

## **Gunn's Critical Academic Needs – ESLRs**

#1 Demonstrates knowledge of key concepts, principles, processes, facts, and skills

#2 Effective communication through listening, speaking, and writing.

#6 Critical and Creative thinking to solve problems

#4 Ability to integrate knowledge among disciplines – Making Connections

## **CA State Mathematics Content Standards**

Content standards in Algebra I, Geometry, Algebra II, Trigonometry, Mathematical Analysis, Linear Algebra, Probability and Statistics, AP Statistics, AP Calculus

## **CA State Mathematics Framework**

*Instructional Strategies* – No single method of instruction is the best or most appropriate in all situations, but the goals to be achieved are 1) Conceptual Competence  
2) Procedural Competence and 3) Mathematical Reasoning Competence

*Assessment* – 1) Entry level assessment 2) Progress monitoring 3) Summative evaluation

*Universal Access* - The ultimate goal of the mathematics programs in CA is to ensure universal access to high-quality curriculum and instruction so that all students can meet or exceed the state's mathematics content standards.

*Appropriate use of technology* - Calculators, computers, software, internet

## **Mathematics Department**

*Areas of Strength* –

- Collaboration on Lesson Planning
- Common Assessments
- Math Extracurricular Contests
- Support for new teachers
- Appropriate use of technology to enhance student learning
- Consistency between sections of the same course
- Collaboration with special education staff
- Teachers have math content knowledge and are credentialed
- Math Pathways allow for differentiation and provide students with an opportunity for success
- Teachers are available to give help outside of class
- All teachers teach all levels of all courses
- Regular communication with students and parents through In Class and/or webpage for posting grades, assignments, support material, class notes, email

*Areas for Growth-*

- Need more opportunities for non-textbook problems and/or projects, some of which will connect math to other disciplines
- On-going vertical alignment needed in all lanes
- Redesign Algebra 1 to provide special support for struggling students
- Explore having a non-AP math elective that would be open to students from all lanes
- Look to the future and strive to predict the areas of mathematics and the use of technology that will be in demand, and work towards preparing teachers with the necessary knowledge

**WASC summary of key findings based on the analysis of student work**

| Area of Growth   | CA Content/Framework Standard   | ESLR  | Focus Area DICES   |
|--|---|---|--|
| Need more opportunities for non-textbook problems and/or projects, some of which will connect math to other disciplines  | Instructional Strategies<br>Assessment<br>Appropriate use of technology | #2 Effective communication<br>#6 Critical and creative thinking<br>#4 Integrate knowledge among disciplines | Instructional Practices –                                |
| On-going vertical alignment needed in all lanes  | Content Standards   | #1 Knowledge of key concepts<br>#4 Integrate knowledge among disciplines                                    | Diversity & Choice<br>Student Performance and Assessment |
| Redesign Algebra 1 to provide special support for struggling students  | Content Standards<br>Instructional Strategies<br>Universal Access       | #1 Knowledge of key concepts  | Diversity & Choice<br>Instructional Practice             |
| Explore having a non-AP math elective that would be open to students from all lanes  | Content Standards<br>Instructional Strategies<br>Universal Access       | #1 Knowledge of key concepts<br>#4 Integrate knowledge among disciplines                                    | Diversity & Choice                                       |
| Look to the future and strive to predict the areas of mathematics and the use of technology that will be in demand, and work towards preparing teachers with the necessary knowledge | Assessment<br>Appropriate use of technology                             | #6 Critical and creative thinking<br><br>#4 Integrate knowledge among disciplines                           | Excellence with Growth                                   |

