






**Endorsement Options (including pathway and courses required to satisfy pathway)**

| Endorsement  | → | Pathway  | → | Courses  |   |  |                                  |
|--|---|--|---|--|---|--|----------------------------------|
|  <b>STEM</b>                    | → | Math   | → | A total of five credits in mathematics by successfully completing Algebra I, Geometry, Algebra II and two additional mathematics courses for which Algebra II is a prerequisite                    |   |  |                                  |
|  | → | Science  | → | A total of five credits in science by successfully completing biology, chemistry, physics, and two additional science courses  |   |  |                                  |
|  | → | Naval Architecture and Design                    | → | Concepts of Engineering and Technology   | Engineering Design and Presentation           | Advanced Engineering Design & Presentation * | Practicum in STEM *              |
|  <b>Business &amp; Industry</b> | → | Shipbuilding & Repair                            | → | Principles of Agriculture, Food and Natural Resources  | Agriculture Mechanical and Metal Technologies | Agricultural Facilities Design & Fabrication | Practicum in AFNR *              |
|  | → | Maritime Human Resources and Business Management | → | Principles of Business, Marketing & Finance  | Retailing and E-tailing                       | Human Resources Management                   | Practicum in Business Management |
|  | → | Marine IT Systems                                | → | Principles of Information Technology   | Computer Programming                          | Telecommunications & Networking              | Computer Technician *            |
|  | → | Maritime Logistics                               | → | Principles of Transportation, Distribution & Logistics   | Transportation Systems Management             | Logistics, Planning and Management Systems   | Practicum in TDL *               |
|  | → | Maritime Systems Engineering                     | → | Principles of Transportation, Distribution & Logistics   | Introduction to Shipboard Engineering         | Advanced Shipboard Engineering               | Practicum in TDL *               |
|  | → | Piloting and Deck Operations                     | → | Principles of Maritime Science   | Maritime Science I                            | Maritime Science II                          | Practicum in TDL *               |
|  <b>Arts &amp; Humanities</b>   | → | Double Foreign Language                          | → | Two levels of the same language in a language other than English and two levels of a different language in a language other than English   |   |  |                                  |
|  | → | Single Foreign Language                          | → | Four levels of the same language in a language other than English  |   |  |                                  |
|  | → | Social Studies                                   | → | A total of five social studies credits   |   |  |                                  |
|  | → | Fine Arts  | → | A coherent sequence of four credits by selecting courses from one or two categories or disciplines in fine arts  |   |  |                                  |
|  <b>Public Service</b>          | → | Teaching Professions                             | → | Principles of Education Train  | Human Growth & Development                    | Instructional Practicum                      | Prac Ed Training*                |
|  | → | JROTC  | → | Requires four credits in JROTC   |   |  |                                  |
|  <b>Multi-Disciplinary</b>      | → | Advanced Placement/Dual Credit                   | → | Four credits in advanced placement, International Baccalaureate, or dual credit selected from English, mathematics, science, social studies, economics, languages other than English, or fine arts |   |  |                                  |