BACE Administrator FAQ

1. **What does the cost of the exam include?**
   - **First attempt:** The exam fee is $150 per candidate. The fee includes one attempt per candidate for both portions (Knowledge and Practical) of the exam, as well as materials and supplies for the Practical component of the exam.
   - **Second Attempt:** The fee for a second attempt (or “retake”) is $50, which includes one attempt per candidate for both portions (Knowledge and Practical) of the exam. Candidates may challenge either portion for $25, but only one second attempt per portion is allowed. There is a 20-day waiting period between attempts.
   - **Third Attempt:** Third attempts are allowed, but the exam fee must be paid in full again. To order a third attempt, the Site Coordinator must re-complete the BACE Order Form. Candidates are not permitted four attempts in one calendar year. There is a 20-day waiting period between attempts.

2. **What is the structure of the exam?**
   The BACE includes both a written examination (Knowledge Exam) and a practical skills evaluation (Practical Exam). Both assessments are closed book. The Knowledge Exam is administered by a Biotility-Certified Online Proctor via an online assessment platform. The Practical Exam is delivered in paper and pencil format and is administered under the observation of a Biotility-Certified Skills Evaluator. The Site Coordinator may schedule the two portions of the BACE on the same day, or schedule them on different days.

3. **How is each portion of the exam scored?**
   To pass BACE and earn the Biotechnician Assistant Credential, candidates must achieve an overall score of 80%. The score is determined by averaging the highest grade of the Knowledge Exam and the highest grade of the Practical Exam. Knowledge Exams are automatically scored within UF e-Learning. Practical Exams are scored by Biotility, and the results are uploaded into UF e-Learning. Skills Evaluation Grid Points are calculated by Biotility based on the Practical Exam Skills Evaluation Grid, then uploaded into UF e-Learning. Scores are sent to the Site Coordinator. Candidates who pass the BACE will be issued a Biotechnician Assistant Credential from Biotility.

4. **How do I register my candidates for the BACE?**
   Schools who wish to deliver the BACE must become an approved Exam Site. Under School Registration, schools may 1) register their site and site personnel, 2) order exams, and 3) register candidates. These steps do not need to be completed in one session, but they should be completed in the suggested order. Biotility requires Exam Sites to renew these forms each year.

5. **What payment methods are accepted?**
   Exam Sites may choose between three payment methods: Online with Credit Card or PCard, Check, or PO. If you pay online, the Site Coordinator and Billing Contact will receive an email with a link to make the payment. If you pay by check or PO, Biotility will mail a PO or an invoice.

6. **How many times may a candidate take the exam?**
   Candidates are permitted to take the exam a maximum of three (3) times an academic year, with a 20-day waiting period between attempts.

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7. **What is a candidate’s username and password for UF e-Learning?**
   All users must have a UFID and GatorLink Account in order to access BACE content in UF e-Learning. For examination purposes, the UFID serves as the Candidate ID and the GatorLink Account is the username and password into the exam. Every Gator has a UFID and GatorLink Account, so welcome to the Gator Nation!

8. **Is it possible to reset the UF e-Learning password?**
   Password resets may be requested via the Gatorlink Account Management website.

9. **How much time is allotted for each portion of the exam?**
   Candidates have three (3) hours in which to take the Knowledge Exam, and four (4) hours in which to take the Practical Exam.

10. **What subjects are covered on the Knowledge Exam?**
    General topics for the knowledge portion include Cells, Chemistry and Biochemistry, General Topics in Biotechnology, Genetics, Laboratory Skills and Applications, and Research and Scientific Method. See the Knowledge Exam Categories and Subcategories for a detailed list.

11. **What subjects are covered on the Practical Exam?**
    General topics for the practical portion include Applied Mathematics, Biotechnology Skills, Laboratory Equipment, and Preparing Solutions. See the Practical Exam Categories and Subcategories for a detailed list.

12. **How do candidates prepare for the BACE?**
    Candidates may prepare for the exam using the study materials presented under Candidate Resources. An Online Practice Exam is also available, and is an excellent representation of the content candidates will encounter during the actual exam. The Online Practice Exam may be ordered through the BACE Order form, located under School Registration. The fee is $10 per candidate, and includes a Results Synopsis providing detailed analysis of class and individual candidate performance.

13. **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. On your answer grid, record the correct amount.”
   
   \[ C1V1 = C2V2 \]
   \[ (1X \text{TAE}) (1500 \text{mL}) = (20X \text{TAE}) (V2) \]
   \[ V2 = 1500 \text{mL} / 20X \text{TAE} \]
   \[ V2 = 75 \text{mL} \]
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.

\[
C1 \times V1 = C2 \times V2 \\
(20X \text{ TAE})(80 \text{ mL}) = (C2)(1500 \text{ mL}) \\
C2 = \frac{1500 \text{ mL}}{1600 \text{ mL}} = 0.9375 \text{X TAE}
\]

Please follow the directions in each question.

14. 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. On your answer grid, record the correct amount to one decimal place.”

\[
\frac{1}{6} = \frac{x}{20 \mu L} \\
x = 3.3 \mu L
\]

15. What items are permitted during the exam?
Candidates are not permitted to bring any items into Exam Rooms. Your proctor will provide a pencil, basic non-programmable calculator, and scratch paper.

16. How do candidates claim their credential badge?
Upon passing the BACE, electronic credentials are issued immediately within UF e-Learning. Electronic credentials are issued as a badge from Badgr. Badges may be shared to social media from within UF e-Learning, or a digital verification link may be created from within Badgr. Instructions for creating a digital verification link may be found here.

17. How do employers verify the credential?
Electronic credentials are issued as a badge from Badgr. Badges may be digitally verified by anyone, and candidates may also share the badges on social media. Candidates may share a verification link from their Badgr Backpack.

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18. How many FTE credits are earned?
   In Florida, each candidate who successfully challenges the BACE will earn 0.3 FTE funding that goes directly back into the program. Exam Sites outside of Florida should check with their state CTE director to determine the number of FTE credits earned.