	50%	No
Unknown	-	1	1	1	-
Total	5	5	10		

*Chi-square=.110, df=1, p=.74 (not significant at  $p<.05$ )*

## **Results on Disproportionate Impact**

Tables 3 to 6 in the previous pages identify the disproportionate impact when the PR is taken before PHIL 160.

Chi-square tests indicated no statistical differences between groups by age, ethnicity, gender, and/or disability; therefore, no observed disproportionate impact exists by age, ethnicity, gender, and/or disability.

## **Recommendation**

Due to the outcome not having significant statistical difference in success, faculty should assess whether the prerequisite for PHIL 140 is necessary.

# PHIL 201 – Contemporary Philosophy

Two measures were examined between prerequisite completers and non-completers:

1. Course Grade Averages in PHIL 201
2. Success rate in PHIL 201

Following is the summary of the results.

## Course Grade Averages in PHIL 201

**Table 1. Grades in PHIL 201**

	<b>Did Not Successfully Complete PR</b>
A	120
B	24
C	3
D	5
F	8
P	1
W	13
Total	174
Course Grade Average	2.29

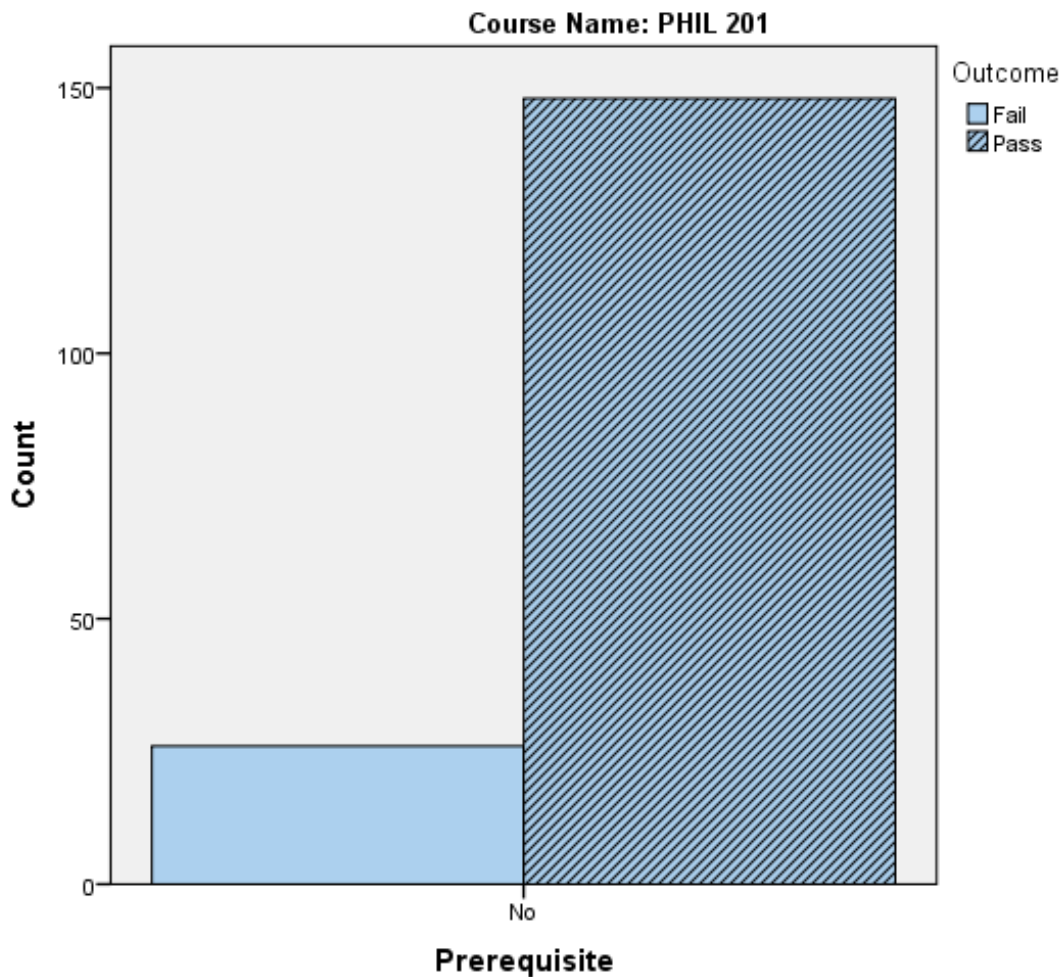
A difference in course grade average could not be determined for PHIL 201, because students have not taken a prerequisite course for PHIL 201. Data indicates that the course grade average for students who did not successfully complete the PR prior to taking PHIL 201 was  $n = 2.29$ .

**Table 2. Success Rate in PHIL 201**

	<b>Total</b>
<b>Pass</b>	148
<b>Fail</b>	26
	174
<b>Success Rate</b>	84%

A difference in student's success rate could not be determined for PHIL 201, because students have not taken the prerequisite course prior to taking PHIL 201. Data indicates that the success rate for students who did not successfully complete PR prior to taking PHIL 201 was 84%.

**Figure 1**



### **Disproportionate Impact Analysis**

The disproportionate impact for PHIL 201 could not be determined. No one took the prerequisite course prior to taking PHIL 201. However, the descriptive statistics are recorded.

### **Recommendation**

Due to the lack of prerequisite outcome data, statistical difference in success was not calculated. However, based on the high success outcome data for the PHIL 201, students are largely successful without the prerequisite course. It is recommended that faculty identify and examine the competency they believe the students need in order to be successful in the course, and determine how it can be met upon course entry. Again, being mindful that the vast majority of the students are successful in the course without the prerequisite.

# PHIL 203 – Philosophy of Religion

Two measures were examined between prerequisite completers and non-completers:

1. Course Grade Averages in PHIL 203
2. Success rate in PHIL 203

Following is the summary of the results.

## Course Grade Averages in PHIL 203

**Table 1. Grades in PHIL 203**

	Successful Completion of PR	Did Not Successfully Complete PR
A	25	53
B	26	54
C	6	16
D		2
F	5	9
W	5	15
<b>Total</b>	<b>67</b>	<b>149</b>
Course Grade Average	2.54	2.23
T-Value	1.388	
Sig (P-Value)	.17	
Cohen's <i>d</i>	.10	

To determine if student's course grade average in PHIL 203 is significantly different by the two groups, a t-test of independent groups was performed. Data indicates that students who successfully completed a PR had a higher course grade average in PHIL 203 as those who did not complete the PR ( $p = 0.17$ ). The effect size was .10 indicating a low practical impact on success if students successfully completed a prerequisite prior to enrolling in PHIL 203.

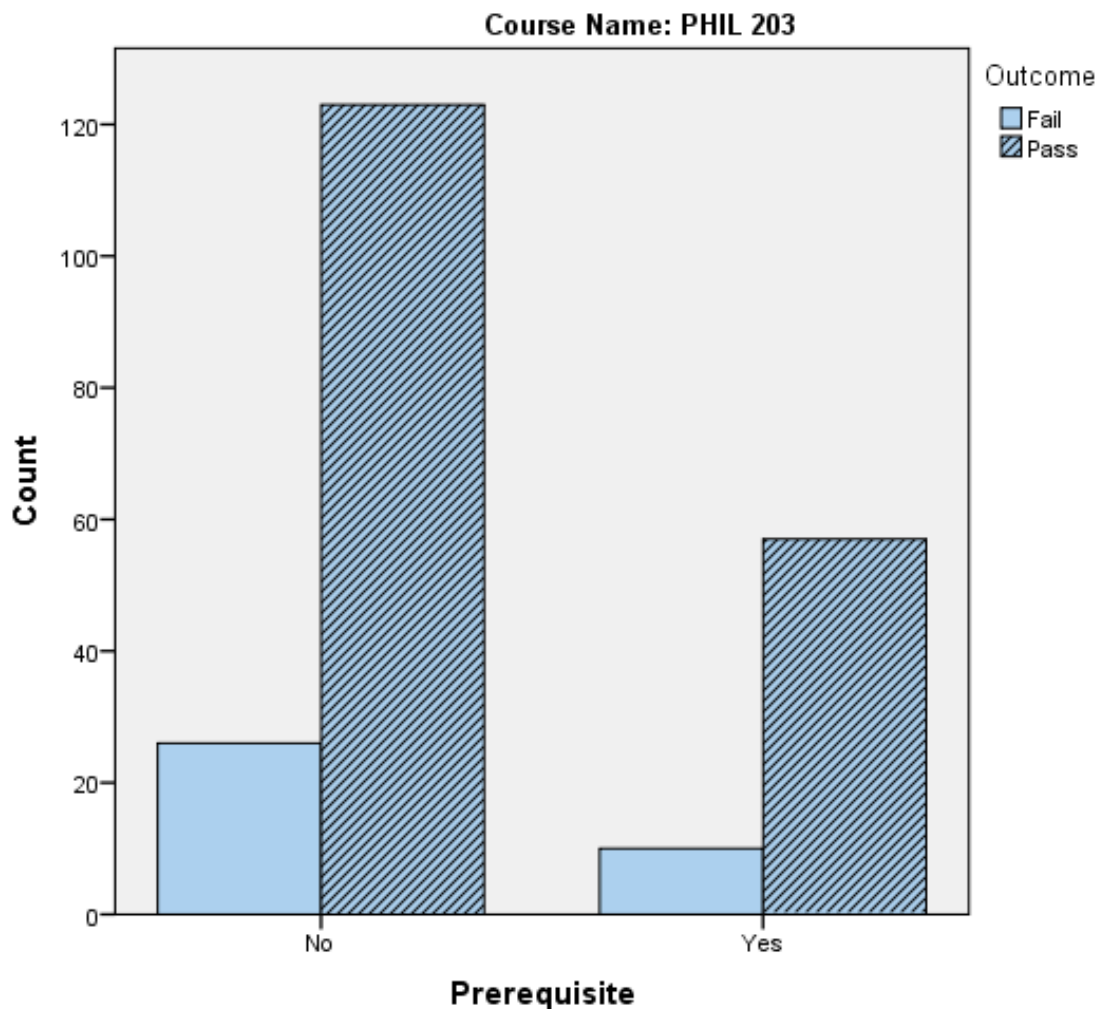
**Table 2. Success Rate in PHIL 203**

	Completed PR		Total
	Yes	No	
<b>Pass</b>	57	123	180
<b>Fail</b>	10	26	36
	67	149	216
<b>Success Rate</b>	85%	83%	83%

*Chi-Square = .212, df = 1, p = .65*

To determine if student's success rate in PHIL 203 is significantly different by the two groups, a chi-square test was performed. Data shows that students who successfully completed the PR had a slightly higher success rate (85%) in PHIL 203 than students who did not successfully complete the PR (83%). However, results were not statistically significant ( $p = .65$ ).

**Figure 1**



### Disproportionate Impact Analysis

To examine whether a disproportionate impact existed, data were generated for prerequisite course/target course combination. The last column in the following tables ("Disproportionate Impact") identify whether a disproportionate impact was observed ("Yes" if disproportionate impact was observed).

**Table 3. Disproportionate Impact by Age Group**

Age	Completed PR		Total	% of Completed PR	Disproportionate Impact
	Yes	No			
19 or Younger	13	25	38	34%	No
20-24	35	65	100	35%	No
25-29	6	20	26	23%	No
30-34	-	6	6	-	N/A
35-39	1	1	2	50%	Sample too small
40-49	2	6	8	25%	Sample too small
50+	-	-	-	-	N/A
Total	57	123	180		

*Chi-square=1.582, df=1, p=.21 (not significant at p<.05)*

**Table 4. Disproportionate Impact by Ethnicity**

Ethnicity	Completed PR		Total	% of Completed PR	Disproportionate Impact
	Yes	No			
African American/Black	2	8	10	20%	No
American Indian/Alaskan Native	3	3	6	50%	No
Asian	4	10	14	40%	No
Hispanic/Latino	27	61	88	31%	No
Native Hawaiian/Pacific Islander	1	1	2	50%	No
Two or More	12	26	38	32%	No
Unknown/No Response	5	5	10	50%	No
White	3	9	12	25%	No
Total	57	123	180		

*Chi-square=.005, df=1, p=.94 (not significant at p<.05)*

**Table 5. Disproportionate Impact by DSPTS**

Disability	Completed PR		Total	% of Completed PR	Disproportionate Impact
	Yes	No			
Yes	2	2	4	50%	No
No	55	121	176	31%	No
Total	57	123	180		

*Chi-square=.045, df=1, p=.83 (not significant at p<.05)*

**Table 6. Disproportionate Impact by Gender**

Gender	Completed PR		Total	% of Completed PR	Disproportionate Impact
	Yes	No			
Male	33	67	100	33%	No
Female	23	53	76	30%	No
Unknown	1	3	4	25%	No
Total	57	123	180		

*Chi-square=.191, df=1, p=.66 (not significant at  $p<.05$ )*

## **Results on Disproportionate Impact**

Tables 3 to 6 in the previous pages identify the disproportionate impact when the PR is taken before PHIL 203.

Chi-square tests indicated no statistical differences between groups by ethnicity, age, gender, and/or disability; therefore, no observed disproportionate impact exists by ethnicity, age, gender, and/or disability.

## **Recommendation**

Due to the lack of prerequisite outcome data, there was no significant statistical difference in success. However, based on the high success outcome data for PHIL 203, students are largely successful without the prerequisite course. It is recommended that faculty identify and examine the competency they believe the students need in order to be successful in the course, and determine how it can be met upon course entry. Again, being mindful that the vast majority of the students are successful in the course without the prerequisite.



# PHIL 204 – Philosophy of the Bible I (Hebrew Scriptures)

Two measures were examined between prerequisite completers and non-completers:

1. Course Grade Averages in PHIL 204
2. Success rate in PHIL 204

Following is the summary of the results.

## Course Grade Averages in PHIL 204

**Table 1. Grades in PHIL 204**

	<b>Did Not Successfully Complete PR</b>
A	55
B	62
C	25
D	3
F	6
W	12
<b>Total</b>	<b>163</b>
<b>Course Grade Average</b>	<b>2.43</b>

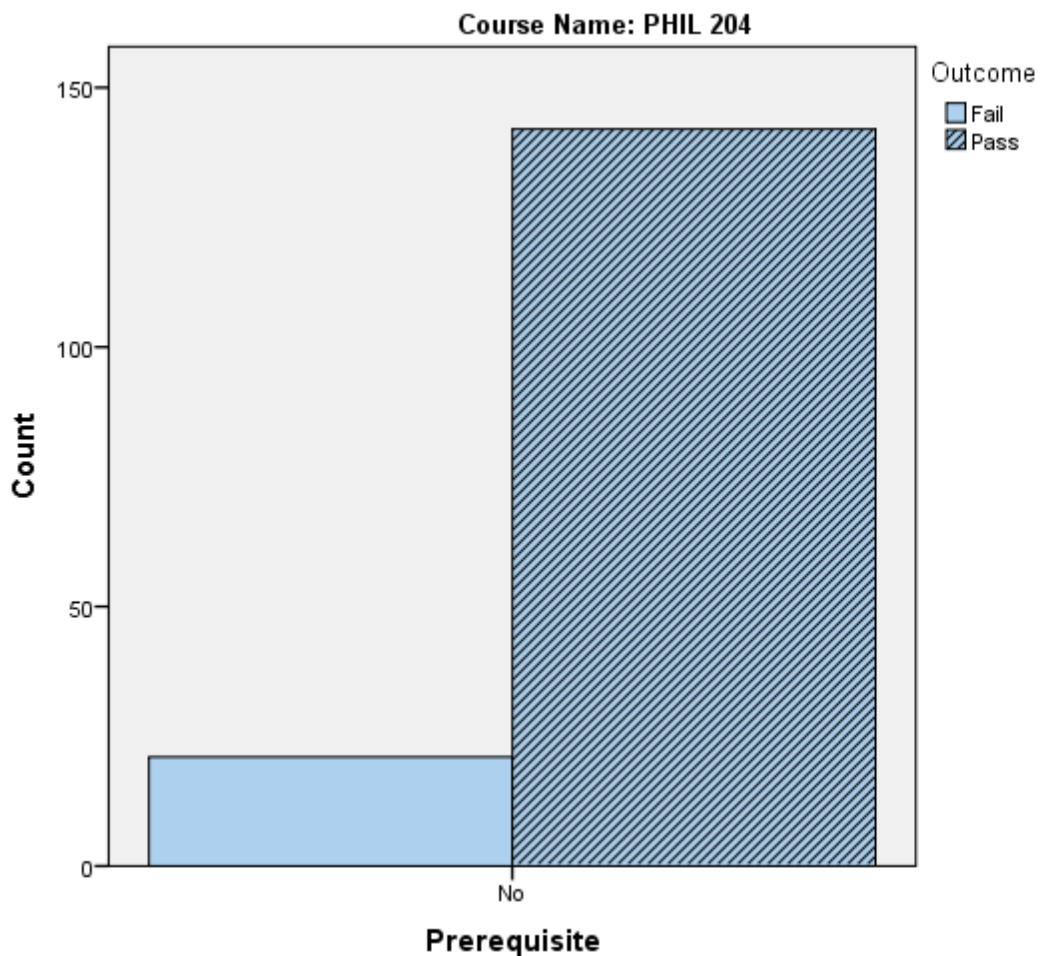
A difference in course grade average could not be determined for PHIL 204, because students have not taken a prerequisite course for PHIL 204. Data indicates that the course grade average for students who did not successfully complete the PR prior to taking PHIL 204 was  $n = 2.43$ .

**Table 2. Success Rate in PHIL 204**

	<b>Total</b>
<b>Pass</b>	142
<b>Fail</b>	21
	163
<b>Success Rate</b>	87%

A difference in student's success rate could not be determined for PHIL 204, because students have not taken the prerequisite course prior to taking PHIL 204. Data indicates that the success rate for students who did not successfully complete PR prior to taking PHIL 204 was 87%.

**Figure 1**



### **Disproportionate Impact Analysis**

The disproportionate impact for PHIL 204 could not be determined. No one took the prerequisite course prior to taking PHIL 204. However, the descriptive statistics are recorded.

### **Recommendation**

Due to the lack of prerequisite outcome data, statistical difference in success was not calculated. However, based on the high success outcome data for the PHIL 204, students are largely successful without the prerequisite course. It is recommended that faculty identify and examine the competency they believe the students need in order to be successful in the course, and determine how it can be met upon course entry. Again, being mindful that the vast majority of the students are successful in the course without the prerequisite.

# PHIL 205 – Introduction to Bioethics

Two measures were examined between prerequisite completers and non-completers:

1. Course Grade Averages in PHIL 205
2. Success rate in PHIL 205

Following is the summary of the results.

## Course Grade Averages in PHIL 205

**Table 1. Grades in PHIL 205**

	Successful Completion of PR	Did Not Successfully Complete PR
A	1	11
B	4	10
C	2	18
D	-	-
F	1	9
W	5	17
<b>Total</b>	<b>13</b>	<b>65</b>
<b>Course Grade Average</b>	<b>2.46</b>	<b>2.14</b>
<b>T-Value</b>	<b>.917</b>	
<b>Sig (P-Value)</b>	<b>.37</b>	
<b>Cohen's <i>d</i></b>	<b>.12</b>	

To determine if student's course grade average in PHIL 205 is significantly different by the two groups, a t-test of independent groups was performed. Data indicates that students who successfully completed a PR had a higher course grade average in PHIL 205 than those who did not complete the PR ( $p = 0.37$ ). The effect size was .12 indicating a low practical impact on success if students successfully completed a prerequisite prior to enrolling in PHIL 205.

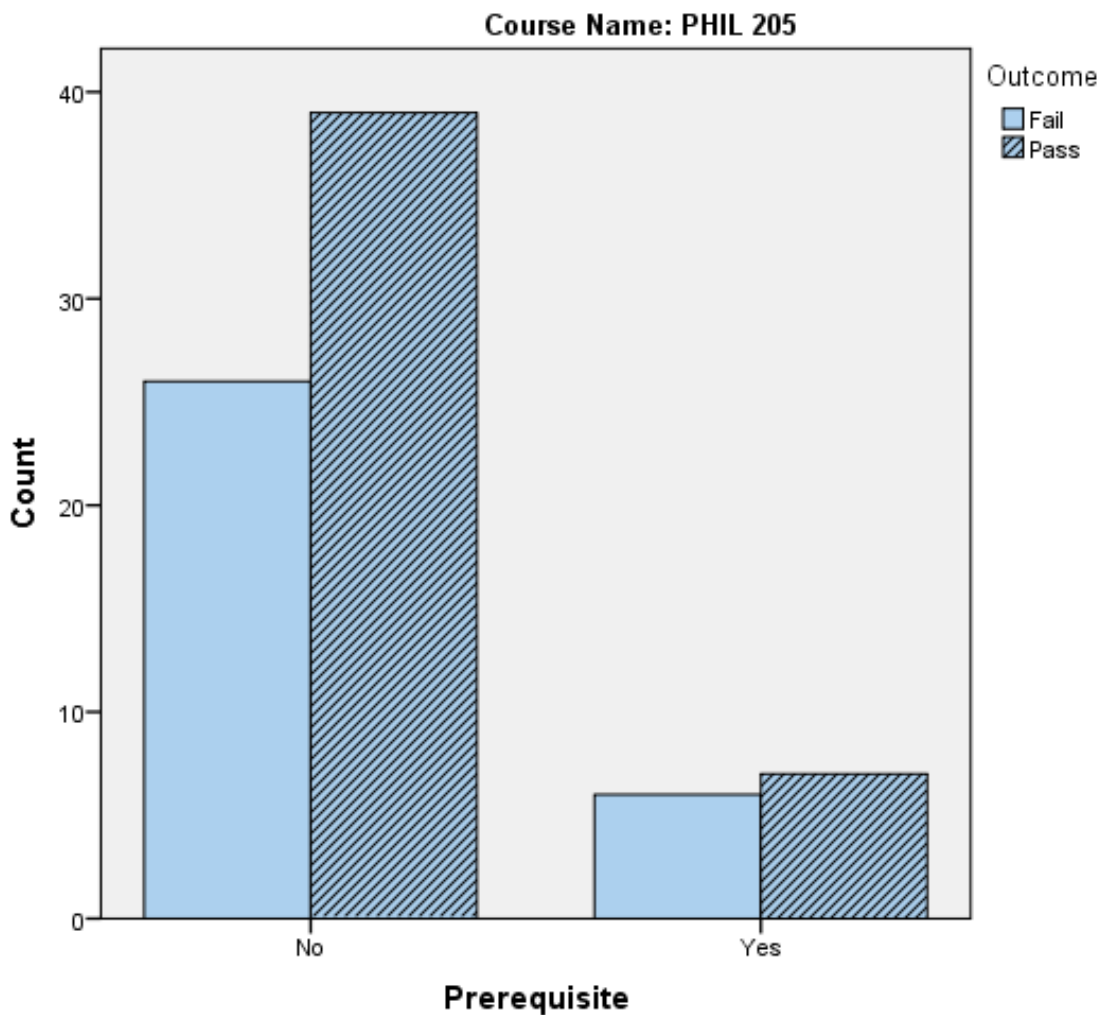
**Table 2. Success Rate in PHIL 205**

	Completed PR		Total
	Yes	No	
<b>Pass</b>	7	39	46
<b>Fail</b>	6	26	32
	13	65	78
<b>Success Rate</b>	54%	60%	59%

*Chi-Square = .170, df = 1, p = .68*

To determine if student's success rate in PHIL 205 is significantly different by the two groups, a chi-square test was performed. Data shows that students who successfully completed the PR had a lower success rate (54%) in PHIL 205 than students who did not successfully complete the PR (60%). However, results were not statistically significant ( $p = .68$ ).

**Figure 1**



### Disproportionate Impact Analysis

To examine whether a disproportionate impact existed, data were generated for prerequisite course/target course combination. The last column in the following tables ("Disproportionate Impact") identify whether a disproportionate impact was observed ("Yes" if disproportionate impact was observed).

**Table 3. Disproportionate Impact by Age Group**

Age	Completed PR		Total	% of Completed PR	Disproportionate Impact
	Yes	No			
19 or Younger	1	5	6	17%	No
20-24	6	16	22	27%	No
25-29	-	12	12	-	N/A
30-34	-	4	4	-	N/A
35-39	-	-	-	-	N/A
40-49	-	-	-	-	N/A
50+	-	2	2	-	N/A
Total	7	39	46		

*Chi-square=.025, df=1, p=.88 (not significant at p<.05)*

**Table 4. Disproportionate Impact by Ethnicity**

Ethnicity	Completed PR		Total	% of Completed PR	Disproportionate Impact
	Yes	No			
African American/Black	-	4	4	-	N/A
American Indian/Alaskan Native	-	-	-	-	N/A
Asian	2	4	6	33%	No
Hispanic/Latino	2	16	18	11%	No
Native Hawaiian/Pacific Islander	-	-	-	-	N/A
Two or More	1	7	8	13%	No
Unknown/No Response	1	3	4	25%	No
White	1	5	6	17%	No
Total	7	39	46		

*Chi-square=.062, df=1, p=.80 (not significant at p<.05)*

**Table 5. Disproportionate Impact by DSPS**

Disability	Completed PR		Total	% of Completed PR	Disproportionate Impact
	Yes	No			
Yes	-	-	-	-	N/A
No	7	39	46	15%	No
Total	7	39	46		

*Chi-square=.170, df=1, p=.68 (not significant at p<.05)*

**Table 6. Disproportionate Impact by Gender**

Gender	Completed PR		Total	% of Completed PR	Disproportionate Impact
	Yes	No			
Male	1	21	22	5%	No
Female	6	18	24	25%	No
Total	1	539	46		

*Chi-square=.971, df=1, p=.32 (not significant at  $p < .05$ )*

## **Results on Disproportionate Impact**

Tables 3 to 6 in the previous pages identify the disproportionate impact when the PR is taken before PHIL 205.

Chi-square tests indicated no statistical differences between groups by ethnicity, age, gender, and/or disability; therefore, no observed disproportionate impact exists by ethnicity, age, gender, and/or disability.

## **Recommendation**

Due to the lack of prerequisite outcome data, there was no significant statistical difference in success. However, based on the high success outcome data for PHIL 205, students are largely successful without the prerequisite course. It is recommended that faculty identify and examine the competency they believe the students need in order to be successful in the course, and determine how it can be met upon course entry. Again, being mindful that the vast majority of the students are successful in the course without the prerequisite.

# PHIL 206 – Philosophy of the Bible II (Christian Scriptures)

Two measures were examined between prerequisite completers and non-completers:

1. Course Grade Averages in PHIL 206
2. Success rate in PHIL 206

Following is the summary of the results.

## Course Grade Averages in PHIL 206

**Table 1. Grades in PHIL 206**

	Successful Completion of PR	Did Not Successfully Complete PR
A	1	102
B	3	59
C	1	16
D	-	4
F	-	11
W	-	22
<b>Total</b>	<b>5</b>	<b>214</b>
<b>Course Grade Average</b>	<b>3.0</b>	<b>2.11</b>
<b>T-Value</b>	<b>8.519</b>	
<b>Sig (P-Value)</b>	<b>6.338</b>	
<b>Cohen's <i>d</i></b>	<b>.37</b>	

To determine if student's course grade average in PHIL 206 is significantly different by the two groups, a t-test of independent groups was performed. Data indicates that students who successfully completed a PR had a slightly higher course grade average in PHIL 206 than those who did not complete the PR ( $p = 6.34$ ). The effect size was .37, indicating a low/mild practical impact on success if students successfully completed a prerequisite prior to enrolling in PHIL 206.

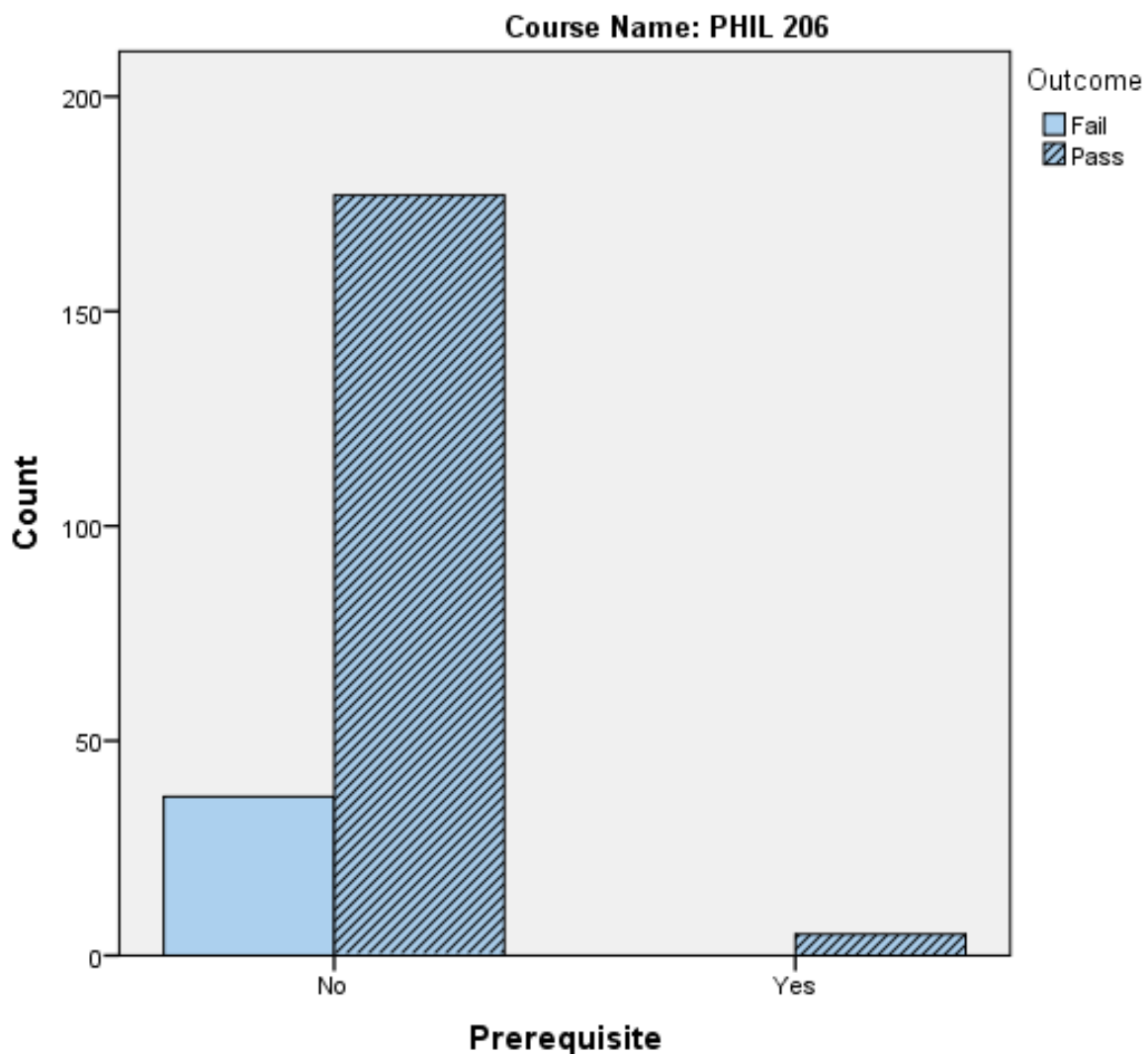
**Table 2. Success Rate in PHIL 206**

	Completed PR		Total
	Yes	No	
<b>Pass</b>	5	177	182
<b>Fail</b>	-	37	37
	5	214	219
<b>Success Rate</b>	100%	83%	83%

*Chi-Square = 1.040, df = 1, p = .31*

To determine if student's success rate in PHIL 206 is significantly different by the two groups, a chi-square test was performed. Data shows that students who successfully completed the PR had a higher success rate (100%) in PHIL 206 than students who did not successfully complete the PR (83%). However, results were not statistically significant ( $p = .31$ ).

**Figure 1**



### **Disproportionate Impact Analysis**

To examine whether a disproportionate impact existed, data were generated for prerequisite course/target course combination. The last column in the following tables ("Disproportionate Impact") identify whether a disproportionate impact was observed ("Yes" if disproportionate impact was observed).



**Table 3. Disproportionate Impact by Age Group**

Age	Completed PR		Total	% of Completed PR	Disproportionate Impact
	Yes	No			
19 or Younger	4	75	79	5%	No
20-24	1	64	65	2%	No
25-29	-	19	19	-	N/A
30-34	-	8	8	-	N/A
35-39	-	3	3	-	N/A
40-49	-	7	7	-	N/A
50+	-	1	1	-	N/A
Total	5	177	182		

*Chi-square=.583, df=1, p=.45 (not significant at p<.05)*

**Table 4. Disproportionate Impact by Ethnicity**

Ethnicity	Completed PR		Total	% of Completed PR	Disproportionate Impact
	Yes	No			
African American/Black	-	7	7	-	N/A
American Indian/Alaskan Native	-	5	5	-	N/A
Asian	1	28	29	3%	Sample too small
Hispanic/Latino	2	86	88	2%	No
Native Hawaiian/Pacific Islander	-	1	1	-	N/A
Two or More	1	26	27	4%	Sample too small
Unknown/No Response	-	15	15	-	N/A
White	1	9	10	10%	Sample too small
Total	5	177	182		

*Chi-square=.394, df=1, p=.53 (not significant at p<.05)*

**Table 5. Disproportionate Impact by DSPTS**

Disability	Completed PR		Total	% of Completed PR	Disproportionate Impact
	Yes	No			
Yes	-	4	4	-	N/A
No	5	173	178	3%	No
Total	5	177	182		

*Chi-square=1.064, df=1, p=.30 (not significant at p<.05)*

**Table 6. Disproportionate Impact by Gender**

Gender	Completed PR		Total	% of Completed PR	Disproportionate Impact
	Yes	No			
Male	3	85	88	3%	No
Female	2	90	92	2%	No
Unknown	-	2	2	-	N/A
Total	5	177	182		

*Chi-square=.806, df=1, p=.37 (not significant at  $p<.05$ )*

## **Results on Disproportionate Impact**

Tables 3 to 6 in the previous pages identify the disproportionate impact when the PR is taken before PHIL 206.

Chi-square tests indicated no statistical differences between groups by age group, ethnicity, disability, and/or gender; therefore, no observed disproportionate impact exists by age group, ethnicity, disability, and/or gender.

## **Recommendation**

Due to the lack of prerequisite outcome data, there was no significant statistical difference in success. However, based on the high success outcome data for PHIL 206, students are largely successful without the prerequisite course. It is recommended that faculty identify and examine the competency they believe the students need in order to be successful in the course, and determine how it can be met upon course entry. Again, being mindful that the vast majority of the students are successful in the course without the prerequisite.

# PSYC 101 – General Introductory Psychology

Two measures were examined between prerequisite completers and non-completers:

1. Course Grade Averages in PSYC 101
2. Success rate in PSYC 101

Following is the summary of the results.

## Course Grade Averages in PSYC 101

**Table 1. Grades in PSYC 101**

	Successful Completion of PR	Did Not Successfully Complete PR
A	762	2521
B	1141	2533
C	1158	2123
D	392	716
F	487	1195
P	-	1
W	454	1278
<b>Total</b>	<b>4394</b>	<b>10368</b>
Course Grade Average	2.24	2.30
T-Value	2.113	
Sig (P-Value)	.035	
Cohen's <i>d</i>	0.02	

To determine if student's course grade average in PSYC 101 is significantly different by the two groups, a t-test of independent groups was performed. Data indicates that students who successfully completed a PR had a slightly lower course grade average in PSYC 101 than those who did not complete the PR ( $p = .04$ ). The effect size was .02, indicating a low practical impact on success if students successfully completed a prerequisite prior to enrolling in PSYC 101.

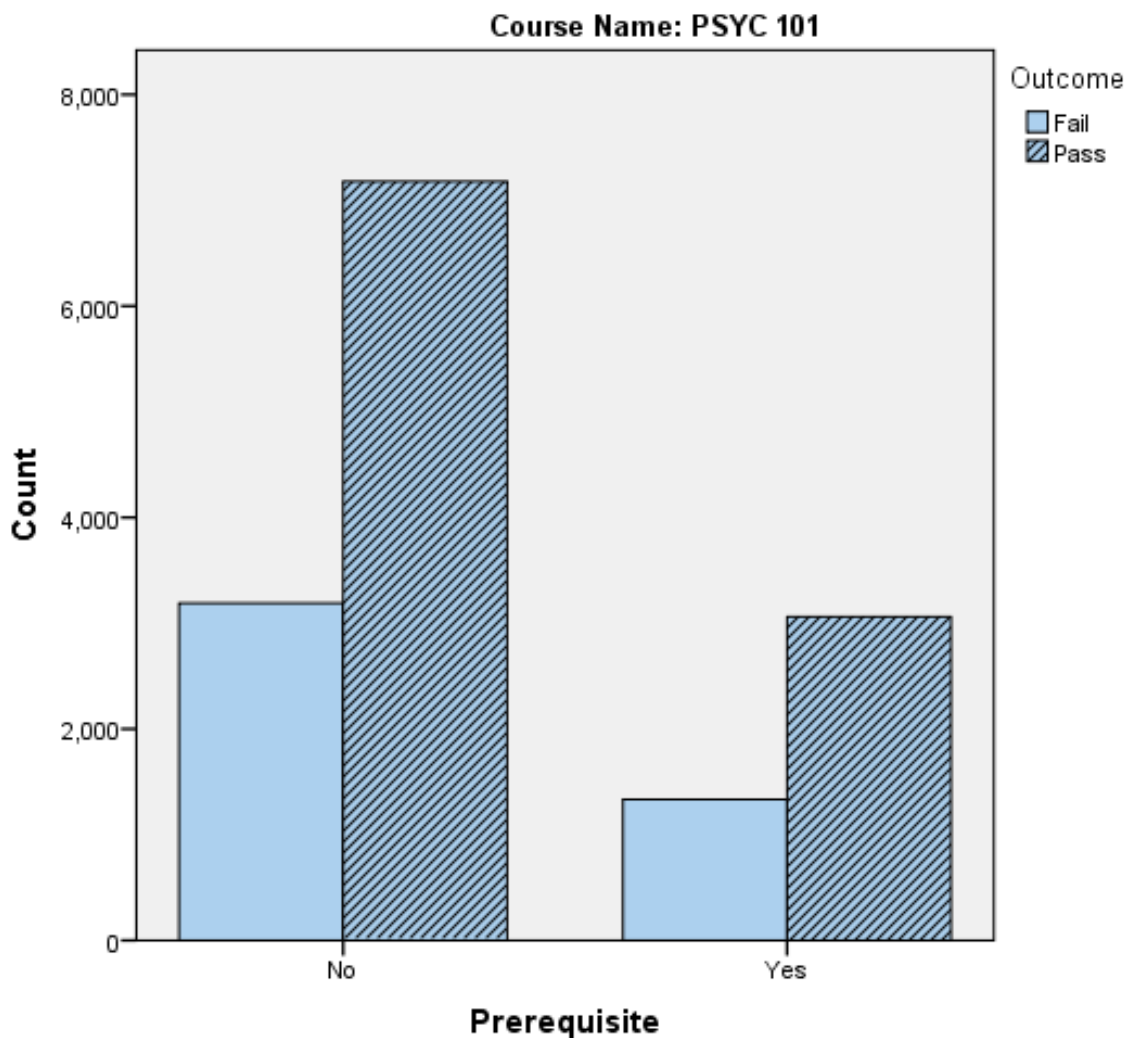
**Table 2. Success Rate in PSYC 101**

	Completed PR		Total
	Yes	No	
<b>Pass</b>	3061	7178	10239
<b>Fail</b>	1333	3190	4523
	4394	10239	14762
<b>Success Rate</b>	70%	70%	69%

*Chi-Square = .270, df = 1, p = .60*

To determine if student's success rate in PSYC 101 is significantly different by the two groups, a chi-square test was performed. Data shows that students who successfully completed the PR had equivalent success rate (70%) in PSYC 101 with students who did not successfully complete the prerequisite. However, results were not statistically significant ( $p = .60$ ).

**Figure 1**



### **Disproportionate Impact Analysis**

To examine whether a disproportionate impact existed, data were generated for prerequisite course/target course combination. The last column in the following tables (“Disproportionate Impact”) identify whether a disproportionate impact was observed (“Yes” if disproportionate impact was observed).

**Table 3. Disproportionate Impact by Age Group**

Age	Completed PR		Total	% of Completed PR	Disproportionate Impact
	Yes	No			
19 or Younger	976	2921	3897	25%	No
20-24	1544	2894	4438	35%	Yes
25-29	293	702	995	29%	No
30-34	122	263	385	32%	No
35-39	45	168	213	21%	Yes
40-49	57	166	223	26%	No
50+	3	530	533	1%	Sample too small
Total	3061	7178	10239		

*Chi-square=6.781, df=1, p=.01 (significant at p<.05)*

**Table 4. Disproportionate Impact by Ethnicity**

Ethnicity	Completed PR		Total	% of Completed PR	Disproportionate Impact
	Yes	No			
African American/Black	143	307	450	32%	No
American Indian/Alaskan Native	69	159	228	30%	No
Asian	297	929	1226	24%	Yes
Hispanic/Latino	1864	3914	5778	32%	No
Native Hawaiian/Pacific Islander	8	23	31	26%	No
Two or More	300	814	1114	27%	No
Unknown/No Response	269	591	860	31%	No
White	111	441	552	20%	No
Total	3061	7178	10239		

*Chi-square=9.820, df=1, p=.00 (significant at p<.05)*

**Table 5. Disproportionate Impact by DSPS**

Disability	Completed PR		Total	% of Completed PR	Disproportionate Impact
	Yes	No			
Yes	75	118	193	39%	No
No	2986	7056	10042	30%	No
Unknown	-	4	4	-	N/A
Total	3061	7178	10239		

*Chi-square=.692, df=1, p=.41 (not significant at p<.05)*

**Table 6. Disproportionate Impact by Gender**

Gender	Completed PR		Total	% of Completed PR	Disproportionate Impact
	Yes	No			
Male	1098	2932	4030	27%	Yes
Female	1907	4139	6046	32%	Yes
Unknown	56	107	163	34%	No
Total	3061	7178	10239		

*Chi-square=8.572, df=1, p=.00 (not significant at  $p<.05$ )*

## **Results on Disproportionate Impact**

Tables 3 to 6 in the previous pages identify the disproportionate impact when the PR is taken before PSYC 101.

Chi-square tests revealed there is a significant difference between age groups, ethnicity, and gender. Overall, 70% of students who enter PSYC 101 successfully completed the prerequisite. However, 35% of the students aged 20-24 who entered PSYC 101 successfully completed the prerequisite. When applying the 80% rule,  $35\% \times 80\% = 28\%$ . According to Glasnapp and Poggio's (2001) 80% rule, any group which falls below 39% indicates a disproportionate impact.

Table 3 shows that all of the age groups fell below 39%, However, only the Asian group yielded statistical significance ( $p= .01$ ) at significance level  $p<.05$ . Table 4 shows that all of the groups within ethnicity fell below 39%, However, the 20-24 and 35-39 age groups yielded statistical significance ( $p= .00$ ) at significance level  $p<.05$ . Table 6 shows that all of the gender groups fell below 39%, However, the male and female groups yielded statistical significance of  $p= .00$  (male) and  $p= .04$  (female) at significance level  $p<.05$ . Both male and female groups were disproportionately impacted using Glasnapp and Poggio's 80% rule. In addition, they failed to meet the proportionality index in which the number of students who completed the PR is compared to the total cohort, which gives the percent of student who completed the prerequisite. For the male and female sub groups, their proportionality index is low.

There is no observed disproportionate impact that exist by disability.

## **Recommendation**

Based on the high success outcome data for PSYC 101, students are largely successful without the prerequisite course. It is recommended that faculty identify and examine the competency they believe the students need in order to be successful in the course, and determine how it can be met upon course entry. Again, being mindful that the vast majority of the students are successful in the course without the prerequisite.

# PSYC 241 – Introduction to Psychobiology

Two measures were examined between prerequisite completers and non-completers:

1. Course Grade Averages in PSYC 241
2. Success rate in PSYC 241

Following is the summary of the results.

## Course Grade Averages in PSYC 241

**Table 1. Grades in PSYC 241**

	Successful Completion of PR	Did Not Successfully Complete PR
A	15	1281
B	14	794
C	9	554
D	3	177
F	5	261
W	7	292
<b>Total</b>	<b>53</b>	<b>3359</b>
Course Grade Average	2.38	2.28
T-Value	.492	
Sig (P-Value)	.623	
Cohen's <i>d</i>	.04	

To determine if student's course grade average in PSYC 241 is significantly different by the two groups, a t-test of independent groups was performed. Data indicates that students who successfully completed a PR had a slightly higher course grade average in PSYC 241 than those who did not complete the PR ( $p = .62$ ). The effect size was .04, indicating a low practical impact on success if students successfully completed a prerequisite prior to enrolling in PSYC 241.

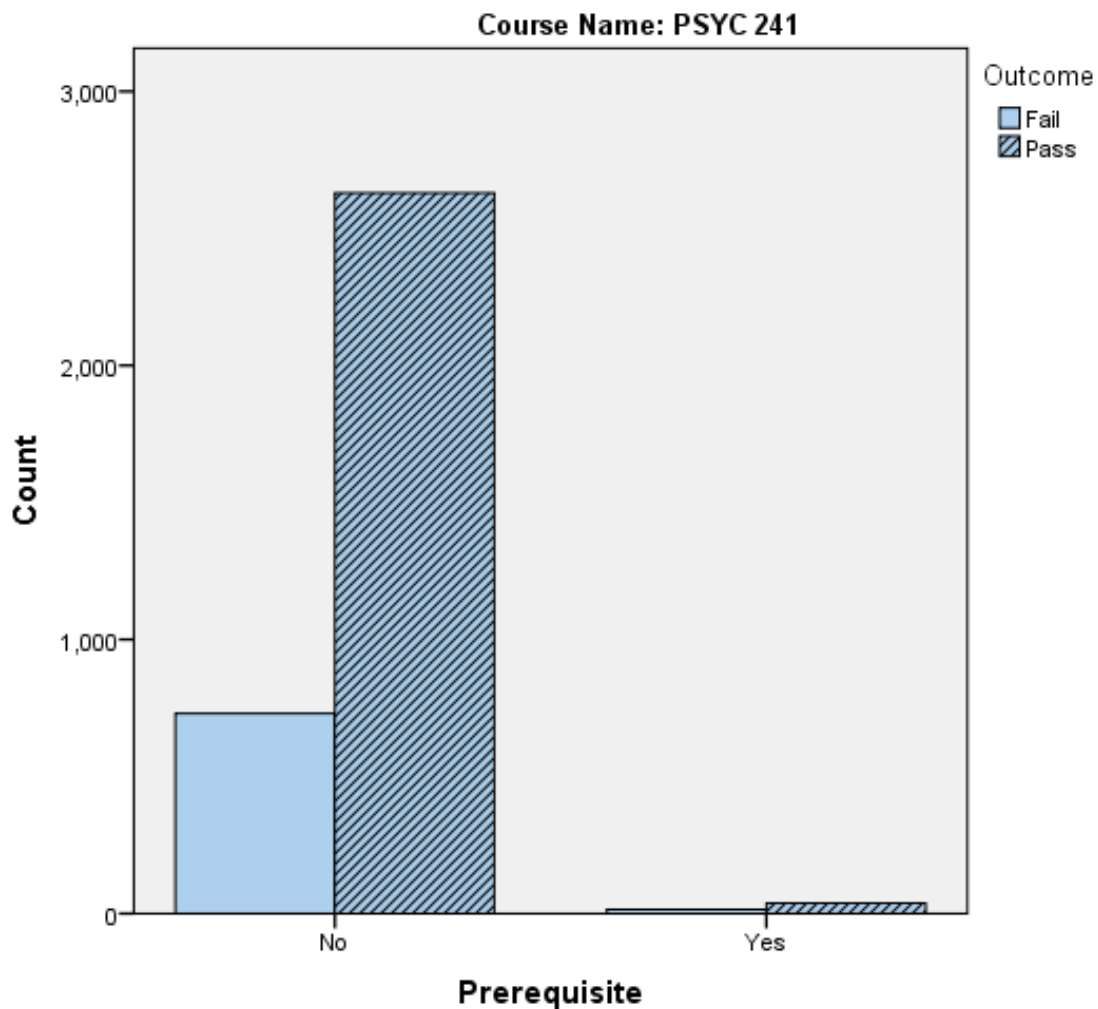
**Table 2. Success Rate in PSYC 241**

	Completed PR		Total
	Yes	No	
<b>Pass</b>	38	2629	2667
<b>Fail</b>	15	730	745
	53	3359	3412
<b>Success Rate</b>	72%	78%	78%

*Chi-Square = 1.319, df = 1, p = .25*

To determine if student's success rate in PSYC 241 is significantly different by the two groups, a chi-square test was performed. Data shows that students who successfully completed the PR had lower success rate (72%) in PSYC 241 with students who did not successfully complete the prerequisite (78%). However, results were not statistically significant ( $p = .25$ ).

**Figure 1**



### **Disproportionate Impact Analysis**

To examine whether a disproportionate impact existed, data were generated for prerequisite course/target course combination. The last column in the following tables ("Disproportionate Impact") identify whether a disproportionate impact was observed ("Yes" if disproportionate impact was observed).



**Table 3. Disproportionate Impact by Age Group**

Age	Completed PR		Total	% of Completed PR	Disproportionate Impact
	Yes	No			
19 or Younger	3	530	533	1%	No
20-24	30	1516	1546	2%	No
25-29	3	326	329	1%	No
30-34	1	108	109	1%	No
35-39	1	65	66	2%	No
40-49	-	59	59	-	N/A
50+	-	25	25	-	N/A
Total	38	2629	2667		

*Chi-square=.160, df=1, p=.69 (not significant at  $p<.05$ )*

**Table 4. Disproportionate Impact by Ethnicity**

Ethnicity	Completed PR		Total	% of Completed PR	Disproportionate Impact
	Yes	No			
African American/Black	1	101	102	1%	No
American Indian/Alaskan Native	1	40	41	2%	No
Asian	6	303	309	2%	No
Hispanic/Latino	21	1520	1541	1%	No
Native Hawaiian/Pacific Islander	-	7	7	-	N/A
Two or More	3	238	241	1%	No
Unknown/No Response	6	297	303	2%	No
White	-	123	123	-	N/A
Total	38	2629	2667		

*Chi-square=2.105, df=1, p=.15 (not significant at  $p<.05$ )*

**Table 5. Disproportionate Impact by DSPS**

Disability	Completed PR		Total	% of Completed PR	Disproportionate Impact
	Yes	No			
Yes	-	62	62	-	N/A
No	38	2567	2605	1%	No
Total	38	2629	2667		

*Chi-square=.426, df=1, p=.51 (not significant at  $p<.05$ )*

**Table 6. Disproportionate Impact by Gender**

Gender	Completed PR		Total	% of Completed PR	Disproportionate Impact
	Yes	No			
Male	10	926	936	10%	No
Female	26	1651	1677	2%	No
Unknown	2	52	54	4%	No
Total	38	2629	2667		

*Chi-square=.870, df=1, p=.58 (not significant at  $p<.05$ )*

## **Results on Disproportionate Impact**

Tables 3 to 6 in the previous pages identify the disproportionate impact when the PR is taken before PSYC 241.

Chi-square tests indicated no statistical differences between groups by age group, ethnicity, disability, and/or gender; therefore, no observed disproportionate impact exists by age group, ethnicity, disability, and/or gender.

## **Recommendation**

Due to the lack of prerequisite outcome data, there was no significant statistical difference in success. However, based on the high success outcome data for PSYC 241, students are largely successful without the prerequisite course. It is recommended that faculty identify and examine the competency they believe the students need in order to be successful in the course, and determine how it can be met upon course entry. Again, being mindful that the vast majority of the students are successful in the course without the prerequisite.

# PSYC 273 – Mental Health Worker Field Experience

Two measures were examined between prerequisite completers and non-completers:

1. Course Grade Averages in PSYC 273
2. Success rate in PSYC 273

Following is the summary of the results.

## Course Grade Averages in PSYC 273

**Table 1. Grades in PSYC 273**

	Successful Completion of PR	Did Not Successfully Complete PR
A	99	18
B	9	1
C	1	-
D	-	-
F	4	2
W	9	2
<b>Total</b>	<b>122</b>	<b>23</b>
Course Grade Average	2.28	2.43
T-Value	.466	
Sig (P-Value)	.642	
Cohen's <i>d</i>	.05	

To determine if student's course grade average in PSYC 273 is significantly different by the two groups, a t-test of independent groups was performed. Data indicates that students who successfully completed a PR had a slightly lower course grade average in PSYC 273 than those who did not complete the PR ( $p = .64$ ). The effect size was .05, indicating a low practical impact on success if students successfully completed a prerequisite prior to enrolling in PSYC 273.

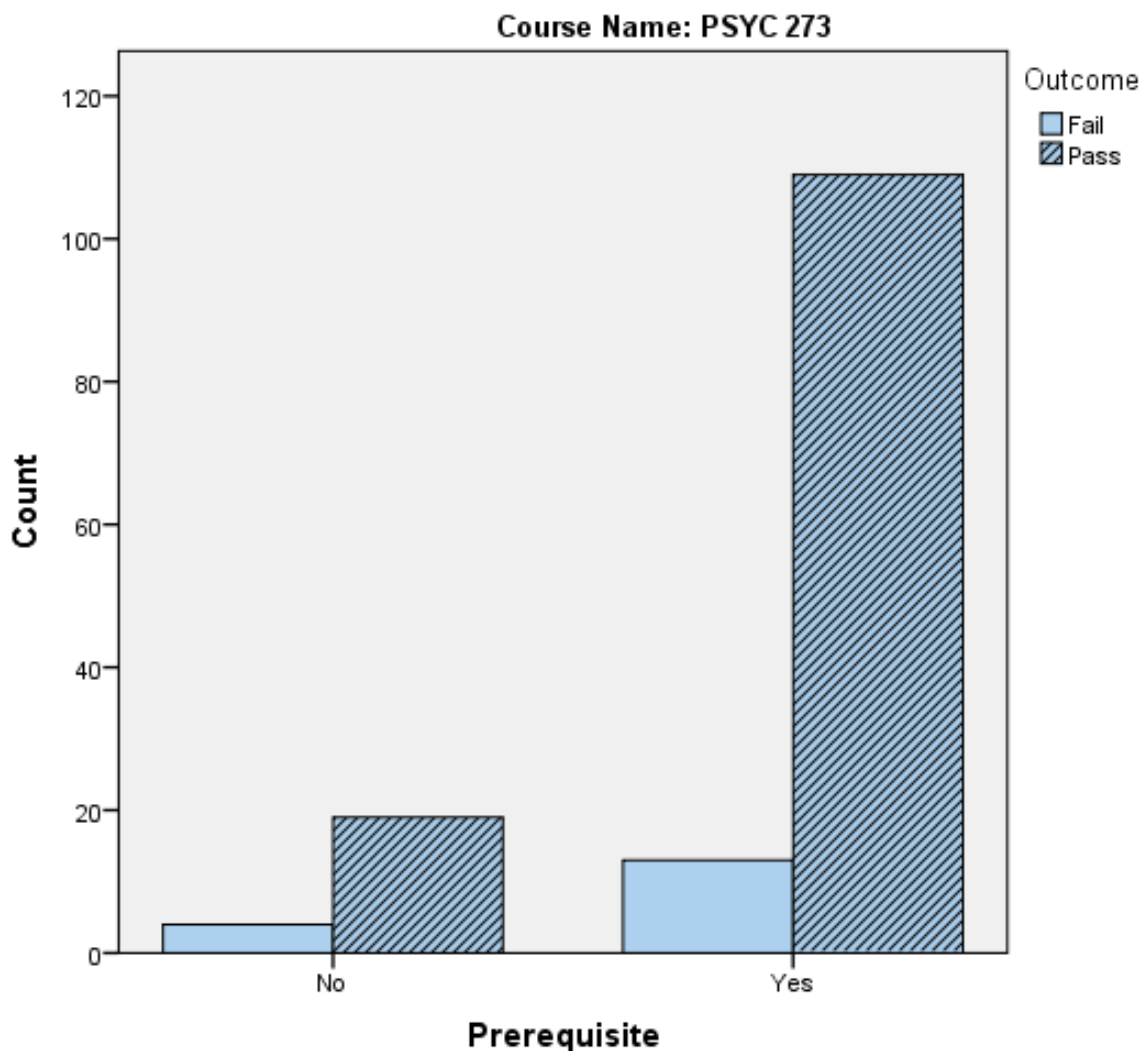
**Table 2. Success Rate in PSYC 273**

	Completed PR		Total
	Yes	No	
<b>Pass</b>	109	19	128
<b>Fail</b>	13	4	17
	122	23	145
<b>Success Rate</b>	89%	83%	88%

*Chi-Square = .848, df = 1, p = .36*

To determine if student's success rate in PSYC 273 is significantly different by the two groups, a chi-square test was performed. Data shows that students who successfully completed the PR had higher success rate (89%) in PSYC 273 with students who did not successfully complete the prerequisite (83%). However, results were not statistically significant ( $p = .36$ ).

**Figure 1**



### **Disproportionate Impact Analysis**

To examine whether a disproportionate impact existed, data were generated for prerequisite course/target course combination. The last column in the following tables (“Disproportionate Impact”) identify whether a disproportionate impact was observed (“Yes” if disproportionate impact was observed).

**Table 3. Disproportionate Impact by Age Group**

Age	Completed PR		Total	% of Completed PR	Disproportionate Impact
	Yes	No			
19 or Younger	1	-	1	100%	No
20-24	32	10	42	76%	No
25-29	26	4	30	87%	No
30-34	18	2	20	90%	No
35-39	10	-	10	100%	No
40-49	11	2	13	85%	No
50+	11	1	12	92%	No
Total	109	19	128		

*Chi-square=1.824, df=1, p=.18 (not significant at p<.05)*

**Table 4. Disproportionate Impact by Ethnicity**

Ethnicity	Completed PR		Total	% of Completed PR	Disproportionate Impact
	Yes	No			
African American/Black	5	-	5	100%	No
American Indian/Alaskan Native	2	-	2	100%	No
Asian	4	-	4	100%	No
Hispanic/Latino	69	11	80	86%	No
Native Hawaiian/Pacific Islander	-	-	-	-	N/A
Two or More	9	2	11	82%	No
Unknown/No Response	9	5	14	64%	No
White	11	1	12	92%	No
Total	109	19	128		

*Chi-square=1.412, df=1, p=.24 (not significant at p<.05)*

**Table 5. Disproportionate Impact by DSPS**

Disability	Completed PR		Total	% of Completed PR	Disproportionate Impact
	Yes	No			
Yes	15	1	16	94%	No
No	94	18	112	84%	No
Total	109	19	128		

*Chi-square=.784, df=1, p=.38 (not significant at p<.05)*

**Table 6. Disproportionate Impact by Gender**

Gender	Completed PR		Total	% of Completed PR	Disproportionate Impact
	Yes	No			
Male	32	1	33	97%	No
Female	76	18	94	81%	No
Unknown	1	-	1	100%	No
Total	109	19	128		

*Chi-square=293, df=1, p=.59 (not significant at  $p < .05$ )*

## **Results on Disproportionate Impact**

Tables 3 to 6 in the previous pages identify the disproportionate impact when the PR is taken before PSYC 273.

Chi-square tests indicated no statistical differences between groups by age group, ethnicity, disability, and/or gender; therefore, no observed disproportionate impact exists by age group, ethnicity, disability, and/or gender.

## **Recommendation**

Based on the high success outcome data for the PSYC 273 with prerequisite, faculty identify and examine the competency they believe the students need in order to be successful in the course, and determine how it can be met upon course entry.