



**ENGINEERS' SOCIETY**  
of  
WESTERN PENNSYLVANIA

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

APPLICANT NAME		
DATE July 22, 2017		
NAME OF RELATED ESWP MEMBER		
MEMBER # 1133		
RELATIONSHIP Mother		
HOME ADDRESS		CAMPUS ADDRESS
603 Redwood Court		Shreve Hall, Purdue University
Cranberry Township, PA 16066		West Lafayette, IN 47907
HIGH SCHOOL	CITY, STATE	GRAD. DATE
Seneca Valley	Harmony, PA	May 26, 2017
COLLEGE	CITY, STATE	EXPECTED GRAD. DATE
Purdue University	West Lafayette, IN	May 2021
MAJOR		
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)

Miracle League Buddy (7 years), Animal Friends Volunteer (1 year), Seneca Valley Marching Band (4 years), Vice President and Co-Founder of SWEET (Seneca Women's Engineering Exploration Team), a high school club that went into the community to attract girls into engineering

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

Selected to represent Seneca Valley at the Westinghouse Science Honors Institute (2015), Society of Women Engineers Certificate of Merit (2017), Selected as one of 30 girls to participate in The Ohio State University WIE Rise Summer Program (2016), National Honor Society (2015-2017), Science National Honor Society (2015-2017), College Board AP Scholar (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.

My ACT scores are attached in lieu of SATs.

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?

One of the most exciting things that I achieved in high school was the creation of a new club called SWEET, Seneca's Women Engineering Exploration Team. I was one of five girls that created this organization, along with our Engineering Applications teacher. The club's mission is to interest younger girls to consider engineering as a career. One activity that we did was to set up a booth at the Carnegie Science Center during their Girls Rock Event, where we had made robots that colored using plastic cups, a motor, battery, and an attached marker. The kids were able to create their own artwork with these robots. We also displayed at a smaller Maker Faire at Barnes and Noble and had kids make slime and lip gloss. These activities were intended to show kids that science can be fun, as well as at Barnes and Noble that day, a small percentage of sales were donated to our organization as we were a new club and unfunded by the school. To expand on this, as my senior project, I designed and created a 90 minute class that was held on a Saturday at the Cranberry Municipal Center. It was open to kids ages 8-11. In this class, the learned basics of mechanical engineering by creating a roller coaster for foam pipe tubing and rolling marbles down it and trying to get them to complete a loop. They also learned about ocean engineering by creating boats from both aluminum foil and play dough and seeing which team's boat could hold the most marbles without sinking. The last experiment was in civil engineering where they built bridges with tooth picks and gum drops. These bridges were spanned between two neighboring tables and also tested with weight. I had twelve kids in the class and they enjoyed the day and are looking forward to studying science as they get to high school. This project was a stretch for me, as I had never taught students and I find it much easier to do something than to explain it. I was successful because of the hours of preparation that I put into the project. I conducted all the experiments myself ahead of time and had my younger sister do it also. In addition, I had two extra experiments prepared, as I was still not confident how much time it would take for a larger group to get through them. I wanted to make sure that they had plenty to do and having extra work prepared was better than to have extra time left where I would have been panicked at how to entertain them. At Purdue, I will participate in the Global Engineering Cultures and Practices Learning Community. I hope to be able to use my planning skills from the many projects for which I was involved in high school to help others through my engineering knowledge as well as to encourage others younger than I to become engineers.

**SENECA VALLEY HIGH SCHOOL STUDENT TRANSCRIPT**  
 Accredited by the Middle States Association of Colleges and Schools

SENECA VALLEY SCHOOL DISTRICT  
 128 SENECA SCHOOL RD  
 HARMONY PA 16037  
 (724) 452-6040

PA Secure ID 7802363551  
 Student ID 170292  
 Birth Date 05/31/1999

8th Grade 2012-2013

0394 HONORS GEOMETRY 0	A	1,000
0501 FRENCH I B	A	1,000

Credits earned before 9th grade is not included in the calculation of Qualitative Point Average, Class Rank, and total credits required to meet graduation.

9th Grade 2013-2014

0192 HONORS ENGLISH 9	A	1,000
0292 HONORS US HISTORY 1	A	0,500
0293 HONORS US HISTORY 2	B	0,500
0308 HONORS ALGEBRA 2	B	1,000
0403 HONORS BIOLOGY	A	1,400
0562 HONORS FRENCH 2	A	1,000
0708 PHYSICAL EDUCATION 9 - F	A	0,500
0901 CONSUMER FOODS 1	A	0,500
0307 FRESHMAN BAND	A	1,000
NW Cur QPA		3,7514
W Cum QPA		4,4264
Class Rank		7,5005

Credits  
 Abs 1 0  
 Tdy 0

10th Grade 2014-2015

0135 HON ENGLISH 10	A	1,000
0160 THEATRE 1	A	0,500
0235 HON E WLD HIST/GEO	A	0,500
0236 HON W WLD HIST/GEO	A	0,500
0355 HON PRECALCULUS/TRIG	B	1,000
0465 HON CHEMISTRY	A	1,400
0526 HON FRENCH 3	A	1,000
0735 HEALTH	A	0,500
0921 SYMPHONIC BAND	A	1,000
5745 PHYS ED/DM-BAND F	A	0,500
NW Cur QPA		3,8684
W Cum QPA		4,4688
Class Rank		80/597

Credits  
 Abs 1 0  
 Tdy 0

11th Grade 2015-2016

0146 AP-LANGUAGE/COMP	B	1,000
0184 ARGUMENT 1	A	0,500
0185 CHS ARGUMENT 2	A	0,500
0245 HON US HISTORY 3	A	0,500
0246 HON US HISTORY 4	A	0,500
0357 AP CALCULUS AB	B	1,000
0485 HON PHYSICS	A	1,400
0527 HON FRENCH 4	A	1,000
0921 SYMPHONIC BAND	A	1,000
5189 SAT/ACT ENGL PREP	P	0,250
5388 SAT/ACT MATH PREP	P	0,250
5746 PE 17/MARCH BAND F	A	0,500
NW Cur QPA		3,8228
W Cum QPA		4,7239
Class Rank		60/584

Credits  
 Abs 10 5  
 Tdy 3

12th Grade 2016-2017

0155 HON BRITISH LIT	A	1,000
0255 HON ECONOMICS	A	0,500
0258 AP US GOVT/POLITICS	A	1,000
0358 AP CALCULUS BC	B	1,000
0441 ANATOMY	A	0,500
0486 AP PHYSICS C	B	1,400
0835 HON ENGINEERING APP	A	0,500
0838 HON ENGINEER EXPER	A	0,500
0921 SYMPHONIC BAND	A	1,000
5756 PE 12/MARCH BAND F	A	0,500
NW Cur QPA		3,7348
W Cum QPA		4,8519
Class Rank		70/594

Credits  
 Abs 2 5  
 Tdy 1

Graduation Summary

Weighted Cumulative GPA:	4.8519
Non-Weighted Cumulative GPA:	3.7950
Weighted Class Rank:	70
Class Size:	594
Credits required to meet graduation:	24
Total credits earned to date:	31.60000

Graduation Project  
 Passed

State Standards Assessment  
 To Be Determined

A=Advanced P=Proficient B=Basic DB=Below Basic

Student  
 Address 503 REDWOOD CT  
 CRANBERRY TWP PA 16066  
 (724) 538-8591  
 Parent/Guardian

Grading Codes	Prior to 2012-13	2012-13 and later
P Pass	A 92 - 100 %	A 90 - 100 %
PD Pass/Distinction	B 83 - 91 %	B 80 - 89 %
X Medical Excuse	C 74 - 82 %	C 70 - 79 %
W Withdraw	D 65 - 73 %	D 60 - 69 %
WF Withdraw/Fail	F 0 - 64 %	F 0 - 59 %

Official Seal

Actual Graduation 05/26/2017  
 Issue Date 06/13/2017

*M. Karamally*

Official Signature

ACT ID: -42997280

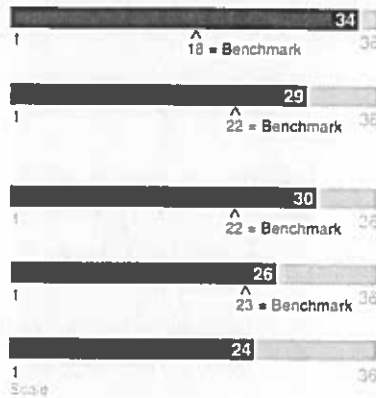
SENECA VALLEY SR HIGH SCHOOL (395-465) | APR 2016 NATIONAL

**Composite Score 30**

U.S. RANK 95% | STATE RANK 92%

**Test Results**

Test Results	Score	U.S. Rank
<b>English</b>	<b>34</b>	<b>98%</b>
Usage/Mechanics	17	96%
Rhetorical Skills	17	98%
<b>Mathematics</b>	<b>29</b>	<b>93%</b>
Pre-Algebra/Elem. Algebra	16	92%
Algebra/Coord. Geometry	16	98%
Plane Geometry/Trig.	13	82%
<b>Reading</b>	<b>30</b>	<b>89%</b>
Social Studies/Sciences	15	87%
Arts/Literature	16	91%
<b>Science</b>	<b>26</b>	<b>87%</b>
<b>Writing</b>	<b>24</b>	<b>88%</b>
Ideas and Analysis	08	
Development and Support	08	
Organization	08	
Language Use and Conventions	09	

**Scores in Relation to Benchmarks**


**Composite and Subscores:** ACT test scores and the Composite score range from 1 to 36; subscores range from 1 to 18. Your Composite score is the average of your scores on the four subject tests. Subscores do not necessarily add up to your score for a subject test.

**ACT College Readiness Benchmarks:** If your scores are at or above the ACT benchmark scores, you will likely be ready for first-year college courses.

**U.S. Rank and State Rank:** Your ranks tell you the approximate percentages of recent high school graduates in the U.S. and your state who took the ACT and received scores that are the same as or lower than yours.

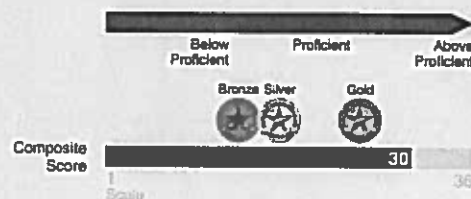
**Interpreting Your Scores:** Test scores are not precise measures of your educational development. ACT scores reported are the midpoint of a score range that represents your educational development at the time you took the ACT. For example, the score range is plus or minus one point for the Composite score. You will find more information about interpreting your scores in the *Using Your ACT Results* booklet provided with this report and at [www.actstudent.org](http://www.actstudent.org)

**Writing:** The score ranges from 1 to 36. Writing domain scores range from 2 to 12. Domain scores do not necessarily add up to your score for the Writing test.

<b>ELA</b>	<b>29</b>	<b>97%</b>
<b>STEM</b>	<b>28</b>	<b>91%</b>

**Understanding Complex Texts**  
Above Proficient

**Progress Toward Career Readiness**  
You are making progress toward Gold Level NCRC



**English Language Arts (ELA):** An average of your English, Reading, and Writing scores. The score ranges from 1 to 36.

**Science, Technology, Engineering, and Mathematics (STEM):** An average of your Mathematics and Science scores. The score ranges from 1 to 36.

**Understanding Complex Texts:** Measures level of proficiency on a subset of items in the Reading test assessing the ability to identify the central meaning and purposes for a range of increasingly complex texts.

**Progress Toward Career Readiness:** Based on your ACT Composite score, Progress Toward Career Readiness is an indicator of your potential level of achievement on the ACT National Career Readiness Certificate™ (ACT NCRC®). The ACT NCRC is an assessment-based credential that certifies skills critical to your future education and career success.

Learn how ACT NCRC performance relates to job skill requirements at [www.act.org/workkeys/briefs/files/NCRCRequirements.pdf](http://www.act.org/workkeys/briefs/files/NCRCRequirements.pdf).

This information is not to be considered a substitute for actual performance on the ACT NCRC.

**Your College Reports**

At your direction, your scores from this test date are being reported to the colleges shown below. College planning information is provided for the first four choices you listed when you registered or tested. Check with colleges for recent changes in information. Note: Your GPA was calculated from the grades you reported.

College Name (Code)	Profile of Enrolled 1st-Year Students				Approximate Annual Tuition and Fees		Percentage of 1st-Year Students Receiving Financial Aid	
	ACT Composite Score	High School Class Rank	High School GPA	Preferred Program of Study Availability	In-state	Out-of-state	Need-based	Ment-based
VIRGINIA TECH (4420) BLACKSBURG, VA <a href="http://www.vt.edu">www.vt.edu</a>	MIDDLE 50% BETWEEN 23-27	MAJORITY IN TOP 50%	-	YES: 4-YR. DEGREE	\$10,100	\$25,500	-	8%
PURDUE U (1230) WEST LAFAYETTE, IN <a href="http://www.purdue.edu">www.purdue.edu</a>	MIDDLE 50% BETWEEN 24-30	MAJORITY IN TOP 25%	3.70	YES: 4-YR. DEGREE	\$10,000	\$28,800	51%	22%
U OF MARYLAND C PARK (1746) COLLEGE PARK, MD <a href="http://www.admissions.umd.edu">www.admissions.umd.edu</a>	MIDDLE 50% BETWEEN 27-31	MAJORITY IN TOP 10%	3.80	YES: 4-YR. DEGREE	\$9,400	\$29,700	40%	20%
CASE WESTERN RESERVE (3244) CLEVELAND, OH <a href="http://www.case.edu">www.case.edu</a>	MIDDLE 50% BETWEEN 29-33	MAJORITY IN TOP 10%	-	YES: 4-YR. DEGREE	\$44,600	\$44,600	87%	80%

**Student Information**

Composite Score	Class Rank	Calculated GPA	Selected Major
30	TOP 25%	3.85	MECHANICAL ENGINEERING

For more information on college and career planning, interpreting your scores, and sending additional score reports, go to [www.actstudent.org](http://www.actstudent.org).

A dash (—) indicates information was not provided or could not be calculated. | \*Institution provided cost information that may reflect more than tuition and fees.

## College and Career Planning

Many people consider several possibilities before making definite career plans. Before you took the ACT, you had the opportunity to respond to questions about your educational and career plans. Use this information to consider possibilities that you may like to explore.

### Interest Inventory Results

YOUR RESULTS INDICATE A PREFERENCE FOR WORKING WITH PEOPLE AND IDEAS.

SEE MAP REGIONS 9, 10, 11

THE SHADED REGIONS SHOW CAREER AREAS HAVING WORK TASKS YOU PREFER.

### RELATED CAREER AREAS:

APPLIED ARTS (VISUAL)  
 APPLIED ARTS (WRITTEN & SPOKEN)  
 CREATIVE & PERFORMING ARTS  
 MEDICAL DIAGNOSIS & TREATMENT  
 MEDICAL TECHNOLOGIES  
 SOCIAL SCIENCE

### College Major Selected

MECHANICAL ENGINEERING

THIS MAJOR PRIMARILY INVOLVES WORKING WITH IDEAS AND THINGS.

### RELATED MAJORS:

AEROSPACE/AERONAUTICAL ENGINEERING  
 ELECTROMECH/BIOMED ENGINEERING TECH  
 ENGINEERING (PRE-ENGINEERING), GEN  
 INDUSTRIAL ENGINEERING  
 MECHANICAL DRAFTING/CAD TECHNOLOGY  
 MECHANICAL ENGINEERING TECHNOLOGY

### Occupational Field Selected

MECHANICAL ENGINEERING

SEE MAP REGION 8

THE OCCUPATIONAL FIELD YOU CHOSE IS IN CAREER AREA O:  
 ENGINEERING & TECHNOLOGIES

### RELATED OCCUPATIONS:

ARCHITECT  
 CARTOGRAPHER  
 ENERGY AUDITOR  
 ENGINEERS (E.G., CIVIL, MECHANICAL)  
 AND TECHNICIANS (E.G., AEROSPACE,  
 QUALITY CONTROL) IN VARIOUS FIELDS  
 NONDESTRUCTIVE TESTER  
 SURVEYOR

## The World-of-Work Map

(Your Interest Inventory results are shaded.)\*

**Four Basic Work Tasks:** All college majors and occupations differ in how much they involve working with four basic work tasks: working with **People** (care, services), **Things** (machines, materials), **Data** (facts, records), and **Ideas** (theories, insights). These four basic work tasks are the compass points on the World-of-Work Map.

**Regions and Career Areas:** The map is divided into 12 regions, each with a different mix of work tasks. The map shows the locations of 26 occupational fields, called Career Areas (A–Z). Each Career Area contains many occupations that share similar work tasks.

\*If no regions are shaded, you did not answer enough interest items to permit scoring.

For more information about your college and career planning, visit [www.actstudent.org](http://www.actstudent.org) or check the booklet provided with this report.

