



# BIOS08

**Biology  
Intensive  
Orientation for  
Students**

Would you like to get a jump start on your first semester at LSU and a head start on medical or graduate school?

[www.biology.lsu.edu/introbio/bios/home.htm](http://www.biology.lsu.edu/introbio/bios/home.htm)

BIOS is an intensive one-week program specifically designed to help Biological Sciences students make the transition to college, learn skills for professional or graduate school, and take the stress out of the first semester at LSU.

- Gain important learning/study skills.
- Get a jump start on course content.
- Meet faculty, graduate students, and staff.
- Receive a copy of the BIOL 1201 textbook & a “clicker”  
*(\$200 value)*

**Program Dates:**  
August 10 - 15, 2008

**Program Cost:**  
\$400, plus \$135 for housing if needed  
*Financial Aid Available. See the Website*

BIOS combines course lectures, sessions on effective and efficient learning, and information on becoming a successful student in an effort to provide participants with tools and skills required to excel.

# Biology Intensive Orientation for Students (BIOS): A Biology “Boot Camp”

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Updated from Wischusen and Wischusen, 2007. Biology Intensive Orientation for Students (BIOS):

A Biology “Boot Camp,” *CBE—Life Sciences Education*, 6, 172-178.

**The Biology Intensive Orientation for Students (BIOS) Program was designed to positively impact the success of incoming freshman biology majors by giving them tools and strategies to succeed at Louisiana State University. The program combines content lectures and examinations for BIOL 1201 - Introductory Biology for Science Majors, as well as learning styles assessments and informational sessions to provide the students with a preview of the requirements of biology, and the pace of college. BIOS participants succeed (grade of A, B or C) in their biological science courses and remain on track through their sophomore year at a significantly higher rate than other BIOL 1201 students.**

Incoming freshman science majors are increasingly unprepared for college work and enter college with optimistic goals of how much they will study as well as unrealistic ideas of how much work will be expected of them by college instructors. They have been successful in high school with minimal effort and see no reason to change their study habits, or lack thereof, for university coursework.

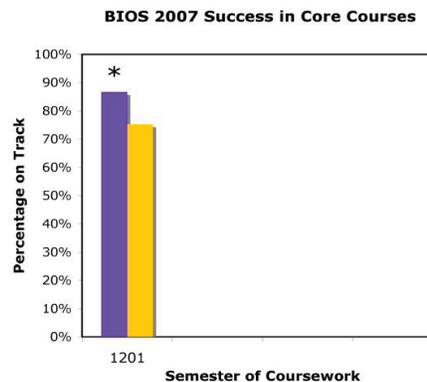
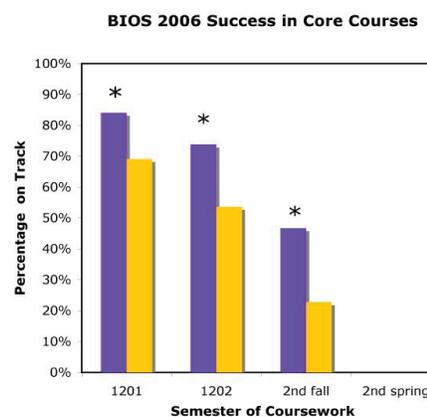
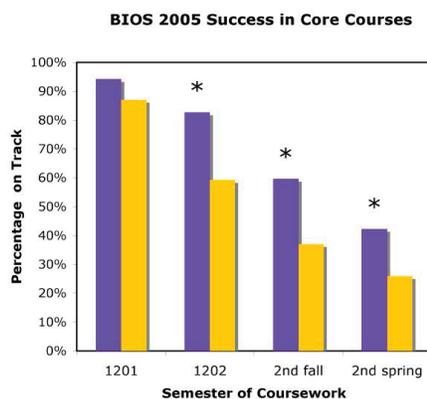
BIOS helps to ease the transition from high school to college. The program includes lecture material from the content normally presented during the first weeks of BIOL 1201, along with three short exams on the material. The students also have presentations by individuals representing relevant offices around the LSU campus, as well as other professionals who offer advice in specific areas.

In the past few years, over 25% of students in BIOL 1201 have been unable to earn a C or better grade in the course, leading to a high DFW rate (grade of “D”, “F” or Withdrawal from the course).

The success of students who participated in the first three years of the BIOS Program clearly shows that a one-week orientation can have a beneficial impact on student performance and retention.

BIOS groups had higher final grades in BIOL 1201 as well as higher overall GPAs at the end of the fall semester (Wischusen and Wischusen, 2007). Perhaps the most striking difference between the BIOS students and those in the control group is the percentage of the students “on track” in the major

after the sophomore year (Fig. 1). At LSU, in order for a student to be considered “on track” to graduate in the biological sciences major in four years, he or she must complete the core sequence of four courses by the end of the sophomore year. These courses are Introductory Biology (BIOL 1201 and 1202), General Microbiology (BIOL 2051) and Genetics (BIOL 2153). The BIOS participants showed a significantly higher rate of being on track after their fourth semester of college than other students.



**Fig. 1.** Success Rates of BIOS students v. an academically similar Control Group through last semester they have completed. Purple = BIOS; Gold = Control. \* Sig.  $p < .002$ , Binomial Test.

## BIOS Participant Comments:

“I realize that BIOS put me ahead of many of the students who did not attend the program; this allowed me to help them, which in turn helped me grasp the material even further. Most important, was that I made some really great friends at BIOS. It’s a great opportunity to learn and meet people who are as serious about learning as you are. I really feel that if I had not attended your program I would not love LSU as much as I do.”

“I have to say that it helped me out a lot. Knowing people in my Biology class was great, and I actually have most of my science classes with other students from BIOS. I have ‘aced’ all of my first exams, which I give BIOS credit for, because I used the study and learning strategies provided by the Center for Academic Success.”

“I definitely think that BIOS was worth my time, especially after receiving A’s on all of my first exams, not just Biology. I find just knowing a little bit about the information before hand helps out a lot even though I have a Biology teacher with a completely different style of teaching. I also found the study skills area of the program helpful because I hate to say it, but they really do work. They take a lot of the pressure off of studying so much information.”