



# New River Middle School Marine Science Magnet Program

## 6<sup>th</sup> grade - iCAN (Integrated Career & Academic Networks) Academy Course Descriptions

2021-2022

### New River Academies

Arts & Humanities Academy

Marine & Biomedical Sciences Academy

Engineering & Industry Construction Academy

Business, Finance, & Entrepreneurship Academy

#### 6<sup>th</sup> grade Elective Academy WHEEL course description:

**Health/P.E.:** This course will include curriculum that helps students make healthy choices for them to be physically and mentally fit along with nutrition, hygiene, and healthy & safe life choices. It will incorporate of Physical Education curriculum that includes student participation in rigorous physical activity to promote healthy lifestyles. These activities include team sports, individual sports, fitness and exercise, dance, and lifetime and leisure sports.

**Computer Application:** Students will learn basic keyboarding skills, applications, and use of computer software. It will cover the basic principles of computer applications for continued use of technology through the year.

**Marine ROV (Remotely Operated Vehicles):** In this course, students will learn the basics of underwater remotely operated vehicles used in scientific research and exploration. Students will learn about physical properties that affect the movement of ROVs underwater and they will use these principles to design and build basic underwater ROV and AUV (autonomous underwater vehicles) for various tasks.

**Robotics:** This is a beginning course in robotics using Lego Robotic materials. The objective of this course is to introduce the student to basic programming in addition to problem solving strategies. This course will involve students in the development, building and programming of a LEGO Mindstorm robot. Using Legos, students will work, hands-on, in teams to design and build.

**Marine Ocean Exploration:** Topics in this course include: Ocean Exploration - coral reef research & deep-sea exploration; Marine Animals - coral reefs, invertebrates, & fish; Marine Conservation - invasive species, endangered species, & conservation.

**Intro. Engineer, Design, & Construction:** Students will learn about the basic concepts of the engineering process as applied to designing and building as it relates to marine industry and other local structures. Students will also learn the design process and develop an understanding of the influence of creativity and innovation in their lives.

**Intro. Entrepreneurship:** This course introduces the entrepreneurial concept and innovative strategies to students through teamwork in solving a problem, creating a product concept, pitching the idea, and learning marketing skills. This course allows students to learn the process of creating a business through a collaborative process.

**SHARKS (SEL- Social Emotional Learning):** This course introduces students to a curriculum that focuses on developing an understanding of how to effectively manage emotions, set and achieve positive goals, feel and show empathy for others, establish and maintain positive relationships, and make responsible decisions. SEL SHARKS character traits: S-smart, H-Happy, And Really Kind Students.

**Arts:** Students explore a variety of media and build skills in drawing, painting, and graphics. Develop the four strands of art education: art appreciation, art history, art production, and art criticism; as well as problem-solving and critical thinking skills.

**Intro. Forensic Science:** This course introduces the various disciplines of science that use forensic applications with observation, data collection, and analysis along with lab investigation. This course will apply many disciplines of scientific study such as biology/anatomy, chemistry, and physics to solving mysteries, crimes, and other events.

**Intro. Broadcasting:** Introduces students to a variety of broadcasting experiences, including producing their own morning announcements daily show and using software to make a variety of video presentations. This course teaches students fundamental multimedia skills, including how to use presentation software, graphics software, and other digital and multimedia tools.

#### Academy Course description (FULL YEAR Course):

**Chorus:** Chorus is a beginning course that is designed for students at the 6<sup>th</sup>-8<sup>th</sup> grade levels. Students must show a high interest in singing and performing before their peers and a wide audience. Basic vocal techniques will be explored in a variety of music styles, which include basic music reading skills and the theory/history behind selected music. Mass school performances are mandatory and meaningful components of this class.

**Beginning Band (Band 1):** This course is offered to 6<sup>th</sup> and 7<sup>th</sup> grade students with no experience playing band instruments. Beginning Band students will learn all wind instruments such as: Oboe, Bassoon, Flute, Clarinet, Alto Saxophone, French Horn, Trumpet, Trombone, Baritone and Tuba. Beginning Band students will also learn Percussion instruments. Students will learn the fundamentals of reading music notation, instrument care, performance, music appreciation and overall involvement in the Performing Arts. After school performances are required.

**\*\* There is a financial obligation for instrument rental**