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Predicting Graduation from an Associate Degree Nursing Program Using Performance in Biology Coursework

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PREDICTING GRADUATION FROM AN ASSOCIATE DEGREE NURSING
PROGRAM USING PERFORMANCE IN BIOLOGY COURSEWORK

BY

Stefanie Gadson Brown

A doctoral project submitted to the faculty of the Medical University of South Carolina in partial fulfillment of the requirements for the degree Doctor of Health Administration in the College of Health Professions

Abstract

Abstract of Doctoral Project Presented to the
Executive Doctoral Program in Health Administration & Leadership
Medical University of South Carolina
In Partial Fulfillment of the Requirements for the
Degree of Doctor of Health Administration

PREDICTING GRADUATION FROM AN ASSOCIATE DEGREE NURSING
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Stefanie Gadson Brown

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This restrospective quantitative study focused on two cohorts of associate degree nursing
(ADN) students who started coursework in 2014 and 2015. Data consisted of
demographics, high school grade point average (HSGPA), grades in biology courses,
graduation status, and whether biology courses were completed prior to the start of the
nursing program. Multivariable logistic regression modeling was performed to determine
which, if any, of the demographic and academic variables were predictors of on-time
graduation. Of the variables, minority race, grades in BIO 210, HSGPA, and completing
biology courses prior to starting the ADN program were predictors of on-time graduation.
The results of this study should be used to target at-risk students, improve student
performance in BIO 210, and advise students to complete biology courses prior to
starting the ADN program.

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Chapter 1

Introduction

Technical education in the health sciences and nursing fields commonly utilizes competitive admissions processes to select applicants for programs. Community colleges work to serve communities by training and developing a qualified workforce and admitting students on an open-enrollment basis. Students enter community colleges with diverse educational backgrounds, some needing developmental coursework to prepare for college-level work. For more demanding healthcare curricula, a separate admissions process takes place to evaluate a pool of applicants for entry. This separate, selective process can include criteria such as completed coursework, grade point average (GPA), scores from comprehensive examinations, and/or prior completed degrees, credentials, or certifications.

The goal of selective, competitive admissions is to select strong candidates that will eventually graduate and go on to fill positions within the community. Doing so helps to address an ongoing national and global issue, the growing demand for healthcare workers. According to the Bureau of Labor and Statistics (2017), occupations in the healthcare support and healthcare practitioner industries are expected to be among the fastest growing sectors during 2016-2026, projecting to add approximately 4 million jobs by the end of that decade. The Bureau of Labor and Statistics (2018) reported the total amount of job openings in January 2017 was over 5.4 million, and over 1 million of those

positions were health and social services related. Projected employement growth for registered nurses is expected to by 15% alone (Bureau of Labor and Statistics, 2018). The work of educational institutions supplies graduates in a direct effort to address this demand. However, these highly competitive, demanding programs can suffer from fluctuations in retention and enrollment, all of which can negatively impact graduation rates. Retaining students can be challenging throughout the progression of programs, as material and skills training becomes increasingly more difficult. Fluctuations in enrollment is not an issue unique to healthcare programs in the two-year sector. The National Student Clearinghouse Research Center (2017) reported enrollment across all sectors of Title IV, degree-seeking institutions steadily declined from 2014 to 2017. The two-year public institutions experienced a large decline during the 2014-2015 academic year with an enrollment loss over 4% (National Student Clearinghouse, 2017). As enrollment in two-year colleges steadily decreases and the demand for qualified healthcare workers steadily increases, the challenge goes beyond selecting the best candidates to preparing students to be viable candidates and seeing them through to completion.

The purpose of the current study is to find the best predictors of graduation from associate degree nursing (ADN) programs by researching entering cohorts of students rather than cohorts of graduates. In doing so, administrators and faculty will be able to identify areas of focus to help better prepare students for entry into these challenging curricula, giving enhanced opportunities to increase the number of successful graduates. In two-year institutions, students rarely enter college with the demographics and academic background that research suggests would increase the likelihood of success in

nursing programs. The intent is to pinpoint areas to strengthen weak students in order to increase their chances of success, while increasing enrollment and improving retention.

Chapter 2

Literature Review

Research related to admission criteria mainly focuses on identifying impactful selection criteria. Shulruf, Wang, Zhao, and Baker (2011) sought to identify the best predictor of student success, classified by GPA at the completion of the first year of a nursing curriculum. The study looked at grade point average (GPA) prior to the start of the program, as well as demographics and rankings from the application process to help determine if any had correlations to GPA at completion of the first year (Shulruf, Wang, Zhao, & Baker, 2011). Set in New Zealand, the cohort included 134 University of Auckland nursing students, with data retrieved from a faculty-administered and maintained database. It is important to note GPA prior to entry is based on an outcome assessment based system that was implemented in New Zealand in 2001. The National Certificate of Educational Assessment GPA (NCEAGPA) is based on achievement of standards on the secondary school level, the high school level, when compared to the US. In the study, NCEAGPA was identified as the best predictor of first-year program GPA. Shulruf, Wang, Zhao, and Baker (2011) also noted that ethnicity did not factor into first year GPA, and females performed better than males. One limitation of the study is that it did not include GPA upon the completion of the program. Such information would give a clear picture of the cohort at the start, while in progress, and at completion.

Meiners and Rush (2017) researched a cohort of 134 doctor of physical therapy (DPT) graduates from 2012-2014 to determine if any admission or program performance

variables would predict success on the National Physical Therapy Examination (NPTE). Admission variables included undergraduate GPA, verbal Graduate Record Examination (VGRE) scores, and quantative Graduate Record Examination scores (QGRE). Student program performance variables included first-year program GPA (1PTGPA) and Physical Therapy Clinical Performance Instrument (PT CPI) scores. The research team found 1PTGPA to be the significant predictor of NPTE score. In a study with similar findings, Dockter (2001) also found first-year program GPA to be a significant predictor of NPTE score.

Downing, Collins, and Browning (2002) also researched admission criteria to determine the best predictor of GPA at graduation and examination scores post graduation. The study cohort was comprised of 134 baccalaureate dental hygiene students over a six-year period, 1996-2001, at the Medical College of Georgia. Success was measured by scores on the Dental Hygiene National Board Examination and by dental hygiene GPA at the point of graduation. Using multiple regression analysis, the researchers found incoming GPA and total SAT scores were the most efficient model in predicting GPA at graduation, while only incoming GPA were efficient in predicting board examination scores. From these findings, a model was developed with predictive values on board examinations and GPA at completion for use by the institution. A follow-up study was conducted to test if a relationship existed between predicted success and actual success (Ward, Downey, Thompson, & Collins, 2010).   Ward, Downey, Thompson, and Collins (2010) researched 156 dental hygiene students at the Medical College of Georgia between 2002 and 2007. The research team added two data points to this follow-up study, GPA after the first three semesters in the program and after five

semesters. When utilizing the developed predictive model, moderate correlation was found between predicted values and actual values for both GPA at graduation and board examination scores. Stronger correlation was found between GPA after the first three semesters and GPA at graduation. These findings provided more beneficial implications, because faculty could use this information to develop remediation for program students.

In a retrospective study involving medical radiation students, Kwan, Childs, Cherryman, Palmer, and Catton (2009) assessed whether a positive correlation existed between admission criteria and program performance, as well as performance on certification examinations.The study looked at data from 122 students in a medical radiation programs at the University of Toronto that entered in September 2002. Admission criteria included incoming GPA, with biology, math, and physics courses as prerequisites, and scores on a standardized interview. Success criteria was identified as exit GPA, performance in program courses, and scores on certification examinations. Of the 122 program students, only 46 students consented to releasing their scores on certification examinations. Program courses were divided into "technical knowledge and skills courses (TKS) and professional practice and patient care courses (PPP)." (Kwan, Childs, Cherryman, Palmer, & Catton, 2009, p. 159) Radiologic technology students GPA prior to entry and undergraduate math courses were correlated with performance in TKS courses, while radiation therapy students GPA and science courses were linked with PPP courses. Because certification examinations are attempted post-graduation, collecting such information is a common challenge. This study benefited from being able to collect this type of data. GPA and math course grades of radiation therapy students were correlated with certification examination performance, while GPA, biology course

grades, performance in TKS and PPP courses, and program GPA were all correlated significantly with certification examination performance for radiation therapy students. The research team could not validate the value of the standardized interview as it relates to student success. It was noted that clinical courses were graded as pass/fail and thus were not included in this study. While the study did collect certification results for some students, the sample size was small compared to the other variables. Such a low sample size does limit the generalizability of the findings.

In a retrospective study with a larger sample group, Platt, Turocy, and McGlumphy (2001) studied a sample of 373 graduates of various private university health care programs between 1992 and 1997. The programs included athletic training, health management systems, occupational therapy, physical therapy, physician assistant, and perfusion technology. The admission criteria included high school transcripts, college transcripts, and reported SAT scores. Student GPAs were calculated from transcripts. The study examined high school GPA and SAT scores as a predictor of GPA at the point of graduation. When looking at all students in allied health programs, the study found that high school GPA and SAT verbal scores were predictive of student success. The study only reviewed graduates, excluding students that did not complete the curricula. The sample included students of various academic programs, with varying lengths, skill and difficulty levels. Breaking down the results by program duration might present more focused, descriptive results. While the findings of this study are interesting, the study population included undergraduate and graduate level students, thus limiting the use of the findings to those populations.

In a literature review of health admissions processes, Ingrassia (2016) focused on

the need for cognitive and non-cognitive selection criteria. Non-cognitive skills are necessary attributes for healthcare workers that can be challenging to teach. Using non-cognitive skills as an admission criteria might involve more of a subjective nature. However, interpersonal skills, motivation, honesty, and integrity are all important for healthcare workers. Whether these should be included in the admissions process, or developed throughout the curriculum is an area of great interest.

Timer and Clauson (2011) conducted a restrospective study focusing on 249 nursing students from 2002-2006 to determine the predictive validity of admissions criteria, both cognitive and non-cognitive. Admission variables were student demographics, interview scores, supplemental application scores, and entering GPA. Student success was measured using final program GPA and numerical mean grades for six nursing courses, taken throughout the program. Student demographics included age, gender, minority status, and previous secondary education degree completion. Interviews assessed in areas of "motivation, nursing awareness, coping and problem solving, ability to relate, and self perception" (Timer & Clauson, 2011, p. 603). Supplemental application scores were calculated using applicants personal statements and resumés, scoring in the areas of leadership, teamwork, experience, and suitability for nursing. Both interview scores and supplemental application scores assessed applicants in non-cognitive areas, whereas entering GPA served as a cognitive variable. Timer and Clauson (2011) found entering GPA was the only consistent predictor, while both non-cognitive variables were not consistent predictors of student success.

Hayes, Fiebert, Carroll, and Magill (1997) retrospectively studied a cohort of 107 physical therapy students to determine if differences existed between traditional and

nontraditional students as related to admission criteria and program success. Independent variables included various grade point averages: preprofessional, science, and freshman. Interview scores, dean's list or honors recipient status, previous degree completion, previous related work experience were also independent variables. Another cognitive variable was grades in gross anatomy while in the physical therapy program. Demographics collected were age at the start of college, age at the start of the physical therapy program, marital status, and gender. A common demographic data point that was missing was race, which would have strengthened the results by identifying possible differences. The dependent variable was final GPA at the point of graduation. Hayes, Fiebert, Carroll, and Magill (1997) were able to identify gross anatomy grades, preprofessional GPA, and interview scores as significant predictors of final GPA. With interview scores being a significant predictor of success, this warrants including this method in addition to cognitive measures to better identify potential students.

As noted from these studies, incoming GPA is the best predictor of student success. According to a systematic review conducted by Schmidt and MacWilliams (2011), cumulative GPA is the most commonly used admissions criteria for nursing programs. Through their review, Schmidt and MacWilliams (2011) found GPA to be a significant predictor of program completion, but studies showed conflicting results for the predictive value of GPA as it relates to success on the National Council Licensure Examination-Registered Nurse (NCLEX-RN). The review also found a number of studies that linked anatomy and physiology, as well as microbiology courses with program completion. Kwan, Childs, Cherryman, Palmer, and Catton (2009) were able to correlate performance on program coursework, exit GPA, and certification examination scores

with completed mathematics and biology courses. Hayes, Fiebert, Carroll, and Magill (1997) included a science GPA in their study, as one criteria for admission. While the study found other admission variables to be significant predictors of success, such a measure certainly adds to the full picture of an application packet.

Byrd, Garza, and Nieswiadomy (1999) researched nursing students in a baccalaureate nursing program over a three year period. Demographics included age and ethnicity, while other variables included previous degree completion, science GPA, social science GPA, overall undergraduate GPA, and letter grades from nursing courses achieved in the first two semesters of the nursing program. Of 278 students, 197 students completed the program, while 22 failed and 59 dropped out. It is unknown whether those 59 students dropped out for academic or personal reasons. Of the variables, age, ethnicity, science GPA, and overall undergraduate GPA predicted completion in 77% of the cohort. The study noted that a higher cumulative science GPA was a better predictor of graduation for those prior to entering upper level coursework. Following the start of upper level coursework, the social science GPA was the better predictor.

Gilmore (2008) conducted a study that sought to determine the best predictors of nursing GPA and NCLEX-RN success. The independent variables were ACT composite and all subscores, prenursing GPA, and grades in A&P. The sample was comprised of students who entered nursing programs from 2001 to 2003 at two community colleges, totaling 218 students. The groups was split into non-completers (42) and completers (176), for which the later was split into groups based on NCLEX-RN first-attempt success. Gilmore (2008) found all of the independent variables to be predictors of NCLEX-RN success, while prenursing GPA was statistically significant. For program

success, the variable that was statistically significant was the ACT English subscore.

As most of these studies are conducted on the four-year institution level, findings might not be applicable to the two-year, community college setting. Although Gilmore (2008) conducted a study in the two-year setting, more research is needed for this sector. Importantly, the studies tend to focus on a sample of graduates, rather than cohorts of incoming students, with non-graduates included in analyses. Including non-graduates as well as graduates would make it possible to identify if GPA is a true predictor of student success. Byrd, Garza, and Nieswiadomy (1999) were able to accomplish this by starting with a freshmen class, and accounting for those students who failed or dropped out. Gilmore (2008) also took this approach of defining the cohort by the freshmen class, rather than the graduates.

While GPA has been identified as the best predictor of success in health science and nursing programs, overall GPA may not give the best picture of student knowledge and ability. As studies by Gilmore (2008), Byrd, Garza, and Nieswiadomy (1999) and Kwan, Childs, Cherryman, Palmer, and Catton (2009) incorporated science coursework in their assessments, more research is warranted in this area.

Chapter 3

Methods

Study Objectives

This current study concentrated on three objectives. First, the study focused on describing the sample population of graduates and non-graduates of an ADN program. Second, grades from anatomy and physiology courses were analyzed to determine the best predictor of graduation. Third, students were categorized by those who have completed all biology courses prior to the start of program coursework and those who have not, in order to determine if biology course completion influences graduation.

Research Questions and Hypotheses

The study sought to answer the following questions: Demographically, are there differences between graduates and non-graduates of the ADN program at Orangeburg-Calhoun Technical College (OCTech)? When starting the ADN program, are there academic factors that influence overall program success, as measured by graduation rates? Are grades in completed biology courses positively associated with graduation? Does completing biology coursework prior to starting the ADN program impact on-time graduation? By addressing those research questions, the author expected to find that a relationship existed between the independent variables and graduation.

Study Design

      This quantitative, retrospective study examined a cohort of students, by pulling data from the OCTech main student database. The source of the data were students from the classes of 2016 and 2017 of the associate degree nursing (ADN) program at OCTech. The class of 2016 is defined as all students entering the associate degree nursing program in 2014, while the class of 2017 are those who entered in 2015.

      The ADN Program admissions process is competitive. Students are required to complete a Health Information Program (HIP) session geared at providing information about the application process and requirements. Application packets are accepted beginning in the Fall prior to the anticipated start date until the program fills. For the timeframe of this study, the program accepted 100 students each year. Students are required to have a high school diploma or equivalency and a cumulative GPA of 2.5 at the last college of attendance, as well as submit all college transcripts. High school transcripts are not required if students have completed coursework included in the ADN program curriculum. After meeting these requirements, students have five routes of eligibility, along with a guaranteed track admission (GTA) option. The routes of eligibility are listed in Table 1. Admission Information for 2014 and 2015 are included in Appendix A.

Table 1: Routes of Eligibilty for ADN Program Admission

Route 1	SAT Scores: 480 Math and 480 Verbal or ACT Scores: 19 Math and 19 Reading*
Route 2	Eligible for BIO 210, ENG 101, MAT 155 and TEAS V Score of 58.7% or higher**
Route 3	Completed 12 credit hours from the following courses with a grade of C or higher and a combined GPA of at least 2.75: BIO 210, BIO 211, BIO 225, ENG 101, MAT 155, MAT 101, MAT 102, PSY 201, PSY 203, CPT 170, CPT 101, and Humanities Elective
Route 4	Associate or bachelor degree with a GPA or 2.75 or higher
Guaranteed Track Admission	Completed all of the following courses on the first attempt with a combined GPA of 3.25: ENG 101, PSY 201, PSY 203, BIO 210, BIO 211, MAT 155, and Humanities Elective***

*The SAT format was updated in 2016, and the ACT format was updated in 2015. These scores followed older test formats and scoring.
**Test of Essential Academics Skills, Version V. Maximum of two attempts per application year, unless accompanied by completion of TEAS Prep course. In this case, four attempts are allowed.
***Repeating students are not eligible for GTA admission.

Specification of Variables

In the first analysis, the independent variables are grades for BIO 210 Anatomy and Physiology I, BIO 211 Anatomy and Physiology II, and BIO 225 Microbiology, while the dependent variable is on-time ADN program completion. Variables for the first analysis are listed in Table 2.

Table 2: Variables for First Analysis

Variable	**Description**	**Format**
BIO 210	Course grade	Numeric
BIO 211	Course grade	Numeric
BIO 225	Course grade	Numeric
Graduation	On-time completion	Yes/No (1,0)

In the second analysis, completion of these requirements prior to starting

programs are the independent variable, and the dependent is on-time graduation. Biology

courses are a requirement for the ADN program, and are encouraged, but not required, to

be completed prior to the start of program-specific coursework. Variables for the second

analysis are listed in Table 3.

Table 3: Variables for Second Analysis

Variable	Description	Format
Completed BIO Courses	All required biology courses are completed prior to program start	Yes/No
Graduation	On-time completion	Yes/No

Data Collection

Data was collected from the OCTech database using Entrinsik Informer, a

program utilized by OCTech that is designed to pull and organize data from large

database systems. A query was designed to pull student records that included data for all

independent and dependent variables, as well as demographics. The following identifying

information was excluded: name, address, school identification number, date of birth, and

social security number. Each record was assigned a seven-digit number for anonymous

identification within the study sample. Demographics were included in the dataset for the

purpose of conducting descriptive statistical analyses.

Data Analysis

Descriptive statistics conducted on both the graduate and non-graduate groups,

using means and sums to assess and compare the study sample by age, race, and gender.

Multivariable logistic regression modeling was used to analyze the data. Four separate

models were conducted on demographic and academic factors, as well as an exploratory

model used to identify predicting variables for on-time graduation.

Chapter 4

Results

The study population consisted of 191 students who started the ADN program between 2014 and 2015. Although 100 students were accepted each year, a total of 97 students started nursing coursework in 2014, and 94 students started in 2015. The students were 89% female and 35.1% of minority race, with approximately equal distribution by year (51% in 2015). On-time graduation was 35.1%, with slightly fewer graduating for the 2015 cohort (30.0% vs 40.4%) but this difference was not statistically significant (p=0.1274). The characteristics of the study population are provided in Table 4 below.

Table 4: Demographic and Academic Characteristics of the Study Population.

Variable	Sample Size	Percentage	Number with Complete Values Total N=191
Demographic Characteristics			
Gender			
Females	170	89	191
Males	21	11	191
Race			
Non-Minority	124	64.9	191
Minority	67	35.1	191
Age			
Mean (SD)	27.3 (8.2)		191
Academic Characteristics			
Start Year 2014	97	50.8	191
Start Year 2015	94	49.2	191
Repeating Program	27	14.1	191
High School GPA Mean (SD)	2.7 (0.8)		127
High School GPA < 3.0	31	24.4	127
No High School GPA Recorded	64	33.5	191
Transferred in BIO 210	74	38.7	191
Transferred in BIO 211	67	35.1	191
Transferred in BIO 225	49	25.7	191
Repeated BIO 210	19	10	191
Repeated BIO 211	19	10	191
Repeated BIO 225	10	5.2	191
Grade BIO 210 Mean (SD)	2.6 (0.8)		191
Grade BIO 211 Mean (SD)	2.7 (0.8)		187
Grade BIO 225 Mean (SD)	2.7 (0.8)		170
Grade of 2 in OCTech BIO 210	62	32.5	191
Grade of 2 in Transferred BIO 210	29	15.2	191
BIO Courses Complete at Start	131	68.6	191
BIO Courses Incomplete at Start	60	31.4	191

*Missing High School GPA is scored as < 3.0 because those students have similar performance to students with a recorded High School GPA < 3.0.

The distribution of the student characteristics by on-time graduation is shown in Table 5 below. The univariate analysis indicated that risk factors for not graduating on time were minority race, generally lower high school grades (GPA data missing for 64 students), lower grades on Biology 210, lower grades on higher level biology courses

(data missing for 4 to 21 students on these variables) and not having all biology courses completed at the start of the program. The categorical variable "No High School GPA Recorded" was added to solve the problem of missing GPA data.

Table 5: Characteristics of Students Graduating On Time by Demographic and Academic Characteristics
(Statistically significant variables in **bold**.)

Variable	On-time Graduation N=67	Not Graduating on Time N=124	Statistic
Female sex N (%)	58 (86.6)	112 (90.3)	.4585
Minority Race	**14 (20.9)**	**53 (42.7)**	**.0025**
Age Mean (SD)	26.0 (7.5)	30.0(8.5)	.1090
Start Year 2014	29 (30.0)	38 (40.4)	.1274
Repeating Program	9 (13.4)	18 (14.5)	.8375
High School GPA Mean (SD)	**3.7 (.68)**	**3.4 (.57)**	**.0424**
High School GPA < 3.0	**23 (34.3)**	**72 (58.1)**	**.0017**
No High School GPA Recorded	**11 (16.4)**	**53 (42.7)**	**.0002**
Transferred in BIO 210	10 (14.9)	19 (15.3)	.9418
Transferred in BIO 211	26 (38.8)	41 (33.1)	.4275
Transferred in BIO 225	21 (31.3)	28 (22.6)	.1857
Repeated BIO 210	5 (7.5)	14 (11.3)	.3990
Repeated BIO 211	5 (7.5)	14 (11.3)	.3990
Repeated BIO 225	2 (3.0)	8 (6.5)	.3047
Grade BIO 210 Mean (SD)	**2.9 (.81)**	**2.5 (.68)**	**.0003**
Grade BIO 211 Mean (SD)	**2.9 (.77)**	**2.5 (.78)**	**.0011**
Grade BIO 225 Mean (SD)	**2.9 (.71)**	**2.6 (.84)**	**.0207**
BIO courses complete at start N (%)	**57 (45.3)**	**10 (16.7)**	**.0003**
Grade of 2 in OCTECH BIO 210 N (%)	**14 (20.9)**	**48 (38.7)**	**.0121**
Grade of 2 in Transferred BIO 210 N (%)	21 (31.3)	28 (22.5)	.1857

The likelihood of graduating on time was examined using logistic regression analysis. Variables with missing values were not used as predictors in the final model of graduation because regression models may be biased when variables with missing values are included. None of the models using the students' grades in BIO 211 and BIO 225 were significant, and they missed the inclusion of 76 students; thus, those models are not

shown here. Students' demographic characteristics were modeled separately, as were

students' academic performance measures. A final parsimonious prediction model

included only predictors that were statistically significant and could be constructed to

include all students in the model. The results are provided in Table 6 below.

Table 6: Multivariable Logistic Regression Models Predicting Likelihood of On-Time Graduation (statistically significant variables in **bold**)

Variable	Model 1 Demographics Model OR (95% CI)	Model 2 Academics Model OR (5% CI)	Model 3 Exploratory Demographics and Academic Model OR (5% CI)	Model 4 Final Model OR (5% CI)
Male sex	1.540 (.580-4.090)			
Minority Race	**.335** **(.166-.678)**			**0.350** **(0.166-0.737)**
Start Year 2014	1.814 (.968-3.399)			
Age	.969 (.931-1.008)			
Repeating Program		0.494 (0.189-1.290)	0.490 (0.191-1.255)	
BIO 210 Grade		**2.159** **(1.370-3.403)**		
BIO Courses Complete at Start		**4.230** **(1.829-9.779)**	**4.316** **(1.902-9.793)**	**3.619** **(1.607-8.151)**
High School GPA missing		**0.222** **(0.099-0.498)**	**0.231** **(0.105-0.511)**	**0.242** **(0.110-0.532)**
Grade of 2 in OCTECH BIO 210			**0.382** **(0.157-0.928)**	**0.463** **(0.217-0.985)**
Grade of 2 in Transferred BIO 210			0.648 (0.234-1.791)	
More than 1 attempt at BIO 210			1.121 (0.596-2.107)	

The multivariable logistic models prediction of on-time graduation showed that of

the student demographics variables, only minority race predicted graduation. Minority

students were 66.5% less likely to graduate when compared with non-minority students

after controlling for age and sex (Model 1). As shown in Model 2, the academic grades

regression indicated that for each increment of one on the grade in BIO 210. the

likelihood of graduating on-time increased by 216%. A total of 48% of students had a

recorded grade of 2.0 and these students have an on-time graduation rate of 26.5%. An

increase in their BIO 210 grades to 3.0 could improve their likelihood of graduating on

time to 59%. Of the academic variables identified as statistically significant in Model 2,

completing all biology courses before starting nursing courses has the largest odds ratio

point estimate, 4.230 (CI 1.829-9.779). Model 3 shows the likelihood of graduating for

students with a 2.0 in BIO 210, who took the course at OCTech compared to students

who transferred the course from another institution. This model indicated that students

with OCTech BIO 210 grades at a 2.0 are 74.5% less likely to graduate than students with

a higher grade than 2.0, while the risk of not graduating is much lower for students with a

2.0 grade who transferred in the BIO 210 course (35.2% lower risk and not statistically

significant). Students increase the likelihood of graduating on time by 432% if all biology

courses are complete prior to starting the ADN Program. However, students without a

recorded high school GPA remain at about 76.9% increased risk of failing to graduate on

time. This final, most parsimonious model (Model 4) shows that four variables,

independently, explain much of the risk of failure to graduate on time (C statistic is

0.753). The variable minority race reduces likelihood of graduation on time by 65.0%, a

grade of 2 in BIO 210 from OCTech reduces the likelihood of graduation on time by

53.7%, and not having a recorded HSGPA reduces the likelihood of graduation on time

by 75.8%. Again, the variable with the greatest impact is completing all biology courses

prior to starting program work. Students are 3.6 times more likely to graduate on time if all biology coursework is completed before starting the ADN Program.

Chapter 5

Discussion

Students with the greatest chance of reaching completion are non-minority, have a recorded HSGPA higher than 3.0, have completed all biology courses before starting the program, and have earned a grade higher than a C in BIO 210, regardless of the number of course attempts. Demographically, the majority of the study population were non-minority females, totaling 110 students (57.6%). For the Class of 2016 and 2017, 67 minority students began coursework, and only 14 graduated on-time. Minority students are at a high risk of not reaching completion, and are also less likely to repeat, representing only 18.5% (5) of repeating students. Of the five minority repeating students, only one graduated on-time. As shown in Table 5, only 14 of 67 or 20.9% of minority students graduated on time, much lower than non-minority students (53 of 124, 42.7%).

Because there were no significant academic differences between non-minority students and minority students, factors influencing success of minority students should be explored. Differences in student success warrant further research to determine the variables that are hindering minority students from reaching their goals. Future studies could take a qualitative approach through the use of surveys, interviews, or focus groups to identify barriers to reaching completion. Implementing support programs such as

intervention groups, mentors, or intensive tutoring could also be researched for effectiveness.

Analysis of students with data for HSGPA with a HSGPA less than 3.0 showed similar results as those without a recorded HSGPA. Those with HSGPA values under 3.00 (or missing HSGPA) were 60% less likely to graduate on-time. Requiring HSGPA should be explored, because students who have no data reported are a greater risk of not graduating on-time. Obtaining high school transcripts might present a challenge to some students. However, the information is vital in order to successfully identify at-risk students.

Students with HSGPA values over 3.00 graduate at a much higher rate than those lacking HSGPA data and those with values under 3.00. High school students can now earn college credits, and doing so can positively impact HSGPA to calculations above 4.00. An assumption can be made that students with HSGPA's lower than 3.00 possibly lack the collegiate experience that a student with a 4.00 or higher might possess. Though purely an assumption, this presents an opportunity to provide collegiate exposure to students at the high school level. Looking only at HSGPA above 4.00, there are 32 students, with 18 of those graduating on time. This represents a graduation rate of 56.3% versus 35.1% for the entire study population.

The best course predictor is BIO 210, absent of any influence from the number of course attempts. This course was the only biology course where all 191 students had at least one attempt. As grades in BIO 210 increase above 2.0, so does the likelihood of on-time graduation. Byrd, Garza, and Nieswiadomy (1999) found GPA calculated based on

science courses to be a predictor of program success in bachelor of nursing programs. A parallel can be drawn with this study, as higher grades result in higher GPA calculations. Gilmore (2008) found grades in anatomy and physiology courses to be a predictor of success on the NCLEX-RN. Combining the approaches of these studies would make a great design, creating optimal ways to support student retention. At the program level, BIO 210 has the potential to become a foundation course for the ADN Program, where more focus is placed on student performance throughout the duration of the course. Improving outcomes in BIO 210 could provide a stronger, more prepared freshman class.

The most impactful, and controllable variable in student success is completing all biology courses before entering the ADN program. This could exist for two reasons. For one, the level of difficulty of most anatomy and physiology and microbiology courses are not well paired with the rigor of nursing courses. Students may find themselves overwhelmed with the amount of studying required to stay at a passing level. Also, students who have completed BIO 210, BIO 211, and BIO 225 possibly have a better understanding of their own abilities and the study requirements necessary to be successful. After completing these higher-level courses, students could also be adept in applying, analyzing, and synthesizing information. These skills are necessary for decision-making processes commonly encountered in healthcare programs.

While completing biology coursework prior to starting the ADN Program is generally encouraged at OCTech, this study provides results that can be used during intrusive advising processes. These findings present an enormous opportunity for advising and planning for student success. Students should be encouraged to complete biology courses prior to starting nursing coursework. The results found in this study can

be used to provide statistical evidence for students as they map out their academic strategic plans. This also present an opportunity for future research to be conducted using more ADN Programs and a larger study population.

This study had some design and data limitations. First, for students with transfer credits in biology, grades for each course were available. However, the number of attempts for each were not available. Only students with the number of attempts recorded were assessed in this area. The study is limited to data from one associate degree nursing program. The research could have benefited from the use of data from multiple institutions, thus improving generalizability. The data also did not include information on previous degree completion, or healthcare-related certifications or licensures. Such information could have provided an opportunity to assess the impact of prior academic credentials or specialized employment history. The data lacked information on the reasons why students did not complete. The study focuses on biology coursework influencing whether students reach completion. Other factors that could influence completion are personal issues such as health of the students or family members, financial stresses, and lack of social or academic support. Further research in this area is necessary to help identify the underlying reasons students do not complete programs on time, or at all. Findings from further research would help college administrators and faculty better meet the needs of students and ultimately improve student success.

This information provides areas of focus for faculty and administration and is vital in efforts to improve student success in ADN Programs. The results of this study provide opportunities for academic interventions and related support programs that

adequately prepare students for challenging coursework, which will ultimately lead to improved graduation rates.

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APPENDIX A: Admissions Overview Fall 2014

Associate Degree Nursing Program
ADMISSION OVERVIEW

Admission of applicants is competitive. Applicants seeking admission to the fall 2014 ADN program must meet the admission requirements as outlined in this handout. Qualified applications are reviewed on a rolling admission basis. Qualified applications will be accepted throughout the year until the class is filled. Applicants are strongly encouraged to apply early. **Applicants who are permanent residents of Orangeburg or Calhoun counties and established students at Orangeburg-Calhoun Technical College are given priority consideration. However, we do accept students from outside our service area. Applicants must be permanent U.S. citizens or a permanent resident with a U.S. Government issued Green Card for a minimum of one year prior to the date of application before they may apply for admission.**

ALL interested applicants must attend a Health Information Program Session before an application for admission will be accepted by the admission staff. All documents that are submitted with the application packet that include but are not limited to official transcripts and test scores, become the exclusive property of the college and will not be returned to the applicant.

APPLICANTS SHOULD BE AWARE THAT ALL NURSING STUDENTS MUST BE ABLE TO MEET THE FOLLOWING TECHNICAL STANDARDS REQUIRED FOR THIS OCCUPATION BEFORE STARTING THE PROGRAM IN THE FALL.

Technical Standards

Applicants who are admitted to the program will be required to validate by signature (may be required to demonstrate), their understanding of the specific physical, communication and didactic skills of the academic and clinical environment which include the ability to:

1. Put on and remove proper clothing and equipment correctly without assistance (i.e., surgery suit, shoe covers, etc.).
2. Lift 20 pounds from the floor, carry and place on a surface 36 inches in height.
3. Stand from a seated position and walk 300 feet without any impairment.
4. Lift and support patient from a bed, stretcher or wheelchair safely.
5. Move from a standing position to a squatting position and vice versa.
6. Follow oral and written instructions.
7. Detect both visual and audible alarms.
8. Correctly read aloud written instructions.

Admitted students who are not able to perform all Technical Standards will have the admission offer for fall 2014 rescinded.

A background check and/or drug test will be required upon acceptance to the program and before starting class in the fall. Positive results on background check and/or drug test may prohibit participation in clinical experiences and may necessitate removal from the program.

Note: Prior criminal convictions may affect eligibility to take the State Board Examination for Licensure.

Orangeburg-Calhoun Technical College seeks to assure diversity among its student population. The college is committed to a policy of non-discrimination in the provision of equal opportunity and equal access without regard to race, color, religion, sex, age, national origin, or handicap. The Title IX and Section 504 Compliance Officer is
Marie Howell, 3250 St. Matthews Road, Orangeburg, South Carolina 29118, telephone 535-1207.

ORANGEBURG-CALHOUN TECHNICAL COLLEGE

Associate Degree Nursing Program Application Requirements for Fall 2014

1. Attend a Health Information Program (HIP) Session to obtain admission information and application materials for the 2014 application year.

2. OCtech students or those transferring from other colleges must possess a **2.5** cumulative GPA from the last college where 12 or more credit hours (does not include developmental/remedial courses) were attempted.
   - All applicants must have or be eligible to take college level courses.
   - Applicants must be a high school graduate (certificate of completion does not qualify) or possess a GED.

3. If necessary, take required admission and/or placement tests as outlined in the HIP Session.

4. Meet one of the following test criteria:
   1) TEAS V, composite (average of math & reading) score range between 65-99 with a minimum Reading score of 65. **Students are allowed to take the TEAS test a maximum of two times for the year in which they are applying July 1, 2013-June 30, 2014, UNLESS they participate in an approved remediation program. Students participating in an approved remediation program can take the TEAS test up to a total of four times during the designated application period. There is a minimum waiting time requirement of 15 days between each TEAS test attempt.**

   2) SAT scores of 480 verbal and 480 Math or ACT Reading of 19 and Math of 19 may be used in lieu of TEAS V test requirements.

   3) Completion of a Bachelor's Degree or higher from a regionally or nationally accredited institution with a cumulative GPA of 2.75 or higher may be used in lieu of the TEAS V test requirements.

5. Once testing and GPA criteria meet minimum standards, applicants can submit a completed application packet that must include the following in order to be considered for admission:
   1) Application for Nursing/Health Science Program;
   2) State County of Residency;
   3) TEAS V/SAT/ACT scores;
   4) Official high school transcript or GED transcript indicating proof of graduation.
   5) Official transcripts from ALL colleges attended. **All college transcripts must be complete and current.**
   6) Health Sciences Application Packet Checklist with Declaration of U.S. Citizenship attached;
   7) Copy of your driver's license;
   8) Rating Sheet

6. Applicants who have had two unsuccessful (failed) enrollments in any RN or PN program will not be eligible to apply for admission. (See an admission counselor for further information).

7. Applicants who have been offered admission to a nursing program at OCtech more than once and did not enroll must petition the Program Coordinator in writing to request permission to reapply.

8. Applicants must be permanent U. S. citizens or a permanent resident with a U.S. Government issued Green Card for at least one year prior to the date of application.

Guaranteed Track Admission (GTA)

Applicants who meet minimum testing requirements and have completed all of the following courses at OCtech, on the first attempt, with a program GPA of 3.25, within 5 years of fall 2014, will be admitted to the program once all course work is verified by an admission counselor:
   - Eng101, Psy 201 & 203, Bio 210 & 211, Mat155 and the Humanities Elective.
   - Students who have had a prior enrollment in a nursing program at OCtech or those who received a GTA offer previously are not eligible for GTA.
   - If program is filled, applicants will be admitted the next fall semester.

*Qualified applicants who attended college outside of the United States and who meet citizenship requirements must provide an official translation transcript(s) from World Education Service. Fees for English translation of international transcripts must be paid by the applicant. (See Registrar for details).
Misrepresentation of information on any required forms or a willful attempt to misrepresent residency will make an applicant ineligible for admission to the Associate Degree Nursing curriculum.

Revised: May 29, 2013

ADN PROJECTED EXPENSES
(Figures DO NOT include tuition. Costs are <u>approximate</u> and may change.)

FRESHMAN YEAR

FALL
Uniforms $500.00
Lab Packet $80.00
Books/Course Packets.. $700.00
CPR Certification/First Aid (OC Tech) .... $110.00 - $137.00
Hepatitis B Vaccine ....Approximately ($56.00 per shot) $168.00
Malpractice Insurance $5.00
Professional Organization Fee $40.00
Physical (depending on source)...$150.00
Testing Fees..$200.00
Lab Fees...<u>$25.00</u>
TOTAL..**$2005.00**

SPRING
Books/Course Packets $150.00
Testing Fees..$200.00
Lab Packet...$8<u>0.00</u>
TOTAL.. **$430.00**

SUMMER
Books/Course Packets $250.00
Testing Fees..$150.00
IV Packet .... Approximately $85.00
Lab Fees.. <u>$25.00</u>
TOTAL..**$510.00**

SENIOR YEAR

FALL
Books/Course Packets $325.00
Testing Fees $150.00
Malpractice Insurance $5.00
Professional Organization Fee $40.00
Lab Packet .... Approximately <u>$60.00</u>
TOTAL... **$580.00**

SPRING
Books/Course Packets $200.00
Testing Fees $150.00
Lab Fees..$60.00
HESII Exit Exam $75.00
Other testing for Review...$250.00
State Board Application Fee $97.00
NCLEX-RN Application Fee $200.00
NCLEX-RN Review Course $250.00
1 – 2 x 2 Full Face B & W Photograph... $15.00
Invitations (Pinning) .... $10.00 - $15.00
Uniform $65.00
Nursing Pin .... $200.00 - $250.00
Graduation Fee .... <u>$50.00</u>
TOTAL **$1677.00**

APPROXIMATE TOTAL COSTS EXCLUDING TUITION **$5202.00**
(These figures do not include birth certificates or travel costs to Columbia and other areas for clinical experiences.)

APPENDIX B: Admissions Overview Fall 2015

ORANGEBURG-CALHOUN TECHNICAL COLLEGE

Associate Degree Nursing Program
ADMISSION OVERVIEW 2015

Admission of applicants is competitive. Applicants seeking admission to the fall ADN program must meet the admission requirements as outlined in this handout. <u>Qualified applications are reviewed on a rolling admission basis</u>. Qualified applications will be accepted throughout the year until the class is filled. Applicants are strongly encouraged to apply early. Applicants may still be able to submit a qualified application after April1st but only on space available basis. **Applicants must be a U.S. citizen or lawful permanent resident.**

Dates of Submission by:	Interview and/or Communication
September 8- November 1	**First Acceptance: December 11th****
*November 2- February 1	**Second Acceptance: February 26th****
February 2- April 1	**Final Acceptance: April 30th**

*Please note that applications for fall 2015 will be suspended during our late registration for spring semester and winter break. (December 8th- January 23rd)

** We are in the process of reviewing all packets during this time and you can expect to hear from us by May. There is no guarantee that you will be accepted; however, we suggest that you make financial arrangements and complete FAFSA in the event that you are offered admission, since payment of tuition, fees and books will be due in August.

ALL interested applicants must attend a Health Information Program Session to obtain an application for admission, which will be submitted to college Admissions staff. All documents that are submitted with the application packet, including but not limited to official transcripts and test scores, become the exclusive property of the college and will not be returned to the applicants.

<u>APPLICANTS SHOULD BE AWARE THAT ALL NURSING STUDENTS MUST BE ABLE TO MEET THE FOLLOWING CORE PERFORMANCE STANDARDS REQUIRED FOR THIS OCCUPATION BEFORE STARTING THE PROGRAM IN THE FALL.</u>

Core Performance Standards for the Classroom and Clinical Environment

Requirements	Examples
Critical thinking	1) Identification of cause/effect relationships in clinical situations. 2) Use of the scientific method in the development of patient care plans. 3) Evaluation of the effectiveness of nursing interventions. 4) Make decisions made on the nursing process.
Professional Relationships	1) Establishment of rapport with patients/clients and colleagues. 2) Capacity to engage in successful conflict resolution. 3) Peer accountability.
Communication	1) Explanation of treatment procedures, initiation of health teaching. 2) Documentation and interpretation of nursing actions and patient/client responses. 3) Correctly read aloud written instructions. 4) Ability to follow oral and written instructions.
Mobility	1) Movement about patient's room, work spaces and treatment areas. 2) Administration of rescue procedures-cardiopulmonary resuscitation. 3) Lift 20 pounds from the floor, carry and place on a surface 36 inches in height. 4) Stand from a seated position and walk 300 feet without any impairment. 5) Lift and support patient from a bed, stretcher or wheelchair safely. 6) Go from a standing position to a squatting position and vice versa. Walk up and down several flights of stairs and pivot. 7) Extend legs forward and backward to provide patient support as needed. 8) Move a patient from a bed, stretcher or wheelchair safely. 9) Push a stretcher with a patient without assistance. 10) Transport a patient in a wheelchair, bed or stretcher with oxygen or IV fluids.
Motor skills	1) Calibration and use of equipment, operation of computers, telephones, call lights, etc. 2) Therapeutic positioning of patients. 3) Put on and remove proper clothing and equipment correctly without assistance. (i.e. surgery suit, shoe covers, or other protective devices, etc.) 4) Demonstrate fine motor skills in manipulating small objects.
Hearing	1) Ability to hear monitoring device alarm and other emergency signals. 2) Ability to discern auscultatory sounds and cries for help.
Visual	1) Ability to observe patient's condition and responses to treatments. 2) Ability to see monitoring device alarm and other emergency signals.
Tactile Sense	1) Ability to palpate in physical examinations and various therapeutic interventions. Ex: Distinguish smells which are contributory to assessing and/or maintaining patient's health status, e.g. smell fire, wound drainage.
Self-Care	1) Implement universal precautions; follow established procedures for body hygiene.
Temperament/Awareness	1) Perform procedures on patients in pain from trauma, disease, or under the influence of drugs/alcohol. Maintain professional composure under stress. 2) Aware of the potential exposure to pathogens through bodily secretions, mucous and blood.

<u>Admitted students who are not able to perform all Core Performance Standards will have the admission offer for fall rescinded.</u>

A national background check and/or drug test will be required upon acceptance to the program and before starting class in the fall. Positive results on background check and/or drug test may prohibit participation in clinical experiences and may necessitate removal from the program.

Note: Prior criminal convictions may affect eligibility to take the State Board Examination for Licensure.

Non-Discrimination Policy:

Orangeburg-Calhoun Technical College does not discriminate on the basis of race, color, religion, sex, national origin, age, disability, or veteran status in its admissions policies, programs, activities or employment practices. Employee and applicant inquiries concerning the federal laws and their application to the College may be directed to the College's Affirmative Action/Equal Opportunity Officer, the Director of Human Resources, Marie Howell, 3250 St. Matthews Road, Orangeburg, SC 29118, 803-535-1207, who serves as the College's Section 504, Title II, and Title IX Coordinator.

ORANGEBURG-CALHOUN TECHNICAL COLLEGE

Nursing and Health Science Program Application Requirements for fall

✓ Attend a Health Information Program (HIP) Session.

✓ Applicants must be a high school graduate (certificate of completion does not qualify) or possess a GED.

✓ OCtech students or those transferring from other colleges must possess a **2.5** cumulative GPA from the last college where 12 or more credit hours (does not include developmental/remedial courses) were attempted.

Students qualifying to submit an application must meet one of the following criteria:

SAT scores of 480 verbal and 480 Math or ACT Reading of 19 and Math of 19.

OR

Eligible for BIO 210, ENG 101, MAT 155 and have taken the Test of Essential Academic Skills (TEAS V) with a minimum score of Proficient (58.7%). Students are allowed to take the TEAS test a maximum of two times for the year in which they are applying, UNLESS they participate in an approved TEAS Prep Course. Students participating in an approved TEAS Prep Course can take the TEAS test up to a total of four times during the designated application period. There is a minimum waiting time requirement of 15 days between each TEAS test attempt.

OR

Applicant successfully completed (minimal grade of C) 12 credit hours from the listed Nursing/Health Science Core Courses (Bio 210, Bio 211, Bio 225, Eng. 101, MAT 155/101, MAT 102, PSY 201, PSY 203, CPT 101/170 and Humanities) with a GPA of at least 2.75. 7 year time limits apply for Biology and Math courses.

OR

Completion of an Associate and/or Bachelor Degree or higher from a regionally or nationally accredited institution with a cumulative GPA of 2.75 or higher.

Once testing or GPA criteria meet minimum standards, applicants can submit a completed application packet to be considered for admission.

Applicants who have had two unsuccessful (failed) enrollments in any nursing/health science program will not be eligible to apply for admission. (See an admission counselor for further information). See Appeals Process located on our website at www.octech.edu . On the front page, under *Admissions*, click on *Nursing & Health Sciences* and then **Appeals Process.**

Applicants who have been offered admission to a nursing and/or health science program at OCtech more than once and did not enroll must petition the Program Coordinator in writing to request permission to reapply.

Guaranteed Track Admission (GTA)
Applicants who have completed all of the following courses, on the first attempt, with a program GPA of 3.25, within 5 years, will be admitted to the program once all course work is verified by an admission counselor:
- Eng101, Psy 201 & 203, Bio 210 & 211, Mat 155 and the Humanities Elective.
- Students who have had a prior enrollment in a nursing/health science program at OCtech or those who received a GTA offer previously are not eligible for GTA.
- If program is filled, applicants will be admitted the next fall semester.
- Deadline to apply for Guaranteed Track Admissions is January 29, 2015

*Qualified applicants who attended college outside of the United States and who meet citizenship requirements must provide an official translation transcript(s) from World Education Service. Fees for English translation of international transcripts must be paid by the applicant. (See Registrar for details).

Misrepresentation of information on any required forms or a willful attempt to misrepresent residency will make an applicant ineligible for admission to the Nursing/Health Science Clinical Programs.

ADN PROJECTED EXPENSES
(DOES NOT include tuition, travel to clinical, copy of SS card or birth certificate. Costs are <u>approximate</u> **and may change.)**
FRESHMAN YEAR

FALL	Uniforms	$600.00
	Lab Packet	$125.00
	Books	$1000.00
	CPR Certification/First Aid (OC Tech)	$200.00
	Hepatitis B Vaccine	Approximately ($56.00 per shot) $168.00
	Malpractice Insurance	$5.00
	Professional Organization Fee	$40.00
	Physical (depending on source)	$250.00
	Testing Fees	$225.00
	Background Check	$90.00
	Lab Fees	<u>$100.00</u>
	TOTAL	**$2803.00**
SPRING	Books/Course Packets	$300.00
	Testing Fees	$200.00
	Lab Packet	<u>$80.00</u>
	TOTAL	**$580.00**
SUMMER	Books/Course Packets	$250.00
	Testing Fees	$150.00
	Background check and Drug testing	$145.00
	IV Packet	Approximately $120.00
	Lab Fees	<u>$25.00</u>
	TOTAL	**$690.00**

SENIOR YEAR

FALL	Books/Course Packets	$325.00
	Testing Fees	$150.00
	Malpractice Insurance	$5.00
	Professional Organization Fee	$40.00
	Lab Packet	Approximately <u>$100.00</u>
	TOTAL	**$620.00**
SPRING	Books/Course Packets	$350.00
	Testing Fees	$200.00
	Lab Fees	$80.00
	HESII Exit Exam	$75.00
	Other testing for Review	$250.00
	State Board Application Fee	$97.00
	NCLEX-RN Application Fee	$200.00
	NCLEX-RN Review Course	$350.00
	1 – 2 x 2 Full Face B & W Photograph	$15.00
	Invitations (Pinning)	$10.00 - $15.00
	Uniform	$65.00
	Nursing Pin	$200.00 - $250.00
	Graduation Fee	<u>$50.00</u>
	TOTAL	**$1997.00**

APPROXIMATE TOTAL COSTS EXCLUDING TUITION
$6690.00

ALL COSTS ARE APPROXIMATE AND ARE SUBJECT TO CHANGE.

APPENDIX C: Admissions Application

ORANGEBURG-CALHOUN TECHNICAL COLLEGE

<u>IMPORTANT DATES TO REMEMBER</u>

- We will begin accepting packets starting **Monday, September 9, 2013.**

- **We <u>will not accept packets</u> December 4 - 13, 2013. The college will be closed December 14, 2013 – January 2, 2014 in observance of the Christmas Holidays.**

- **We <u>will not accept packets</u> January 2, 2014** due to registration.

- We will begin accepting packets again on **Monday, January 13, 2014.**

- **<u>Packets cannot be submitted through U.S. Mail</u>**

APPLY EARLY! All programs are open until filled. There are NO DEADLINES!

Packets are only accepted
<u>Monday – Thursday</u>
between the hours of
<u>8am – 4pm.</u>
<u>No</u> packets are accepted
<u>after 4pm</u>
And
<u>no</u> packets are accepted on <u>Fridays.</u>

Thank you!

ORANGEBURG-CALHOUN TECHNICAL COLLEGE

Do Not submit your packet until you have **All Items** on this c**hecklist; you are not able to add or remove any items once your packet has been submitted.**

Be sure to submit your checklist with your packet.

Student Name_____ **Student ID# or**

SS#_____

Program (1ˢᵗ Choice)_____ **(2ⁿᵈ**

Choice)_____

_____ Nursing/Health Science Application

_____ County Residency Form

_____ Copy of Driver's License

_____ **Official** ACT, SAT, and/or TEAS score reports.

_____ **Official** high school or GED transcript (in original sealed envelope); they must be signed and include a graduation/completion date.

_____ **Official** college transcripts (in original sealed envelope) for **_all_ colleges attended** and they must be current (show grades for all courses completed). **List all colleges attended including OCtech.**

_____　　　_____
_____　　　_____
_____　　　_____
_____　　　_____
_____　　　_____
_____　　　_____
_____　　　_____

(Indicate with an asterisk * beside any college where you've attempted a nursing/health science program).

**Official Use Only:**

Regular Admission _____   Guaranteed Admission _____

Very important information on the back!

Declaration of Citizenship or Legal Presence in the United States
Orangeburg-Calhoun Technical College

The South Carolina Illegal Immigration Reform Act (S. C. Code Ann. §59-101-430 (Westlaw 2008) prohibits those unlawfully present in the United States from attending a public institution of higher education in South Carolina and from receiving a public higher education benefit. **By signing this statement, you attest that you are a U.S. citizen or a permanent resident with a U.S. Government issued Green Card.** In addition, you will be required to submit documentation that supports your claim. Any student providing false information may be subject to dismissal from the college. Any student who is found to be unlawfully present in the United States will be dismissed from the college. In addition to signing this statement of Citizenship or Legal Presence in the United States, you must also provide the Office of Admissions with one additional form of evidence to verify citizenship or legal status BEFORE you will be permitted to register for classes at OCtech.

U.S. Citizens must provide ONE of the following to the Office of Admissions prior to registration:
1. A SC Driver's License (issued after January 2002) OR
2. A U.S. Birth Certificate OR
3. U.S. Passport.

I _____ , submitted an application packet for the _____
program;
        (please print)   (1st Choice)

_____ program. I understand that it is my responsibility to make sure all required
  (2nd Choice)

documents are available when my packet is submitted.

_____ _____ _____
_____
       Applicant Signature   Date   Counselor Signature   Date

The complete packet must be **submitted to an Admissions Counselor in**
The Office of Admissions - Building S

** APPLY EARLY! All programs are open until filled.
There are NO DEADLINES! **

Misrepresentation or omission of information will make an applicant ineligible for consideration.
*Official translation from World Education Services is required for all international transcripts.

(Contact our Registrar for details at 803-535-1220).

ORANGEBURG-CALHOUN TECHNICAL COLLEGE

STATE OF COUNTY RESIDENCY

PLEASE CHOOSE *ONE*

(1) I, _____ declare that I am an independent person (not supported by another individual). I currently reside in _____ County.

Do you own property in the above county?   Yes_____   No_____
Do you have a vehicle registered in the above county?   Yes_____   No_____
If so, date registration expires: _____

(2) I, _____ declare that I am a dependent person (supported by another individual). I currently reside in _____ County.

Do your parents, legal guardian or spouse own property in the above county?
Yes_____   No_____
Do your parents, legal guardian or spouse have a vehicle registered in the above county?
Yes_____   No_____
If so, date registration expires: _____

I understand that if requested by the college, I must submit the necessary paperwork to prove county residency. I also understand that falsification of information on this form will result in my application being disqualified for admissions to Orangeburg-Calhoun Technical College Nursing and/or Health Science programs.

Signature_____
Date_____

Definition of Independent/Dependent Person:

Independent – You provide more than half of your total support and you file South Carolina Income Tax.

Dependent – Someone other than yourself provides more than half of your total support and they claim you on their South Carolina Income Tax.

Note: Owning property and/or paying taxes on property in Orangeburg or Calhoun Counties while permanently residing in another county does not qualify for in county residency. If you have any questions please see our Registrar in Student Services – Bldg S.

Revised 7-11-12

ORANGEBURG-CALHOUN TECHNICAL COLLEGE

Session Date Attended: <u>Online Session</u>
Nursing/Health Science Application: Fall 2014 Admissions
Orangeburg-Calhoun Technical College

Please Print Clearly (Use blue or black ink)

Social Security Number_____ _____ _____   Last Name_____

First Name_____   Maiden or Middle Name _____

Permanent Address: Street_____ City_____ State_____ Zip_____

Mailing Address (if different) _____

Home phone_____ Cell phone_____ E-mail address_____

Permanent County of residence_____   Lived there since: month_____ year_____

HS graduate: yes ___no___ GED: yes ___ no ____ Year HS/GED attained: _____ HS attended_____

Are you a permanent U.S. citizen? _____   If so, when established: month_____ year_____

Are you a permanent South Carolina resident? _____ If so, when established: month_____ year_____

Have you lived in SC continuously for the past 12 months? yes____ no___

List <u>all</u> colleges attended, <u>including OCtech</u> (use additional paper if needed)

College	City/State	Dates Attended (from-to)	Currently Enrolled
1._____		mo.____ yr._____ to mo.____ yr._____	yes_____ no_____
2._____		mo.____ yr._____ to mo.____ yr. _____	yes_____ no_____
3._____		mo.____ yr. _____to mo.____ yr. _____	yes_____ no_____

Fall 2014 Program applying for: 1st choice_____ 2nd choice

_____

Signature _____ **Date** _____

Staff use only: Comments: _____

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Frequently Asked Questions about the Nursing/Health Science Application Process

1. What carries the most weight in determining if I get accepted into a selective admissions health science program?
   Your test score (TEAS V, SAT or ACT) and cumulative GPA (explained in seminar) have the greatest impact on your total rating.
2. Do I need to request additional official transcripts if I have done so in the past? Not if you have **current** transcripts, on file, in the Admissions Office.
3. How do I request an official GED transcript? Send a transcript request form (provided) to the State Department of Education in the state from which it was received.
4. Do I need to have all college transcripts sent if my transfer courses are included on my most recent transcript? Yes, an official transcript must be submitted from each institution attended.
5. When/where can I take the Compass or TEAS V tests? The Compass and TEAS V can be taken on the OCtech campus, as well as on other college campuses. Regardless of testing sites, you must meet with an OCtech admissions counselor for approval.
6. Are the tests timed? The TEAS V is timed. Compass is not timed.
7. How long will it take to get the test results? Results are printed upon completion of the test.
8. How many times am I allowed to take the tests? The Compass can be taken twice within five years. TEAS V can be taken twice in the year in which you are applying. **Retests must be taken prior to submission of application.**
9. Is there a fee to take the tests? The first Compass test is free; there is a $25 re-test charge for the second Compass test. There is a $55 fee for the TEAS V each time that you take it. (No checks)
10. How can I prepare for the TEAS V? Workbook and online preparation can be ordered through www.atitesting.com.
    OCtech offers TEAS V prep courses. (See your advisor for details). Resource materials are on reserve in the OCtech's Library. Please see an admissions counselor for additional information.
11. How long are the test scores valid? Compass scores are valid for five years from the test date.
12. Will SAT or ACT scores be considered? Yes, official reports. (Please refer to criteria sheet).
13. How do I begin taking related courses for a health science program? Submit your admissions application along with official transcripts and/or official test results.
14. Do I have to complete all of the related courses prior to applying for a health science program? No, however you are encouraged to complete as many related courses as possible prior to entering a health science program.
15. Will my application be carried over to Fall 2015 if I am not accepted for fall 2014? No, you must reapply.