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ENGINEERS' SOCIETY  
of  
WESTERN PENNSYLVANIA

### STUDENT SCHOLARSHIP APPLICATION FOR THE YEAR 2017-18

APPLICANT NAME		
DATE 7/28/17		
NAME OF RELATED ESWP MEMBER		
MEMBER # 8016		
RELATIONSHIP Father		
HOME ADDRESS		CAMPUS ADDRESS
134 Crescent Dr. Sewickley, PA 15143		817 E Shaw Lane, East Lansing, MI 405B McDonel Hall 48823
HIGH SCHOOL	CITY, STATE	GRAD. DATE
Aronworth High School	Pittsburgh, PA	6/2/17
COLLEGE	CITY, STATE	EXPECTED GRAD. DATE
Michigan State University	East Lansing, MI	2021
MAJOR		
Chemical Engineering		



## STUDENT SCHOLARSHIP APPLICATION FOR THE YEAR 2017-18

1. List any extra curricular activities that you participated in (community service, volunteer work, etc.) including length of service. (Attach extra sheet if necessary)

French Club: 4 years ; Elfinwild Home Meals: 4 years,  
Heitzel Foundation: 5 years

2. List any awards, honors or scholarships you have received. Include the date of the Award. (Attach extra sheet if necessary)

National Honors Society Member (May 2016 - present), Honor roll (2017),  
P.A.H.L. Academic All star (2005-2017), Scholar Athlete (2013-2017),

3. Essay question (The essay question is important to the final selection of the finalist for the awards. Select one of the topics. Take time to organize your thoughts. Provide your answers in typewritten form in 500 words or less. Type the essay question you are answering at the top of the essay. Attach the essay to your completed application.)

- Describe in detail an accomplishment that you have achieved while you were a student. Why were you successful? How will your success influence your future plans as an engineer?
- Describe in detail your strengths and interests. Describe how you will apply your skills to a career as an engineer.
- Describe in detail a challenge that industry will need to face in the future. What opportunities exist for technical graduates to help companies deal with that challenge?

4. Scholastic Performance:

Please attach a copy of your most recent transcript, including grade point average and class rank. Also, include a copy of test result scores from the SAT exam.

Brandon Cerminara

- Describe your strengths and interests. Describe how you will apply your skills to a career as an engineer.

When considering the valuable skills that every engineer must have, oftentimes creativity, flexibility, and logical reasoning are first on the list. It is important for every engineer to have an interest in what they are pursuing so that they are driven to accomplish amazing feats. One such interest for me is the desire to learn how the world around us works and how we can utilize these inner workings to the best of our advantage. To me, there is no greater excitement than the process of rigorous effort for the sake of discovery. This effort can come in a variety of ways through experimentation, calculation, or simply through research.

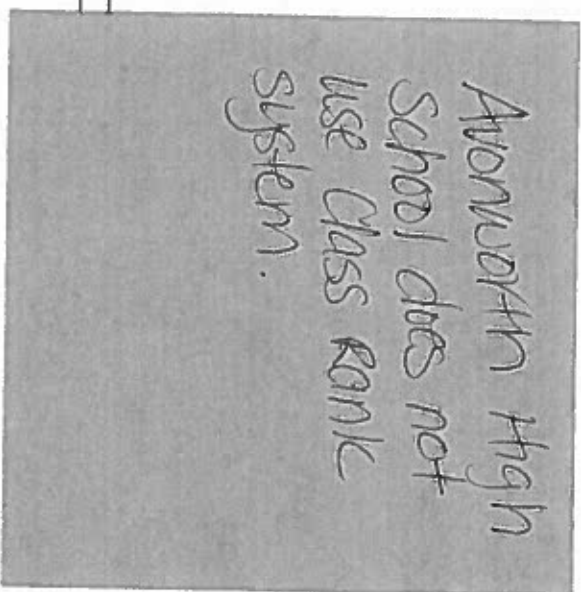
One of my most enjoyed pastimes is aluminum smelting and casting. This hobby comes purely out of my love of chemistry and tinkering, and is part of the reason that I chose to pursue chemical engineering in college. In my high school chemistry class we learned the properties of different metals. After hearing about aluminum's melting point being lower than most metals, I decided to attempt to find a way to melt it down and store the material. Over the course of the past two summers, I've created a miniature version of a foundry that is able to smelt aluminum in small quantities (such the size of a soda can) at an individual time, which I then form into ingots for future use. I am currently working on my casting skills and recently created a small cup casted from the melted aluminum. In the future as a chemical engineer, I would continue to

pursue my love of the chemical process and apply it to modern, more applicable issues such as carbon emissions or nuclear processes.

Engineer's have long been seen as the world's greatest problem solvers. Profound problem solving is nothing without the use and enjoyment of mathematics. For myself, mathematics has always been my favorite subject. I am constantly fascinated by the ability of mathematics to describe real, tangible processes through numbers and symbols. A simple equation can predict exactly how a physical process will take place. It is from this fascination that has led me to the engineering field. Without mathematical processes it would be much more difficult to understand the world around us. In my future as an engineer, my interest in math will drive me to solve many problems and allow me to discover and create many great things. The strength of logical reasoning stems directly out of mathematics, which provides a valuable skill toward the engineer's abilities.

Throughout my life I have been consistently amazed with the ability of math to describe nearly everything happening around us. I have also been constantly fascinated with the idea of tinkering with the simplest of things and creating something amazing from what no one expected would be useful. Such interests will hopefully spark my career as an engineer and allow me to solve many great, puzzling problems.

AVONWORTH High School does not use CLASS RANK system.



Student Name: \_\_\_\_\_ Student No. 0002016058 Grade 12 Homeroom 0310

Parent/Guardian Name and Address: \_\_\_\_\_

Message: Have a wonderful summer!

2016-2017

**Grading Scale**

Letter Grade Equivalent	Percent	Academic	Honors	AP
A	100-93	4.00	4.50	5.00
	92-90	3.75	4.25	4.75
B	89-87	3.25	3.75	4.25
	88-83	3.00	3.50	4.00
	82-80	2.75	3.25	3.75
C	78-77	2.25	2.75	3.25
	76-73	2.00	2.50	3.00
	72-70	1.75	2.25	2.75
D	68-65	1.25	1.75	2.25
	64-60	1.00	1.50	2.00
F	59-50/low	0.00	0.00	0.00

AVONWORTH HIGH SCHOOL  
 304 JOSEPHS LN  
 PITTSBURGH PA 15237-1299  
 (412) 947-0940 Fax (412) 368-1785  
 www.avonworth.k12.pa.us

**Grading Code**

- P = Passing
- F = Failing
- I = Incomplete
- WF = Withdraw Failing
- WP = Withdraw Passing
- ME = Medical Excuse
- AUD = Audit

Subject	Chr.1	Chr.2	Midterm Exam	Chr.3	Chr.4	Final Exam	Final	Credits	Teacher	Current Marking Period Comments
ACAD ENGLISH 12	97	85		82	83		89	1.000	Frauenholz	
HON PROB OF DEM	86	84		82	84		84	1.000	Agular	
AP CALCULUS (AB)	91	88		98	98		95	1.000	Caro	
AP PHYSICSLAB	93	98		86	84		95	1.000	Wolke	
AP FRENCH	94	82		87	92		94	1.000	Hart	
GOURMET FOODS	87	89		99	99		99	0.500	George	
PE 9-12							99	0.500	Mancuso	
IS PERSONAL FIN				P	F		P	0.500	Shrey	
Averages	4.3	4.2		4.3	4.2		4.2			
Excused Absences	5.0	5.0		1.0	5.0		16.0			Career Credits: 27.5000
Unexcused Absences	0.0	0.0		0.0	0.0		0.0			Career Quality Pts: 111.525
Tardies	1	3		4	2		10			Career Weight: 27.0000
Unexcused Tardies	0	0		0	0		0			W Cum GPA: 4.13426

Stuinfo - Stuinfo - Mich x Financial Aid - Stuinfo x The New SAT | SAT Suite x Dashboard | Student Sc x

Secure | https://studentscores.collegeboard.org/viewscore

Apps YouTube Amazon Gmail MSU email

CollegeBoard bcerminara

## Student Score Reports

Dashboard AP Potential Popular Tools ? Help

Welcome [redacted] Here is your most recent score.

SAT with Essay  
March 5, 2016

11th Grade

**1360**

Total Score

[View Details](#)

**680**

Evidence-Based Reading  
and Writing

**680**

Math

College. How to get there

There are a lot of great possibilities to explore in choosing a college. Get a step-by-step roadmap and advice on what to do when. [Make a plan](#)

Study Core  
Coursework

Roadmap to  
Careers

Make a College  
Plan

Search for  
Colleges

### Your Other Scores

[redacted] [redacted]