



## **BSC and SEPA\* Grant Offering Fall 2007 Graduate-level course for High School Teachers**

Bridgewater State College is offering BIOE 514-001, Microbiology in the High School Classroom. Microbiology as a science influences multiple fields in biology, including genetics, biochemistry, molecular biology, clinical medicine, and environmental biology because microorganisms are ubiquitous and critical organisms in the maintenance of the biosphere.

This course is designed for the high school teacher who would like to learn microbiology and then use its principles in the classroom to illustrate multiple concepts about the biosphere (including those that meet the Massachusetts state standards) and to excite student learning in biology.

Teachers need not have background or course work in microbiology, but a college-level course in cell biology or introductory biology would be helpful and is strongly recommended.

**OBJECTIVES:** In this course you will:

1. Learn the relationship between structure and function in a microbial cell.
2. See how microbial metabolic pathways are the foundations for our thinking about basic energy usage in a cell.
3. Learn how studies of microbial genetics led to major advances in our knowledge of this field.
4. Learn about the interaction of microorganisms with their environment and the effects this interaction has on the biosphere, including you!
5. Study the contributions of microbiology to the biomedical, agricultural, veterinary, biotechnological and environmental fields
6. Use the guided inquiry model from BSC CityLab to perform a variety of experiments that can be performed in the high school classroom including those dealing with microbiology's importance
  - i. in the clinic as both disease organisms and as producers of antibiotics,
  - ii. in the environment as decomposers and recyclers of organic matter,
  - iii. in genetics as model systems to understand the major paradigms of evolution and transfer of genetic information, and
  - iv. in the biotech world as 'gene expression systems' for production of new pharmaceuticals.

**DATES:** Wednesday Evenings. September 5<sup>th</sup> – December 19<sup>th</sup> from 4:45 – 7:25 PM.

**LOCATION:** Bridgewater State College, Conant Science Building, Room 207

**For further information contact BSC CityLab at 508-531-2635 or [CityLab@bridgew.edu](mailto:CityLab@bridgew.edu)  
To learn more about BSC CityLab Activities visit our web site at [webhost.bridgew.edu/CityLab](http://webhost.bridgew.edu/CityLab).  
To register for this course contact The Registrar's office at 508 531-1231.**

**Enrollment is limited. Please register early.**

\*SEPA, is a Science Education Partnership Award through the National Center for Research Resources, National Institutes of Health

**Fall 2007**  
**Registration/Academic Advising Form**

By published deadlines, please submit completed form to: Registrar's Office, Boyden Hall, Room 003, Ground Floor  
Bridgewater State College, Bridgewater, MA 02325  
Phone: 508.531.1231, Fax 508.531.6101

Prepayment is not required during preregistration week.  
After July 5, 2007, all registration forms must include check, credit card number, tuition waiver or proof of financial aid.

Banner ID         OR Social Security Number    -   -

NAME Last \_\_\_\_\_ First \_\_\_\_\_ Middle \_\_\_\_\_

ADDRESS # and Street \_\_\_\_\_ Unit # \_\_\_\_\_

City/Town \_\_\_\_\_ State \_\_\_\_\_ ZIP \_\_\_\_\_

**NOTE: BSC students with an address or phone number change must submit a separate Address Change Form.**

Home Phone: \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_

Daytime Phone: \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_

Date of Birth: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_  
Month Day Year

E-mail address: \_\_\_\_\_

**Prior education completed:**

- High School Graduate
- Associate's Degree
- Bachelor's Degree
- Master's Degree
- GAGS

**Have you been officially accepted**

**in a program at BSC?**  No  Yes

If yes, check one below:

- Bachelor's (see shaded area below)
- Licensure Program
- Master's
- GAGS or Post Master's

I certify that all of the answers given on this form are correct and complete to the best of my knowledge. I understand that false statements could result in my dismissal from Bridgewater State College.

Student's Signature: \_\_\_\_\_ Date \_\_\_\_\_

**Degree-Seeking Undergraduate Students Attending Day or Evening**

**This form must be signed by your adviser(s) before you register; or Web approval must have been granted. Students with double majors must secure the signatures of both advisers.**

Adviser's Signature \_\_\_\_\_

Adviser's Signature \_\_\_\_\_

Course #	Sec. #	CRN	Credit Level		Course Title	Days	Time
			U	G			

**Optional Survey Information**  
Please check appropriate box.

- American Indian or Alaskan Indian
- Black, Non-Hispanic
- Asian or Pacific Islander
- Hispanic
- Cape Verdean
- Non-Resident Alien
- White, Non-Hispanic
- Other

SEX  M  F

Note: All tuition waivers and other payment forms must be submitted at the time of registration for credit to be applied.

MasterCard  VISA  Discover Card  Check  Waiver (type: \_\_\_\_\_)  Other \_\_\_\_\_

(Make checks payable to Bridgewater State College)

MasterCard, VISA and Discover Card Only

You may pay charges through one of these three credit cards. To do so, please provide the information requested.

Account Number \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ Expiration Date: \_\_\_\_ / \_\_\_\_

Student Signature: \_\_\_\_\_

Billing address zip code of cardholder: \_\_\_\_\_

Please calculate payment below:

Tuition and Fee Total \$ \_\_\_\_\_

Parking Decal Fee \$ \_\_\_\_\_  
(payable once per academic year)

Total Payment Enclosed \$ \_\_\_\_\_