

**UTAH CTE SKILL CERTIFICATION
SUMMARY SCORE SHEET
BIOTECHNOLOGY - TEST # 708
2009**

The performance evaluation **is a required component of the skill certification process**. Each student must be evaluated on the required performance objectives. Performance objectives may be completed and evaluated anytime during the course.

- Students should be aware of their progress throughout the course, so that they can concentrate on the objectives that need improvement.
- Students should be encouraged to repeat the performance objectives until they have performed at a minimum of a number 3 or 4 on the rating scale (**moderately to highly skilled level**).

4 = highly skilled ⇒ Successfully demonstrated without supervision

3 = moderately skilled ⇒ Successfully demonstrated with limited supervision

2 = limited skill ⇒ Demonstrated with close supervision

1 = not skilled ⇒ Demonstration requires direct instruction and supervision

(0 = no exposure)

- When a performance objective has been achieved at a minimum of 80% (moderately to highly skilled level), “**Y**” (**Y=YES**) is recorded on the Summary Score Sheet. If a student **does not** achieve a 3 or a 4 (moderately to highly skilled level), then “**N**” (**N=NO**) is recorded on the Summary Score Sheet for that objective.
- All performance objectives **MUST** be completed and evaluated **prior to the objective test**.
- The signed Summary Score Sheet(s) **MUST** be kept in the teachers’ file for one year.

Students who achieve a 3 or a 4 (moderately to highly skilled) on **ALL** performance objectives and 80% on the written test will be issued a CTE skill certificate.

OBJECTIVES

THE REQUIRED PERFORMANCE OBJECTIVES ARE:

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| 1.2 | Research and present biotechnology concepts using effective communication skills. |
| 2.1 | Demonstrate appropriate use of personal protective devices. |
| 2.2 | Demonstrate proper aseptic/sterilizing techniques. |
| 2.4 | Demonstrate proper use and handling of micropipettes. |
| 3.2 | Maintain accurate records and documentation according to minimum good documentation practices (GDP). |
| 4.2 | Prepare solutions of defined concentrations and pH. |
| 6.1 | Prepare bacterial growth media. |
| 6.2 | Demonstrate the ability to culture and maintain microorganisms. |
| 7.1 | Perform a restriction digest and analyze the results with gel electrophoresis. |
| 7.2 | Demonstrate the ability to use PCR technology. |
| 7.3 | Demonstrate the ability to use proper separation techniques to differentiate between proteins based on size and structure (chromatography and SDS-PAGE). |
| 8.1 | Perform a bacterial transformation and analyze results. |

