



ENGINEERING ACADEMY

Endorsement Requirements

		ENDORSE WITH HIGH HONORS		
		ENDORSE WITH HONORS		
		ENDORSE		
Portfolio	Academy Coursework	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	Additional Academy Coursework	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	Individual Plan of Study (IPS)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	eHours/ePoints	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	21 st Century Endorsement Requirements Summary (this form)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	Resume	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	Professional Learning Experiences – Feedback from PLE Sponsor	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	Employability Skills feedback	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Academy Coursework	1.0 Introduction to Engineering (9 th)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	1.0 Pre-Engineering CAD 1&2 (10 th)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	1.0 Engineering Design and Robotics (11 th)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	1.0 Engineering Capstone (12 th)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Additional Required Coursework	1.0 Honors Biology	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	1.0 Engineering Honors Chemistry	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	1.0 AP Physics 1 (11 th)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	1.0 Senior College or AP Science Course	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	Continuous Enrollment in math- All 4 years	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	Select 1 Engineering Elective below		<input checked="" type="checkbox"/>	
	Select 2 Engineering Electives below			<input checked="" type="checkbox"/>
	1.0 Materials Science 1.0 CAD III (Mechanical or Architectural/Civil Design Emphasis) 1.0 Fundamentals of Programming			
	Honors English 2 of the 4 years		<input checked="" type="checkbox"/>	
	Honors English 3 of the 4 years			<input checked="" type="checkbox"/>
GPA	Grade Level Academy Coursework GPA (4 courses)	3.0	3.5	4.0
	Academy Required Coursework – weighted GPA	2.75	3.25	3.75
	Overall High School weighted GPA	2.75	3.0	3.5
eHours/ ePoints	eHours Total *See further explanation about eHours provided in “What is an Endorsement” handout.	200	300	400
Senior Capston	21 st Century Senior Capstone Presentation	Public Presentation	Public Presentation	Public Presentation

Enhancement Experiences

Enhancement Experiences provide opportunities to explore the world of engineering through exciting activities like being a member of our FIRST Robotics, participating in our ACE (Architecture-Construction-Engineering) Mentors, and/or TSA (Technology Student Association) to name a few. Enhancement Experiences take place **outside of the regular school day**. One of the most enjoyable components of these experiences is working with your A+E community. Enhancement Experiences in the Engineering Academy encourage exploration and personal development with a pre-engineer focus on math, science, technology and professional skills.

Extension Hours *Engineering Academy Instructor guided/approved*

Extension hours are volunteered and/or program time put in **outside of the regular school day** related to the Pre-Engineering focus of math, science, and technology. These activities include but are not limited to: community service with STEM focus (helping elementary students prep for science and math assessments, Lego League, Olathe Science Fair, A+E Open House, etc), ACE Mentors meetings, etc. ***For e-hours credit to be applied to your endorsement, students will need to submit the online "A&E Program's eHour Entry Form". Students can access this form on the department website:***

<https://ravenengineer.olatheschools.com/learning/>

STEM related competition *program approved*

Exploring Science, Technology, Engineering, and Math is an overall goal of A+E Pre-Engineering Program, and participating in a competition with these focuses is a great way to grow and test your skills in these areas. These activities include but are not limited to: ACE Mentors Design Competition, FIRST Robotics *including Cow Town Throw Down Robotic Competition*, National Combat Robotic Competition, TSA Competition, etc.

We want you to have variety of experiences, so there is a 100 e-hour credit max for prep and participation from a single type of competition (if competition is attend). If competition is not attended there is a 50 e-hour credit max for prep and participation from a single type of competition. For e-hour credits to be applied to your endorsement, students will need to submit the online "A&E Program's eHour Entry Form". Students can access this form on the department website:

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Pre-Engineering Professional Experience *A+E Program Instructor guided/approved*

The goal for the Engineering Academy's Professional Experiences is for students to gain insight into the engineering community. Students will gain first-hand knowledge of engineering careers including the companies where engineers work, what type of work they do daily, work-place expectations, needed educational level, skill sets, and licenses and/or certificates in order to be qualified for a professional career in the field of engineering. These activities include but are not limited to: a job shadow of a professional in the field of engineering, attending A+E Speaker Bureau with guests from the engineering professional community, attending Black & Veatch Explorer Post meetings, or Internships (*this experience counts toward A+E Senior Experience, a 100 e-hour credit max can be applied*).

For e-hour credits to be applied to your endorsement, students will need to submit the online "A&E Program's eHour Entry Form". Students can access this form on the department website: <https://ravenengineer.olatheschools.com/learning/>