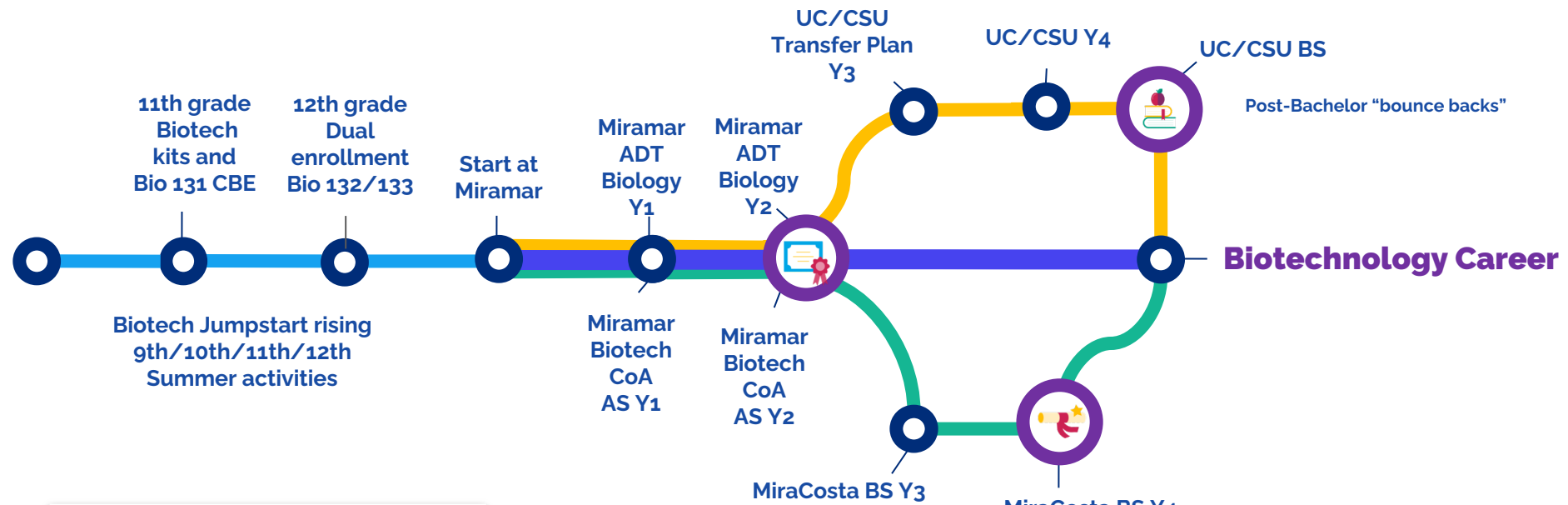


Pathways from High School to Community College to Biotechnology Career

Modeled after Skyline College subway map NSF: DUE 2327682



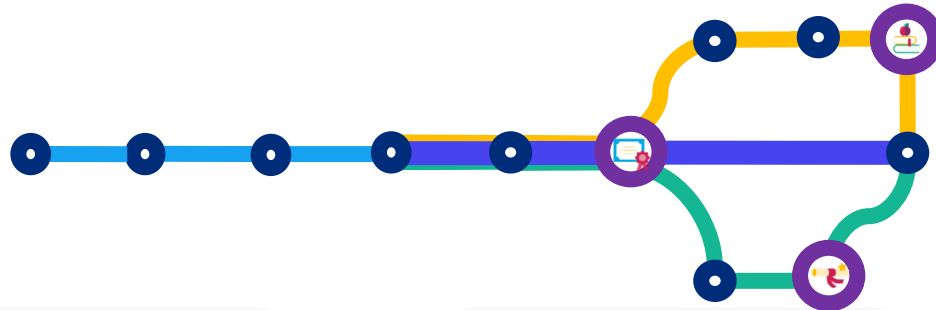
Pre-College

Miramar College-Biotech/Biology

BS Biomanufacturing-MiraCosta

UC/CSU transfer for BS

BIOTECH/BIOLOGY pathways @ MIRAMAR COLLEGE
CoA-Certificate of Achievement-Bio 131, Bio 132, Bio 133
AS-Associate's degree Biotechnology-COA classes, Bio 136, Chem 152/L, Excel, Coms and GE
ADT Biology: Associate Degree for Transfer in Biology



COA or AS Biotechnology

This certificate and/or degree gives students hands on training in Biology and Chemistry and skills essential to the field of biotechnology.

**2 year tuition*
estimate= \$3,000**

BS Biomanufacturing

Students earning this degree work in medical, agricultural & engineering industries that includes a wide range of applications, from biofuels & breweries to food science.

4 year tuition
estimate= \$10,000**

UC/CSU transfer for BS

This pathway includes biotechnology, general education & courses related to a science major for transfer to UC or CSU from Skyline.

4 year tuition range
estimate= \$32k-\$55k**

**Tuition depending on residency status and possibly free if Promise eligible.*

***4 year tuition on this slide is dependent on first 2 years completed at a community college.*

Miramar college Biotechnology program

Certificate of Achievement or Associate's Degree

Biology 131

- Introduction to Biology-4 units
- Basic Biotechnology lab training-50 hours
- Online lecture and on campus lab either Wednesday night or Friday morning

Biology 132

- Hands-on lab training-4 units and over 130 hours of lab training
- Molecular Biology, PCR, immunological techniques, bacterial cell culture, use of lab instruments/equipment, DNA extraction and analysis, solutions and dilutions

Biology 133

- Hands-on lab training-4 units and over 130 hours of lab training
- Advanced Molecular Techniques: DNA and Protein extraction/analysis, mammalian cell culture, PCR, CRISPR

* Associate's Degree includes: General education plus CoA classes, Bio 136, Chem 152/L, COMS, Excel