# A One-Week Freshman Boot Camp That Increases Second Year Retention Rates by 5% and 4-Year Graduation Rates by 10%

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"As a long-time member of the Consortium for Student Retention Data Exchange (CSRDE), we find great value in participating in their data collections. Using CSRDE reports, we compare our retention and graduation performance to peer institutions. Additional institutional and student characteristics provided in the CSRDE summaries are also important components of our benchmark comparisons."

**~ Bernie Braun**
Director of Institutional Research, Louisiana State University

"The 2018 National Symposium on Student Retention (NSSR) in Salt Lake City was my first exposure to the wealth of information and collegiality of the CSRDE membership. I learned so much from the keynotes and sessions and can't wait for this year's conference in New Orleans."

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*Sheri Wischusen is co-author of "A One-Week Freshman Boot Camp That Increases Second Year Retention Rates by 5% and 4-Year Graduation Rates by 10%."*

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# Abstract

Retention of college students in STEM majors is strongly linked to their experiences and success in introductory courses. The Biology Intensive Orientation for Students (BIOS) bridge program, a five-day pre-freshman program at Louisiana State University (LSU), has consistently increased the success of students in introductory courses, their retention to the second year of college, and four-year graduation rates. In addition to overall gains, this program has led to specific gains for underrepresented groups – ethnic, socio-economic and first-generation college. Data show that biology majors who participated in BIOS immediately prior to their first semester were more likely to be successful in an introductory science course, more likely to remain in the major than their peers at LSU, and more likely to graduate in four years as biology majors.



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# Introduction

Being able to successfully navigate each year of a college career and graduate in a timely manner are important issues to entering students and parents. Retention/persistence and graduation rates are also important for institutions and are commonly used metrics for student success at colleges and universities (Porter & Swing, 2006; Tinto, 2006). Yet research shows that, despite many efforts, these measures continue to decline. There are several possible explanations for this phenomenon, mostly having to do with changes in student preparedness. In the last 30 years there have been steady and substantial increases in the percentage of high school graduates who enroll in college (Bound, Lovenheim, & Turner, 2010) and these new students include those with weaker high school records. In 2017, only 21% of high school graduates met the ACT STEM Benchmark (ACT, 2017). Students typically enter college without being taught critical, higher-order thinking (Conley, 2008; Kirst, 2004; Venezia & Jaeger, 2013), how to work under pressure (Jensen & Moore, 2008; Thompson, Orr, Thompson, & Grover, 2007), self-efficacy (Bandura, 1997; Choi, 2005) or self-regulation (Klassen, Krawchuk, & Rajani, 2008; Zimmerman, 2002). Multiple studies have shown that one of the major points at which college students leave academia is after their first year (National Student Clearinghouse Research Center, 2017).

Many freshmen also have unrealistic expectations of college and their preparation for its rigors and challenges. Sanoff (2006) notes that high school teachers and college faculty differ substantially in their assessments of students' ability to do college-level work; 32% of the faculty in the study thought students were not well-prepared in math, while only 12% of the surveyed high school teachers thought the same. One professor responded with "Students don't know how to study, how to organize and retain the information, or how to apply it" (Sanoff, 2006, p. 3). Introductory science courses are often particularly problematic because students who enroll as science majors in universities have typically been very successful high school students. K-12 culture often insulates students from failure; they have never had to experience failing a task so have no mechanism for coping with and learning from falling short (Upcraft, Gardner, & Barefoot, 2005). Because of difficulties that students encounter, they often drop or fail college introductory courses, change their major, and/or take longer than four years to graduate. This trend becomes increasingly costly, therefore important, to postsecondary institutions (Cuseo, 2003).

## Underrepresented Groups

Declining retention and graduation rates are even more concerning for members of groups underrepresented in science (Kahlenberg, 2004; ACT, 2017; D. Thompson et al., 2007). Research has shown that all students are at risk during the critical first year, but underserved groups – Underrepresented Minority (URM), Lower Socioeconomic Status (LSES) and First Generation College student (First Gen) – are the most likely to be unsuccessful. Data for these discrepancies are manifold and complicated, and identification with two or more underserved groups poses even more problems (Kahlenberg, 2004; ACT, 2017; Walpole, 2008).

Standardized tests, ACT and SAT in particular, are coming under scrutiny toward underserved groups. Wealthier students have better opportunities to prepare for such tests, and the exams do not test what is learned in the classroom (Venezia & Jaeger, 2013). ACT sets Readiness Benchmarks which represent the level required for a student to "have a 50% chance of obtaining a B or higher or about a 75% chance of obtaining a C or higher in corresponding credit-bearing first-year college courses" (ACT, 2017, p. 19). However, fewer than 25% of underserved students met three of the benchmarks, while more than 50% of non-underserved students met at least three; and only two percent of students who were identified within all three underserved groups met the STEM benchmark of 26 (ACT, 2017).

 

A feeling of "belonging" is also important to the persistence and success of all students (Pascarella, Pierson, Terenzini, & Wolniak, 2004; Tinto, 1975, 2006, 2017) and students from underserved groups face added difficulties. Students who are LSES are often the first in their families to attend college, therefore do not have their parents' experiences to rely on for advice (D. Thompson et al., 2007). They are more likely to have to work more hours and therefore have less time to study or participate in campus student organizations (Walpole, 2008). Walpole (2008) found that URM students who were also LSES also had less contact with faculty, and had lower grades than their high SES peers or all African American students. The imposter phenomenon, the feeling that one does not deserve a high achievement and/or fear of failure, was first recognized by Clance and O'Toole (1988) and was confirmed in college students by Ross, Stewart, Mugge, & Fultz (2001). This phenomenon was then shown to also negatively impact the academic success of underrepresented minority students by Peete, Montgomery, & Weekes (2015).

## Freshman Programs

Several programs have been developed to focus help on that critical first year (Cabrera, Miner, & Milem, 2013; Chevalier, Chrisman, & Kelsey, 2001; Fletcher, Newel, Newton, & Anderson-Rowland, 2001; Thompson & Consi, 2007). Most of these fall into one of two categories: summer-long bridge programs or first-semester seminars. While both these models offer the kinds of help that incoming students need in their transition from high school to college, rarely is either feasible for large state universities. Summer programs range from 4 to 6 weeks and are typically manageable only for a relatively small number of students. They are also costly to students and faculty. This model poses conflict with work schedules for incoming students who need to make money during their last summer at home, while requiring university staffing for most of the summer. Other problems with summer bridge scheduling involve university resources, such as dining and housing, during a time of year those offices typically consider "down time." Thorough reviews of summer bridge programs have been done by Ashley, Cooper, Cala, and Brownell (2017), Cabrera et al. (2013), and Johnson & Stage (2018).

Porter & Swing (2006) have published a large study of freshman seminars. These seminars can be less expensive to offer, but still prove to be staff-intensive if offered for large enrollments required by state universities. The most serious problem for this type of program is that the intervention is often too late; students do not take the message seriously until after their first exams of the semester, when they have been less successful than they expected. Therefore, these interventions are often not as useful as intended (Porter & Swing, 2006).

## The BIOS Program

The BIOS Program at Louisiana State University was designed to help incoming students navigate the transition from high school to college by giving them tools and strategies to succeed in the introductory biology course prior to the semester starting, all within a five-day intensive format that combines best practices gleaned from summer-long and first semester freshman seminar formats. BIOS has been operating for 13 years, with a total of over 3,500 participants to date. The program schedule (Appendix), as modified from Wischusen & Wischusen (2007), utilizes content lectures and examinations, as well as provides information on effective learning strategies and sessions, to immerse students in an experience similar to the first semester of college. BIOS offers a quick "reality check" to students who assume that the same learning strategies they used in high school would be effective in college (Jensen & Moore, 2008). Students preview course expectations and the pace of college courses, while learning what they need to do in order to be successful prior to the start of their first semester (Pascarella & Terenzini, 2005; Tinto, 1975). They interact with university faculty and staff and are urged to explore campus resources before they need to seek out help

 

(Xu, 2016). Additionally, as a result of group work and team building, students begin the process of forming learning communities (D. Thompson et al., 2007) and experience cultural diversity (Reason, Terenzini, & Domingo, 2006; Zepke & Leach, 2005). Peer mentors are an integral part of the BIOS model because of their positive impacts on incoming students (Bhattacharya & Hansen, 2015; Budny & Rocafort, 2006; Glasner, Halperin, & Hall, 2006). The LSU program recruits graduate students from the College of Science and undergraduate upperclassmen who participated in BIOS in their freshman years to serve as near-peer and peer mentors respectively.

Unlike other interventions that rely on considerable institutional support (Cabrera et al., 2013; Fletcher et al., 2001; Maton, Pollard, Weise, & Hrabowski, 2012), LSU's BIOS Program is largely self-funded, with scholarships for students with financial need available through donations to the LSU College of Science. BIOS participants are charged a fee ($350 in 2018), which covers the textbook used in the focal course, stipends for peer mentors and staff, promotional and program materials, and meals for the week. Optional on-campus housing is available at an additional fee. Because the amount of funding is directly proportional to the number of students, the program is almost infinitely scalable to meet the needs of large departments, majors and/or institutions.

A big drawback in making decisions about replicating a freshman intervention program has been the lack of longitudinal assessment. Several studies have pointed out the lack of reproducibility of program successes when published data only included "cross-sectional" or one-time surveys (Astin & Lee, 2003; Cabrera et al., 2013). Tinto (2006) stressed the need to use both formative and summative assessments for all students, but also for groups of students who have different backgrounds and needs from the majority. Administrators of the LSU BIOS program have tracked participants and their entering cohort through graduation in order to gauge long-term academic effects of this "boot camp" (Wischusen & Wischusen, 2007; Wischusen, Wischusen, & Pomarico, 2010), including first semester grades, retention to the second year and four-year graduation rates. The effects of BIOS on student self-efficacy and self-regulation were surveyed by Wheeler and Wischusen (2014)

## Research question:

Is the BIOS Model effective for all groups of students, including underserved groups – underrepresented minorities (URM), low socioeconomic status (LSES) and first generation (First Gen) college students?

# Methodology

## Recruitment and Registration

The focal course for LSU BIOS is BIOL 1201 – Introductory Biology for Science Majors I, which is required for all biology majors but is also a service course for students in a wide variety of majors. The enrollment in BIOL 1201 each fall semester averages 1,800 – 2,000 ("LSU Course Offerings," 2018), with biological sciences majors comprising about 35% of the course enrollment. BIOS program recruitment consists of email and face-to-face contact with all admitted first-year students who indicate a field of study that requires BIOL 1201. Any BIOL 1201 student is eligible to participate in BIOS, and the program roster is filled on a first come/first served basis. BIOS's enrollment is typically 75 – 80% biological sciences majors.

 

## Schedule

BIOS is held two weeks before the start of the fall semester and immediately before campus-wide orientation programs so as not to overlap with other student events. Check-in and welcome events on Sunday afternoon and evening help participants to orient to the fast pace of BIOS, and they are given the first of nine 1.5 hr content lectures before dismissal. The Monday – Friday schedules include the remainder of the content lectures, three exams, and follow-up exam discussions (Appendix). Also in this week they have sessions on time management, metacognition, study skills, and group interactions.

## Data Collection

This research compares BIOS participants who had declared biology as their major to other declared biology majors in their BIOL 1201 cohort, for the latest three academic years for which we have four-year graduation rates, 2011, 2012 and 2013. Demographic and academic data of BIOS participants, as well as the entire entering freshman cohort, are collected each year from the campus office of budget and planning. All data are collected under IRB compliance (LSU IRB #E3945) and student records are kept in locked offices and/or on password-protected computers and hard drives.

BIOS alumni are contacted at two points to assess their feelings about having participated in the program: at the end of their first fall semester and in the spring semester of their fourth year. The responses are used formatively for subsequent BIOS programs, and summatively to gauge the helpfulness of elements within the program.

During the summers of 2011, 2012, and 2013, there were 707 BIOS participants out of a total of 2,320 first year students who identified as biology majors at the start of the fall of their first year (Table 1). This includes 471 URM, 533 1st Gen, and 535 students who were Pell Grant-eligible (Pell). Of these students, 1,656 were enrolled in BIOL 1201 (Introductory Biology for Science Majors I) during their first fall, and 580 of these participated in the BIOS program. This included 295 students from under-represented groups, 359 first generation college students, and 349 Pell students. For the sake of this study, Pell Grant eligibility was used as the measure of LSES ("Federal Pell Grant Information," 2018). The difference in the number of declared biology majors and the number of biology majors enrolled in BIOL 1201 is a combination of students with AP or dual-enrollment credit for BIOL 1201 and students who do not meet the pre-requisite for the course (ACT minimum = 23).

Table 1: *Numbers and demographics of study participants and academic backgrounds of first year, fulltime fall students whose initial major was Biological Sciences. * BIOS significantly different from Non-BIOS, Wilcoxon p ≤ 0.05*

| | All Students | URM | FirstGen | Pell | BIOS Participants |
|---|---|---|---|---|---|
| **Biology Majors Enrolled in BIOL 1201 First Fall** | 1,656 | 295 | 359 | 349 | 580 |
| **All students who declared Biology as their original major** | 2,320 | 471 | 533 | 535 | 707 |

| | Act Score Non-BIOS | ACT Score BIOS | HS GPA Non-BIOS | HS GPA BIOS |
|---|---|---|---|---|
| **Biology Majors Enrolled in BIOL 1201 First Fall** | 27.08 (2.907) | 27.42 (2.978)* | 3.55 (0.377) | 3.60 (0.357)* |
| **All students who declared Biology as their original major** | 26.16 (3.337) | 26.99 (3.053)* | 3.51 (0.381) | 3.58 (0.367) |

 

## Data Analysis

To attempt to answer our research question, we looked at a series of indicators of student success across time comparing BIOS and Non-BIOS participants. These indicators included final grade in BIOL 1201, retention to the second year in the major, and four-year graduation rate in the major. Our analysis included both univariate comparisons and multiple regressions to allow us to investigate the interactions of numerous variables. All analyses were done using JMP version 14.

# Results

**Is the BIOS Model effective for all groups of students, including underserved groups – underrepresented minorities (URM), low socioeconomic status (LSES) and first generation (First Gen) college students?**

An initial analysis shows that BIOS participants earned higher grades in BIOL 1201 and had a higher second year retention rate in the biology major than non-BIOS participants enrolled in BIOL 1201 at the start of their first year (Figure 1A, and B). Additionally, BIOS biology majors had a higher four-year graduation rate compared to other students who were declared biology majors at the start of the first year (Figure 1C).

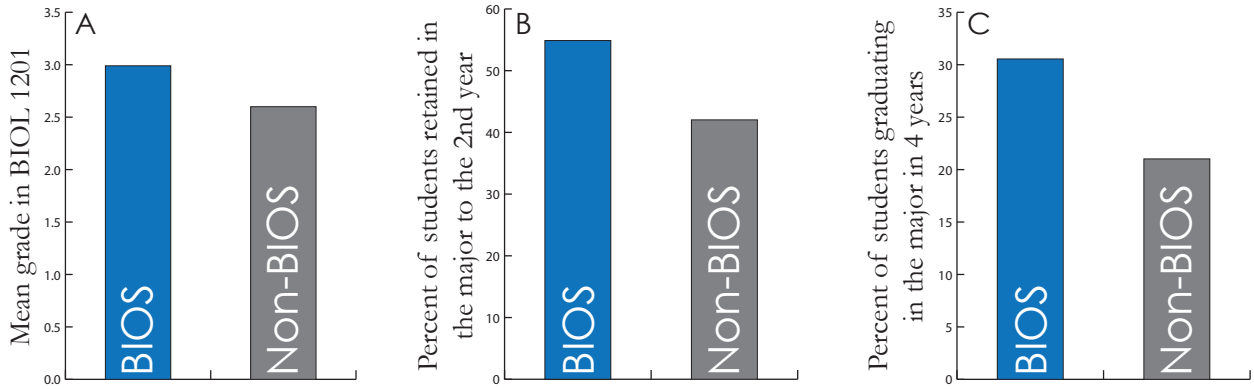


*Figure 1:* Mean grade in BIOL 1201 (A), BIOS =2.99, Non-BIOS=2.60, t-test, $p<0.0001$, percent of students retained in the biology major to the second year, (B), BIOS=54.88%, Non-BIOS=42.03%, Chi-square test, $p<0.0001$ and percent of students graduating in the major in 4 years (C), BIOS=30.55%, Non-BIOS=21.02%, Chi-square test, $p<0.0001$. All compare BIOS participants with Non-BIOS students. All were first-year full-time students initially enrolled during the falls of 2011, 2012 and 2013

There are several correlations between the variables (URM, First Gen and Pell) and we wanted to understand the effectiveness of the BIOS program while accounting for a number of student characteristics. A multiple regression analysis including High School GPA (HS GPA), ACT Composite Score (ACT), BIOS participation (BIOS), Underrepresented Minority status (URM), First-generation college student (First Gen), and Pell Eligibility (Pell). The combined interactions of BIOS*URM, BIOS*First Gen, and BIOS*Pell status were included in the model (Table 2). The results of this analysis for grade in BIOL 1201 indicate the HSGPA, ACT, and participation in BIOS are all positively correlated with grade in BIOL 1201. First Gen and Pell are both negatively correlated with grade in BIOL 1201 (Table 2). The combination of BIOS participation with either First Gen or Pell resulted in the amelioration of the negative impact of either of those variables (URM or First Gen) on student grade in BIOL 1201 (Table 2).

 

Table 2: *Results of multiple least squares regression for the dependent variable grade in BIOL 1201*

| Term | Parameter Estimate | Standard Error | t Ratio | Pr>t |
|---|---|---|---|---|
| **Intercept** | -4.485234 | 0.299743 | -14.96 | <0.0001 |
| **HS GPA** | 1.3668206 | 0.071244 | 19.19 | <0.0001 |
| **ACT** | 0.0855133 | 0.009001 | 9.50 | <0.0001 |
| **BIOS** | 0.1897738 | 0.039722 | 4.78 | <0.0001 |
| **URM** | 0.0088871 | 0.035686 | 0.25 | 0.8034 |
| **First Gen** | -0.087494 | 0.033752 | -2.59 | 0.0096 |
| **Pell** | -0.075853 | 0.03428 | -2.21 | 0.0271 |
| **BIOS*URM** | 0.0108767 | 0.035056 | 0.31 | 0.7564 |
| **BIOS*First Gen** | 0.0417922 | 0.033697 | 1.24 | 0.2151 |
| **BIOS*Pell** | 0.0505593 | 0.034136 | 1.48 | 0.1388 |

The results of the multiple regression analysis for retention to the second year in the major indicate the HS GPA, ACT, and participation in BIOS are positively correlated with retention to the second year, while First Gen status is negatively correlated with retention to the second year in the major (Table 3). The combination of BIOS participation and First Gen resulted in the amelioration of the negative impact of this variable (First Gen) on retention in the major to the second year. For this logistic regression model the parameter estimates are the log of the odds for retention in the major to the second year. For second year retention in the major, BIOS participation is estimated to increase the odds by 18%, and being a First Gen student reduces the odds of retention in the major to the second year by 13%, with the combination having no impact on the odds of being retained in the major to the second year.

Table 3: *Results of nominal logistic regression for the dependent retention to the second year in major*

| Term | Parameter Estimate | Standard Error | ChiSquare | Prob>ChiSq |
|---|---|---|---|---|
| **Intercept** | -6.9999603 | 0.5218858 | 179.90 | <0.0001 |
| **HS GPA** | 1.21419273 | 0.1291841 | 88.34 | <0.0001 |
| **ACT** | 0.09486072 | 0.0150159 | 39.91 | <0.0001 |
| **BIOS** | 0.17011292 | 0.0715603 | 5.65 | 0.0174 |
| **URM** | 0.03604803 | 0.0630251 | 0.33 | 0.5673 |
| **First Gen** | -0.1237312 | 0.0620755 | 3.97 | 0.0462 |
| **Pell** | -0.085758 | 0.0617888 | 1.93 | 0.1652 |
| **BIOS*URM** | 0.01320453 | 0.0618326 | 0.05 | 0.8309 |
| **BIOS*First Gen** | -0.0205692 | 0.061981 | 0.11 | 0.7400 |
| **BIOS*Pell** | -0.0200916 | 0.0616583 | 0.11 | 0.7445 |

The results of multiple regression analysis for 4-year graduation in the major indicate the HSGPA, ACT, BIOS participation are all positively correlated with students graduating as biology majors in four years (Table 4). First Gen is negatively correlated with students graduating as biology majors in four years (Table 4). The combination of BIOS participation and First Gen resulted in the amelioration of the negative impact of this variable (First Gen) students graduating as biology majors in four years. Based on the parameter estimates. Participation in BIOS is estimated to increase the odds of graduating in the major in four years by 35%, and being a First Gen student is estimated to reduce the odds of graduating in the major in four years by 23%, with the combination having no impact on the odds of graduating in the major in four years.

 

Table 4: *Results of nominal logistic regression for the dependent variable 4-year graduation as biology majors*

| Term | Parameter Estimate | Standard Error | ChiSquare | Prob>ChiSq |
|---|---|---|---|---|
| **Intercept** | 10.9128384 | 0.7071241 | 238.17 | <0.0001 |
| **HS GPA** | 2.0336874 | 0.181744 | 125.21 | <0.0001 |
| **ACT** | 0.0860468 | 0.0178247 | 23.30 | <0.0001 |
| **BIOS** | 0.30289738 | 0.0894821 | 11.46 | 0.0007 |
| **URM** | 0.03550763 | 0.0769748 | 0.21 | 0.6446 |
| **First Gen** | - 0.2095369 | 0.0748593 | 7.83 | 0.0051 |
| **Pell** | - 0.0898692 | 0.0740814 | 1.47 | 0.2251 |
| **BIOS*URM** | 0.0669784 | 0.0755352 | 0.79 | 0.3752 |
| **BIOS*First Gen** | 0.0681134 | 0.0746684 | 0.83 | 0.3617 |
| **BIOS*Pell** | 0.0801567 | 0.0738067 | 1.18 | 0.2775 |

At the end of their first semester and eighth semester after BIOS, students were asked through email, "Are you glad you did BIOS, and do you have any advice for the next class of incoming science majors regarding BIOS?". Student responses have included the following:

*"I participated in the [BIOS] program when I was an incoming freshman in 2014. It was a wonderful program that not only allowed me to get a head start on the material we would be learning in our intro biology classes, but also allowed me to meet people and professors that were in my field. It was a truly rewarding experience."*

*"My words of wisdom: BIOS is undoubtedly the best decision I made before coming to college. I flew through high school without much effort and I hadn't developed many study habits. I am also the first person in my family to go to college. All of this in mind, I had no idea what to expect of LSU, a science major, or college in general. Through this program, I was taught time management, study techniques, and was given insight into my introductory classes. I know that I would not have been as successful in my college career as I am now had I not attended BIOS."*

*"I am still a biology major and I have added two minors (Business Administration and Chemistry). I am graduating in May of this year and I am starting Dental School in July. BIOS was such a great program, I know I would not have had the success that I did in college without it. Thank you so much for recognizing the need for this program and implementing it."*

*"In my opinion, one of the most vital parts of the program is the practice exams. As I am sure you know, high school tests are much different than college tests. Getting a feel for the depth on which I would be tested was an advantage I had over the average student who did not attend BIOS."*

*"Looking back, I definitely feel BIOS was beneficial to me, even though I was reluctant to enter in the first place. I just feel it gave me a leg up on everyone and brought me up to college speed before the real thing. Also, I got to meet professors as well as many other people, in fact, three of the people I met at BIOS are still very close friends of mine."*

 

# Conclusions

Participation in the BIOS program has previously been shown to have a positive impact on student success (Wischusen & Wischusen, 2007; Wischusen et al., 2010). The more comprehensive and in-depth longitudinal analyses provided in this paper reinforce that the BIOS program is very effective at improving success in introductory biology courses, specifically BIOL 1201. Additionally, when BIOS participants are either First Gen or LSES, participation in the program closes the achievement gap, resulting in these students earning grades equivalent to students who are not from First Gen or LSES groups. This is very noteworthy as introductory science courses are often described as gateway courses that prove to be barriers to completing majors in the sciences for many students from underserved groups. The same pattern holds true when we looked at retention in the major to the second year or four-year graduation rate in the major. Participants in the BIOS program were estimated to increase their odds of being retained as biology majors at the start of their second year by 18% and to increase their odds of graduating in 4 years as biology majors by as much as 35%. First Gen students participating in the BIOS program were retained to the second year and graduated in four years at rates similar to the non-First Gen students. Again, participation in the BIOS program appears to have closed the achievement gap for these students.

The BIOS program appears to not only be effective at increasing student success in introductory science courses, but it also has a positive impact on students both being retained in science majors, as well as graduating in four years as science majors.

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# Appendix
*Typical BIOS Program Schedule*

## SUNDAY
9:00 AM - BIOS Mentor Training

Student Program
- 10:00-2:00 PM - Housing Check-In
- 1:00-3:00 PM - Program check-in; Student Union
- 3:30 PM - Group Work
- 5:30 PM - Program Dinner
- 7:00 PM - Lecture 1

Parent Program
- 2:00 PM - Parent Check-in; Student Union
- 3:00-5:00 PM - Parent Meeting

## MONDAY
*Morning*
- 7:00 - Breakfast
- 8:00 - Lecture 2
- 9:30 - Break
- 9:45 - Learning Strategies Discussion 1

*Afternoon*
- 11:00 - Lunch
- 12:30 - Study time/group work
- 2:00 - Student Discussion 1
- 4:00 - Lecture 3
- 5:00 - Dinner

## TUESDAY
*Morning*
- 7:00 - Breakfast
- 8:00 - Exam 1
- 9:30 - Lecture 4
- 11:00 - Lunch

*Afternoon*
- 12:15 - Learning Strategies Discussion 2
- 1:30 - Discussion of Exam Results
- 2:30 - Study time/group work
- 4:00 - Lecture 5
- 5:30 - Dinner

## WEDNESDAY
*Morning*
- 7:00 - Breakfast
- 8:30 - Lecture 6
- 10:00 - Undergraduate Research
- 11:00 - Pods 1-6 Lab
- 11:00-3:00 - Lab Tours, Lunch, Lab

*Afternoon*
- 3:00 - Study time/group work
- 4:00 - Lecture 7
- 5:30 - Dinner

## THURSDAY
*Morning*
- 7:00 - Breakfast
- 8:00 - Exam 2
- 9:30 - Lecture 8
- 10:30 - Lab tours 2

*Afternoon*
- 12:00 - Lunch
- 1:00 - Discussion of Exam Results
- 2:00 - Study time/group work
- 4:00 - Lecture 9
- 5:30 - Dinner

## FRIDAY
*Morning*
- 7:00 - Breakfast
- 8:00 - Exam 3
- 10:00 - Student Discussion 2
- 12:00 - Final Exam Results

*Afternoon*
- 1:00 - Awards Ceremony & Program Conclusion

 

# About the Consortium

The Consortium for Student Retention Data Exchange (CSRDE) is an association of two-year and four-year institutions with the common goal of achieving the highest possible levels of student success through collaboratively sharing data, knowledge and innovation. Founded in 1994 by a small group of Institutional Research directors as a data exchange of college retention and graduation data, our first report was published in May of 1995.

The Consortium has broadened its mission to include sharing not only data, but knowledge and innovation. We now have a diverse membership of about 350 colleges and universities and compile four retention reports each year. As well as hosting the annual National Symposium on Student Success and Retention, we host a webinar series and have created a dynamic electronic book called *Building Bridges for Student Success: A Sourcebook for Colleges and Universities*.

CSRDE is coordinated by the Center for Institutional Data Exchange and Analysis (C-IDEA) at the University of Oklahoma. C-IDEA is also the program evaluator for the Oklahoma Louis Stokes Alliance for Minority Participation (OK-LSAMP) program, which is funded by the National Science Foundation.

The mission of the University of Oklahoma is to provide the best possible educational experience for our students through excellence in teaching, research and creative activity, and service to the state and society.

 


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