

**SCHOOL DISTRICT OF SOUTH ORANGE AND MAPLEWOOD
PUBLIC BOARD MEETING
December 20, 2021**

FOR ACTION

RESOLUTION NUMBER: 4232

SUBJECT: Approve New Course

BE IT RESOLVED, THAT The Board is being asked to adopt the following new courses:

New Course Name	Department
Introduction to Biotechnology	STEM 9-12
Statistics Honors	STEM 9-12

Background Information

Introduction to Biotechnology

Biotechnology is one of the fastest growing industries in the nation, and it affects nearly every aspect of our daily lives. Although the name might imply a single field, biotechnology actually includes a broad array of related technologies, unified in that they all use organisms or their products to benefit society. The applications of biotechnology can be seen in various industries, from agriculture and environmental protection, to forensics, engineering and medicine. This lab-based course offers students an introduction to many of the techniques which would be used in biotechnology research and is highly encouraged for any student who foresees a college program related to the sciences. Lab topics will include DNA purification, PCR, restriction digests, and agarose gel electrophoresis, to isolate and analyze DNA samples. The content of this course has been developed through a partnership with Rutgers University.

Statistics Honors

This course will focus on summarizing data, normal distributions, hypothesis testing and confidence intervals. The skills built in this class are key to decision-making and change in today's society. The course will include a comprehensive project utilizing all the skills learned from Statistics. Students will utilize the graphing and data tool (calculator or spreadsheet) extensively.