
BACE

Biotechnician
Assistant
Credentialing
Exam

BACE CANDIDATE FAQ

AY 23-24

1. What does the cost of the exam include?

The exam fee is \$185 per candidate. The fee includes:

- Access to the online Practice Exam Course
- A first and second attempt of the exam
- A digital credential upon passing

2. What is the format of the exam?

The BACE is one exam that consists of a Practical and a Knowledge portion. Candidates take both portions in one session.

3. How much time is allotted for the exam?

Candidates have four hours in which to complete the exam.

4. How many times may a candidate take the exam?

Candidates are permitted to take the exam a maximum of three times per year.

5. How frequently may a candidate take the exam?

There is a 20-day waiting period between attempts. While 20 days is the minimum waiting period, candidates are encouraged to schedule four to six weeks between exam attempts to provide adequate time to study and improve their overall score.

6. How do candidates find out if they passed the exam?

Candidates who take their exam on a computer may see their score results through UF e-Learning immediately. Exam Site Score Reports are sent to the Site Administrator for all candidates within two (2) weeks of processing. If taken independently of an Exam Site, the candidate will be notified via email from Biotility within two (2) weeks of processing.

7. What is a candidate's username and password for UF e-Learning?

All users must have an account in order to access the BACE content in UF e-Learning (UFEL). Biotility will email the Exam Site an invitation containing a unique **Enrollment Link** to distribute to their candidates. To create an account, candidates are asked to:

- Select the Enrollment Link.

- Complete the registration with an external identity (Google, LinkedIn, or Microsoft).
- Provide requested registration information including name, birthdate, email address, and phone number.
- Verify their account by opening and responding to the account confirmation email.

Please review [Accessing UF e-Learning](#) for a complete description of the account creation and enrollment process.

8. What are the recommended Study References?

The suggested study references are listed below.

- Brown, J. Kirk. Biotechnology: A Laboratory Skills Course (Second Ed.). Hercules, CA: Bio-Rad Laboratories, Inc., 2018.
- Daugherty, Ellyn. Biotechnology: Laboratory Manual (Second Ed.). St. Paul, MN: Paradigm Publishing, Inc., 2017.
- Daugherty, Ellyn. Biotechnology: Science for the New Millennium (Second Ed.). St. Paul, MN: Paradigm Publishing, Inc., 2017.
- Seidman, Lisa. Basic Laboratory Methods for Biotechnology: Textbook and Laboratory Reference (Third Ed.). Boca Raton, FL: CRC Press, 2021.

Additionally, the online Practice Exam Course is an excellent representation of the content candidates will encounter during the actual exam, as well as home to supplemental study resources and materials. Many of the study materials within the Practice Exam Course are also available publicly on the [Candidate Resources](#) page.

9. How do candidates prepare for the day of the exam?

Candidates should read the appropriate BACE Candidate Information Bulletin (CIB) prior to testing.

- [CIB for Paper & Pencil Testing](#) – The exam is administered at an Exam Site via Paper & Pencil and monitored by in-person proctors.
- [CIB for Exam Site Computer-Based Testing](#) – The exam is administered at an Exam Site via computer and monitored by in-person proctors.
- [CIB for Remote Testing](#) – This option is for candidates not testing through an Exam Site. The exam is taken remotely and monitored remotely by Honorlock.

The CIB includes contact numbers, resource links, a detailed exam description, technical requirements, and exam policies.

10. What subjects are covered on the Knowledge portion of the BACE?

General topics for the Knowledge portion include General Topics in Biotechnology, Technical Skills and Applications, Chemistry and Biochemistry, Biological Systems, and Workplace Safety and Behavior. See the [Knowledge Portion Categories and Subcategories](#) for a detailed list.

11. What subjects are covered on the Practical portion of the BACE?

General topics for the Practical portion include Biotechnology Skills, Applied Mathematics, Laboratory Equipment, and Research and Scientific Method. See the [Practical Portion Categories and Subcategories](#) for a detailed list.

12. Why are significant figures NOT required in all of the calculations on the BACE?

In order to maintain accuracy when making calculations for solutions, a question may ask for significant figures, for a number with a specified amount of decimals, or for a whole number. It is important for candidates to remember to use significant figures *only* when the question specifically asks for them. Otherwise, they must follow the directions in each question. For example, a candidate may see a question similar to the following:

"Calculate the volume in mL of 20X TAE Buffer required to make 1500 mL of 1X TAE Buffer. Record the correct amount below."

$$\begin{aligned} C_1V_1 &= C_2V_2 \\ (1X \text{ TAE}) (1500 \text{ mL}) &= (20X \text{ TAE}) (V_2) \\ V_2 &= 1500 \text{ mL} / 20X \text{ TAE} \\ V_2 &= 75 \text{ mL} \end{aligned}$$

If you were to follow significant digit rules, the answer would be 80 mL of 20X TAE stock buffer. However, if you plug this answer back into the equation, you get a value of 0.9375X TAE buffer for C₂, which is *incorrect*.

$$\begin{aligned} C_1V_1 &= C_2 V_2 \\ (20X \text{ TAE}) (80 \text{ mL}) &= (C_2) (1500 \text{ mL}) \\ C_2 &= 1500 \text{ mL} / 1600 \text{ mL} \\ C_2 &= 0.9375X \text{ TAE} \end{aligned}$$

Please follow the directions in each question.

13. What is the "Simple Dilution Method"?

Unlike chemistry labs, molecular biology labs use the "Simple Dilution" method. A *simple dilution* is one in which a unit volume of a *solute* (the material to be diluted) is combined with the appropriate unit volume of a *solvent* (the substance in which the solute is dissolved) to achieve the specified concentration. The *dilution factor* is the total number of unit volumes in which your solute will be dissolved. Mix the diluted solute thoroughly to achieve the dilution.

A 1:6 dilution (verbalized as "1 to 6" dilution) requires combining one unit volume of **solute** (the material to be diluted) + six unit volumes of the **solvent**. For example, you may see a question similar to the following:

"Using the simple dilution method, calculate the volume in µL of 6X loading dye required to run a 20 µL DNA sample on an agarose gel. Record the correct amount, rounded to one decimal place."

$$\frac{1}{6} = \frac{x}{20 \mu\text{L}} \quad X = 3.3 \mu\text{L}$$

14. How do candidates receive their digital credential?

Upon passing the BACE, electronic credentials are sent directly to the candidate using the email address they registered under. Electronic credentials are issued through Accredible. Candidates are provided multiple options for sharing their digital credential. Please refer to the [Digital Credentials](#) document for the most common method. For details on all options available, please visit [Accredible's Recipient Knowledge Base](#).

15. How do employers verify the credential?

To verify a BACE Credential online please visit Accredible [Verification Tool](#) and use this to ascertain whether a digital credential has been legitimately published from our system. There are three verification methods.

- **Credential Link** - If you know the URL of the credential you would like to verify, input this in the field shown and select **Verify**.
- **Credential ID No.** - If you know the ID No. of the credential you would like to verify, input this in the field shown and select **Verify**.
- **Open Badge Image Upload / How to Verify a Badge** - If you have seen an open badge that you want to check is real, you may copy and upload that badge to Accredible's Verification Tool, it will read the meta-data in that badge image and be able to tell you if it is genuine.