



Embedding and Evaluating 21st Century or Soft Skills into Biotechnology Programs

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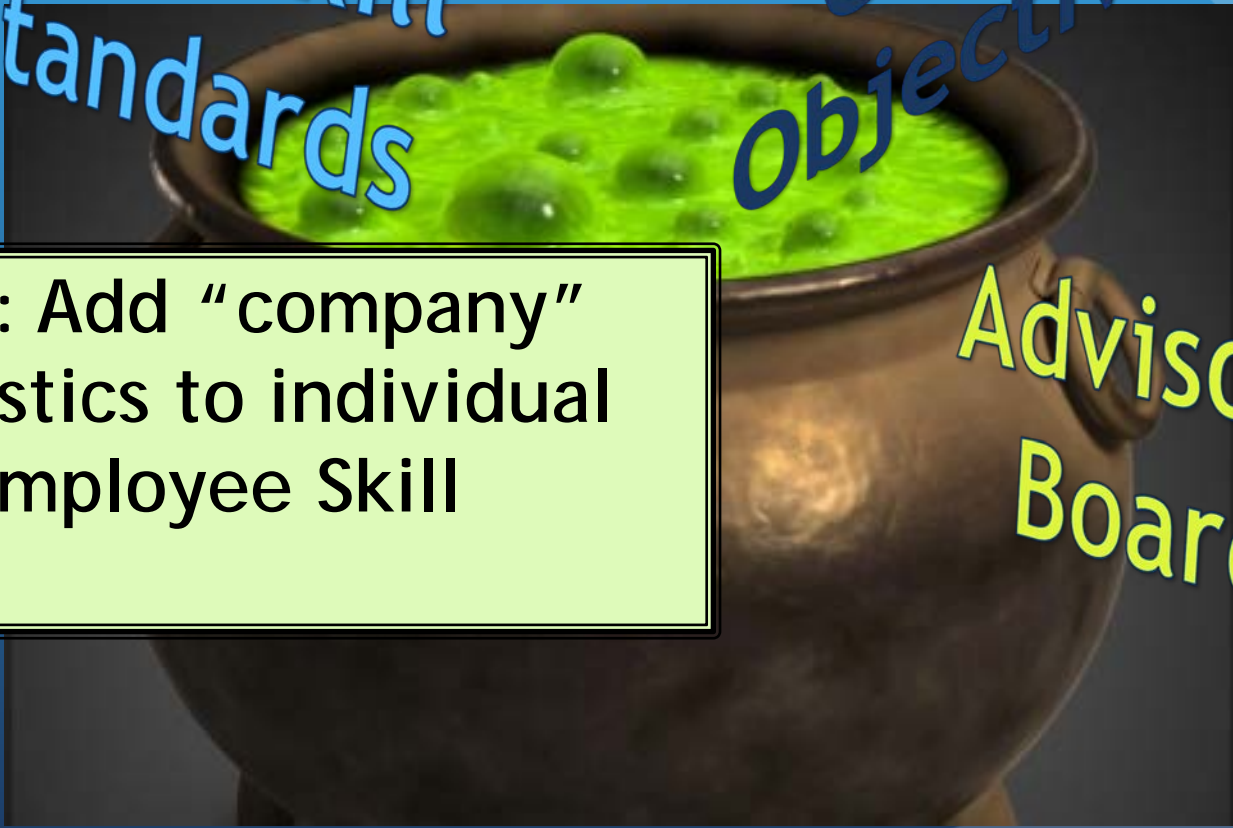
Meeting the Needs of Employers, Students,
the State, and the School

Texas Skill
Standards

Course
Objectives

Solution 1: Add "company"
characteristics to individual
courses: Employee Skill
Analysis

Advisory
Board



How To Evaluate It and Grade It?

- Had to be able to quantify a student's mastery of soft skills and assign a grade
- Adopted an employee evaluation developed by AMBION in the 90's
- Students, faculty and industry had to support it - students and faculty had to reflect on it and take it seriously!
- Distribute and Review Beginning of the Semester
 - Students self evaluate
 - Faculty evaluate at the conclusion of the course

Lessons Learned at ACC

- Students Must “Live It” to “Embrace It”
- Faculty and Staff Must “Model It”
- Like Laboratory Skills and Biotechnology Knowledge, soft skills must be layered from courses to course or students are overwhelmed
- Students Must Know What They Can and Cannot Do, and be able to Articulate That Information! Including SOFT SKILLS!

Employee evaluation must be reviewed annually by the advisory board to make sure it reflects trends in employee evaluations done at the local companies

Del Mar College Biotechnology Program

Solution 2: Undergraduate Research in Biology and Biotechnology Courses

Recruits students into the program

Embeds knowledge, technical and soft skills such as self-confidence!

Evaluation: Successful Research & Presentations!



Lets Hear from the Students!