

## Next Reality

*A Digital Academy*

Next Reality is a Computer Science signature academy at Bishop Manogue Catholic High School. It offers students in grades 9-12 a curriculum that will lead them to licensure and certification in several key areas of Computer Science prior to high school graduation. Next Reality focuses on preparing students for the unknown, a future in the technological world. It provides coursework in networking, coding, application programming interface, and artificial intelligence and builds critical thinking, visualization, and analysis skills.

### Next Reality Partners

- ◆ **Walter Schaefer**, Verizon, Managing Director Worldwide Customer Labs
- ◆ **Michael Guerin**, IBM, Field Operations Manager
- ◆ **Heather Carranza**, Microsoft, Field Operations Manager
- ◆ **Karl Carlson**, CA Technologies, Senior Director Enterprise Solution Architects
- ◆ **Jon Schaefer**, Verizon, Regional Leader
- ◆ **Joe Fasanella**, Service Now, WW Products

### Next Reality Teachers

All Next Reality courses are taught by currently licensed professionals and specialists in the specific field of the course. The classes are taught at Bishop Manogue Catholic High School in a virtual classroom with a Bishop Manogue employee present as the class supervisor.

### Next Reality Courses

#### Honors Python Coding

Prerequisite(s): Open to all students grades 9-12 who have completed Computer-Aided Design and Algebra I with a grade of B or better and Partner School students who have graduated successfully from the Computer Science Academy.

Duration/Credit: Semester Course/0.5 Unit

Course Description: Honors Python Coding is a serious introduction to programming for students with minimal or no experience in coding. Students will learn the Python programming language and

how to plan and organize programs.

Course Expectations: Students will complete the Python Certification Test for licensure as the end of course exam.

### Honors Application Programming Interface (API)

Prerequisite(s): Open to all students grades 10-12 who have completed Honors Python Coding with a grade of B or better.

Duration/Credit: One Semester; 0.5 Unit

Course Description: Honors API is a detailed exploration of protocols and application tools that make it possible for multiple software components to communicate. Students will learn routines and subroutines, data structures, variables, and remote calls.

Course Expectations: Students will complete the API Test for licensure as the end of course exam.

### Honors API Gateway

Prerequisite(s): Open to all students grades 10-12 who have completed Honors API with a grade of B or better.

Duration/Credit: One Semester; 0.5 Unit

Course Description: Honors API Gateway expands on Honors API and teaches students connect multiple APIs to manipulate their function and/or secure their function in order to create hybrid applications based on the connections to the originating applications through the API.

Course Expectations: Students will complete the API Gateway Test for licensure as the end of course exam.

## Honors Artificial Intelligence (AI)

Prerequisite(s): Open to all students grades 11-12 who have completed Honors API Gateway with a grade of A.

Duration/Credit: One Semester; 0.5 Unit

Course Description: Honors AI is an advanced computer science course that teaches logic and reasoning from a computational perspective. Students will be exposed to probability modeling, language processing, and machine learning.

Course Expectations: Students will complete the AI Test for licensure as the end of course exam.

Students in next reality are also expected to take AP Computer Science Principles.

### Next Reality Graduates

Students who graduate from Next Reality at Bishop Manogue Catholic High School will have professional certification in Python Coding, API and API Gateway, and AI. They will be prepared to enter any collegiate Computer Science program or seek a job in the technological sciences upon high school graduation.