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ENGINEERS' SOCIETY
of
WESTERN PENNSYLVANIA

STUDENT SCHOLARSHIP APPLICATION FOR THE YEAR 2017-18

APPLICANT NAME		
DATE 7/31/2017		
NAME OF RELATED ESWP MEMBER		
MEMBER # 1916		
RELATIONSHIP Father		
HOME ADDRESS		CAMPUS ADDRESS
115 Walkers Ridge Rd		4701 College Drive
Presto, PA 15142		Erie, PA 16563
		MB # 1854
HIGH SCHOOL	CITY, STATE	GRAD. DATE
Chartiers Valley	Bridgeville, PA	6, 8, 2014
COLLEGE	CITY, STATE	EXPECTED GRAD. DATE
PSU Behrend	Erie, PA	5, 9, 2018
MAJOR		
Mechanical 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)

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

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.

SAT Scores: Reading 630 Math 650 Writing 680

SAT Total: 1960

1. Extracurricular Activities:

Co-founder of the Behrend Robotics Club (2 years)
Founder of the Behrend HEMA Club (2 years)
Co-author of "Analysis Of Cryogenically Treated Sheet Nylon 6/6" MSEC2017-3039
Food Bank volunteer assisting in distribution (5 years)
800+ hours of community service (8 years)
Volunteered for the Children's Variety Halloween event (6 years)
Taught martial arts lessons as a black belt (4 years)
CCD organizer at St. Barbara's Parish (4 years)
Altar server at St. Barbara's Parish (12 years)
Bible study leader (3 years)

2. Honors, awards and scholarships:

2nd degree Knight of Columbus member (2016)
3rd Degree Black Belt, Shotokan Karate (2011)
Judicial Board member of Triangle Fraternity (2016)
PNC leadership Scholarship Recipient (2014)
Engineering Society Scholarship Recipient (2014)
National Society of Leadership and Success Member (2015)
Mu Alpha Theta Math Honors Society member (2014)
International Black Belt Hall of Fame inductee (2012)
Behrend Catholic Club Treasurer (2015)
Triangle Gamenight Committee leader (2016)
Behrend Welcome Week Leader (2017)
Behrend Robotics competition team leader (2016)
President's Education Awards Program recipient (2011)
Penn State Chancellor's Award recipient (2015)
St. Timothy award nominee (2015)
ASME society member (2016)

Past Engineering Experience:

Aquatech International Corp., Canonsburg, PA

May-August, 2016

FULL TIME INTERN IN THE BASIC ENGINEERING DEPARTMENT

- Located and assigning gages and transmitters to water purification systems.
- Distinguished between varying stages of the systems in varying departments.
- Ensured part specs met the job requirement for the changing liquid attributes.

Lennon, Smith, Souleret Engineering, Inc., Coraopolis, PA

May-August, 2015

FULL TIME INTERN IN THE MS4 (MUNICIPAL SEPARATE STORM SEWERS) DEPARTMENT

- Located and analyzed storm drain outflow throughout southwest Pennsylvania.
- Notified local authorities of MS4 infractions in their roads and neighborhoods.
- Helped educate municipalities about implementing and enforcing ordinances.
- Organized and created data organization field databases and infraction paperwork.

Orbital Engineering, Pittsburgh, PA

July, 2013

FULL TIME INTERN IN THE ENGINEERING DEPARTMENT

- Worked with a plethora of different engineers on separate projects
- Organized and sorted site photo databases across various servers.
- Created full flow diagrams for Shale gas distilleries through google drive programs.
- Drafted layouts for up-to-date circuitry while renovating outdated factories.

ESWP Essay question

Topic 3

7/21/2017

Advancements of Technology

For this short essay, I plan to review the challenges of new technology integrating into the engineering field. The field of Engineering tends to bring forth the brightest and most logical people of a society. As an engineer, one must be able to use their gained field experience and applicable knowledge of the subject in unison to best complete the given task. Personal resourcefulness and critical thinking make up the most successful engineers, reinforcing their ability to think outside of the box in order to complete a task. In the past, technology allowed engineers to craft ideas with the primitive pencil and paper, calculate with a slide rule, and store information in filing cabinets. As we progress through an age of technology and communication, I believe one of the largest concerns for the engineering field will be updating to better technology at an efficient pace.

I have worked as an engineering intern during the summer breaks for a handful of companies, each with their own level of technological advancement. I had noticed a repeating occurrence of the more experienced, more tenured engineers not accepting newer technologies that could make their jobs far more efficient because they were comfortable using older technology and methods that they were familiar with. Although I can completely understand sticking with what you learned due to the amount of effort that is needed to master a technique, our technology is advancing at such a high rate that updating to newer techniques and methods would save time and money across the board at various firms. The most common old technology I saw in the field was the use of actual paper blueprints instead of the use of electronic tablets. While working in the field a few years back, I noticed the senior engineer carrying around a thick stack of blueprints of the old manufacturing plant we were upscaling. The bulky pile was clearly weighing him down, and was possibly 20 percent of his weight. Everyone in the conference room had to crowd around a small table and find just the right angle to see the changes as we added a new electrical system. This huddling action was inefficient and time consuming, since it made presenting changes difficult in a confined space. The use of a tablet with a port to stream the information on a television would have worked far better in this case, allowing the whole room to see without blocking the engineers at work. A program like Google Docs or Sketchpad could have the old blueprints inlayed while new updates took place in real time, allowing for feedback and brainstorming sessions. I believe technical graduates would be able to best implement these changes into the workforce because of their exposure to such machinery.

I hope this integration of newer technologies hits home with whomever is reading this short essay and allows for efficiency changes in the field of engineering with the hopeful result of better communication and collaboration of a firm's engineering personnel.

Undergraduate Advising Transcript

Name:
Student ID: *51000000*

Print Date: 07/28/2017
Campus ID: CZR5224
Requestor:

Beginning of Undergraduate Record

FA 2014

Program:	Behrend College					
Plan:	Behrend College (PMAJ) Pre-Major					
<u>Course</u>		<u>Description</u>	<u>Attempted</u>	<u>Earned</u>	<u>Grade</u>	<u>Points</u>
ARTH	111	Anc to Med Art	3.000	3.000	B	9.000
ECON	102	Microec Anly	3.000	3.000	B+	9.990
ENGL	30	Honors Fresh Comp	3.000	3.000	B+	9.990
Course Attributes:		Honors				
GER	3	Inmd German	4.000	4.000	B	12.000
KINES	59	Intro to Karate	1.500	1.500	A	6.000
MATH	140	Calc Anly Geom I	4.000	4.000	C	8.000
Term GPA	2.970	Term Totals	18.500	18.500	18.500	54.980
Transfer Term GPA		Transfer Totals	32.000	32.000	0.000	0.000
Combined GPA	2.970	Comb Totals	50.500	50.500	18.500	54.980
Cum GPA	2.970	Cum Totals	18.500	18.500	18.500	54.980
Transfer Cum GPA		Transfer Totals	32.000	32.000	0.000	0.000
Combined Cum GPA	2.970	Comb Totals	50.500	50.500	18.500	54.980

SP 2015

Program:	Behrend College					
Plan:	Behrend College (PMAJ) Pre-Major					
<u>Course</u>		<u>Description</u>	<u>Attempted</u>	<u>Earned</u>	<u>Grade</u>	<u>Points</u>
CMPSC	200	Prmg Engr Matlab	3.000	3.000	B	9.000
EDSGN	100S	Intro Engr Dsgn	3.000	3.000	A-	11.010
Course Attributes:		First-Year Seminar				
MATH	141	Calc Anly Geom II	4.000	4.000	D	4.000
MATH	220	Matrices	0.000	0.000	WN	0.000
Repeated:		Attempt				
PHYS	211	Mechanics	4.000	4.000	B-	10.680
Term GPA	2.480	Term Totals	14.000	14.000	14.000	34.690
Transfer Term GPA		Transfer Totals	0.000	0.000	0.000	0.000
Combined GPA	2.480	Comb Totals	14.000	14.000	14.000	34.690
Cum GPA	2.760	Cum Totals	32.500	32.500	32.500	89.670
Transfer Cum GPA		Transfer Totals	32.000	32.000	0.000	0.000
Combined Cum GPA	2.760	Comb Totals	64.500	64.500	32.500	89.670

FA 2015

Program:	Behrend College					
Plan:	Mechanical Engineering (BS) Major					
<u>Course</u>		<u>Description</u>	<u>Attempted</u>	<u>Earned</u>	<u>Grade</u>	<u>Points</u>
EMCH	211	Statics	3.000	3.000	D	3.000
MATH	230	Calc/Vector Anly	4.000	4.000	D	4.000
MATH	251	Ord and Part Diff Eq	4.000	4.000	C	8.000
PHYS	212	Elect and Magnetism	4.000	4.000	C+	9.320

Undergraduate Advising Transcript

Name:
Student ID: 973075799

			<u>Attempted</u>	<u>Earned</u>	<u>GPA Units</u>	<u>Points</u>
Term GPA	1.620	Term Totals	15.000	15.000	15.000	24.320
Transfer Term GPA		Transfer Totals	0.000	0.000	0.000	0.000
Combined GPA	1.620	Comb Totals	15.000	15.000	15.000	24.320
Cum GPA	2.400	Cum Totals	47.500	47.500	47.500	113.990
Transfer Cum GPA		Transfer Totals	32.000	32.000	0.000	0.000
Combined Cum GPA	2.400	Comb Totals	79.500	79.500	47.500	113.990

SP 2016

Program: Behrend College
Plan: Mechanical Engineering (BS) Major

<u>Course</u>		<u>Description</u>	<u>Attempted</u>	<u>Earned</u>	<u>Grade</u>	<u>Points</u>
BIOL 120A		Pls Plcs and Pple	3.000	3.000	B	9.000
EE 211		El Cir and Pwr Dist	3.000	3.000	B	9.000
EMCH 212		Dynamics	3.000	0.000	F	0.000
EMCH 213		Strength Materials	3.000	0.000	F	0.000
MATH 220		Matrices	2.000	2.000	C	4.000
Repeated:		Final Repeat				
ME 300		Engr Thermo I	3.000	0.000	F	0.000
PHYS 214		Wave Motion&Quan	2.000	2.000	D	2.000

			<u>Attempted</u>	<u>Earned</u>	<u>GPA Units</u>	<u>Points</u>
Term GPA	1.260	Term Totals	19.000	10.000	19.000	24.000
Transfer Term GPA		Transfer Totals	0.000	0.000	0.000	0.000
Combined GPA	1.260	Comb Totals	19.000	10.000	19.000	24.000
Cum GPA	2.080	Cum Totals	66.500	57.500	66.500	137.990
Transfer Cum GPA		Transfer Totals	32.000	32.000	0.000	0.000
Combined Cum GPA	2.080	Comb Totals	98.500	89.500	66.500	137.990

FA 2016

Program: Behrend College
Plan: Mechanical Engineering (BS) Major

<u>Course</u>		<u>Description</u>	<u>Attempted</u>	<u>Earned</u>	<u>Grade</u>	<u>Points</u>
EMCH 211		Statics	3.000	3.000	C	6.000
MATH 141		Calc Anty Geom II	4.000	4.000	C	8.000
ME 300		Engr Thermo I	0.000	0.000	LD	0.000
ME 345W		Instru Meas and Stat	4.000	4.000	D	4.000
Course Attributes:		Writing Across the Curriculum				
RLST 104		Intro to Buddhism	3.000	3.000	A	12.000

			<u>Attempted</u>	<u>Earned</u>	<u>GPA Units</u>	<u>Points</u>
Term GPA	2.140	Term Totals	14.000	14.000	14.000	30.000
Transfer Term GPA		Transfer Totals	0.000	0.000	0.000	0.000
Combined GPA	2.140	Comb Totals	14.000	14.000	14.000	30.000
Cum GPA	2.090	Cum Totals	80.500	71.500	80.500	167.990
Transfer Cum GPA		Transfer Totals	32.000	32.000	0.000	0.000
Combined Cum GPA	2.090	Comb Totals	112.500	103.500	80.500	167.990

SP 2017

Program: Behrend College
Plan: Mechanical Engineering (BS) Major

Undergraduate Advising Transcript

Name:
Student ID: 0000000000

Course	Description	Attempted	Earned	Grade	Points	
EMCH 212	Dynamics	3.000	3.000	C	6.000	
EMCH 213	Strength Materials	3.000	3.000	C	6.000	
Course Attributes:	Honors					
ENGL 202C	Technical Writing	3.000	3.000	A-	11.010	
HIST 101	Roman Repub&Empire	3.000	3.000	A	12.000	
KINES 65	Jogging	1.500	1.500	A	6.000	
ME 300	Engr Thermo I	3.000	3.000	C	6.000	
Term GPA	2.850	Term Totals	16.500	16.500	16.500	47.010
Transfer Term GPA		Transfer Totals	0.000	0.000	0.000	0.000
Combined GPA	2.850	Comb Totals	16.500	16.500	16.500	47.010
Cum GPA	2.220	Cum Totals	97.000	88.000	97.000	215.000
Transfer Cum GPA		Transfer Totals	32.000	32.000	0.000	0.000
Combined Cum GPA	2.220	Comb Totals	129.000	120.000	97.000	215.000

FA 2017

Course	Description	Attempted	Earned	Grade	Points	
HIST 435	European History	3.000	0.000		0.000	
MATSE 259	Engr Matls	3.000	0.000		0.000	
ME 320	Fluid Flow	3.000	0.000		0.000	
ME 345W	Instru Meas and Stat	4.000	0.000		0.000	
Course Attributes:	Writing Across the Curriculum					
ME 349	Int Mech Matl	3.000	0.000		0.000	
ME 365	Materials Lab	1.000	0.000		0.000	
Term GPA	0.000	Term Totals	17.000	0.000	0.000	0.000
Transfer Term GPA		Transfer Totals	0.000	0.000	0.000	0.000
Combined GPA	0.000	Comb Totals	17.000	0.000	0.000	0.000
Cum GPA	2.220	Cum Totals	114.000	88.000	97.000	215.000
Transfer Cum GPA		Transfer Totals	32.000	32.000	0.000	0.000
Combined Cum GPA	2.220	Comb Totals	146.000	120.000	97.000	215.000
Undergraduate Career Totals						
Cum GPA:	2.220	Cum Totals	114.000	88.000	97.000	215.000
Transfer Cum GPA		Transfer Totals	32.000	32.000	0.000	0.000
Combined Cum GPA	2.220	Comb Totals	146.000	120.000	97.000	215.000

Transfer Credits

Course	Description	Attempted	Earned	Grade	Points
IE XFRCNV	IE-Transfer Credit Conv	2.000	2.000	TR	0.000
Course Trans GPA:	0.000	Transfer Totals:	2.000	2.000	0.000

Transfer Credit from U Pittsburgh

Course	Description	Attempted	Earned	Grade	Points
CAS 100	Effective Speech	3.000	3.000	TR	0.000

Undergraduate Advising Transcript

Name: _____
 Student ID: 973075799

Course Trans GPA: 0.000 Transfer Totals: 3.000 3.000 0.000

Transfer Credit from Duquesne U

			Attempted	Earned	Grade	Points
			Fall 2014			
Course		Description				
CHEM	110	Chem Princ I	3.000	3.000	TR	0.000
CHEM	111	Exper Chem I	1.000	1.000	TR	0.000
CHEM	111	Exper Chem I	1.000	1.000	TR	0.000
GER	XFRCNV	GER-Transfer Credit Conv	4.000	4.000	TR	0.000
PHYS	XFRCNV	PHYS-Transfer Credit Conv	4.000	4.000	TR	0.000
STAT	XFRCNV	STAT-Transfer Credit Conv	3.000	3.000	TR	0.000
SUBUG	XFRCNV	SUBUG - Transfer Course	0.000	0.000	TR	0.000

Course Trans GPA: 0.000 Transfer Totals: 16.000 16.000 0.000

c

Test Credits

Advanced Placement	Conversion	0.00		
Transferred to Term FA 2014 as				
STAT	100	Stat Concepts	3.000	TR
Advanced Placement	Conversion	0.00		
Transferred to Term FA 2014 as				
TRN	XNU	TRN-Unsatisfactory Tran Crse	0.000	NU
Advanced Placement	Conversion	0.00		
Transferred to Term FA 2014 as				
TRN	XNU	TRN-Unsatisfactory Tran Crse	0.000	NU
Advanced Placement	Conversion	0.00		
Transferred to Term FA 2014 as				
TRN	XNU	TRN-Unsatisfactory Tran Crse	0.000	NU
Advanced Placement	Conversion	0.00		
Transferred to Term FA 2014 as				
PHYS	250	Intro Phys I	4.000	TR
Advanced Placement	Conversion	0.00		
Transferred to Term FA 2014 as				
PHYS	251	Intro Physics II	4.000	TR
Advanced Placement	Conversion	0.00		
Transferred to Term FA 2014 as				
TRN	XNU	TRN-Unsatisfactory Tran Crse	0.000	NU
Advanced Placement	Conversion	0.00		
Transferred to Term FA 2014 as				
TRN	XNU	TRN-Unsatisfactory Tran Crse	0.000	NU
Advanced Placement	Conversion	0.00		
Transferred to Term FA 2014 as				
TRN	XNT	TRN-Non-Transferable Course	0.000	NT
Advanced Placement	Conversion	0.00		
Transferred to Term FA 2014 as				
TRN	XNU	TRN-Unsatisfactory Tran Crse	0.000	NU

End of Undergraduate Advising Transcript