

## Science Undergraduate Laboratory Internships (SULI)

Summer 2022 - Application for: Emily Dang

### APPLICANT PROFILE

#### General Applicant Information

First Name: Emily

Middle Name:

Last Name: Dang

Previous Last Name(s): edang

Primary Email Address: edang@villanova.edu

Alternate Email Address 1:

Alternate Email Address 2:

ORCID: [0000-0003-4949-3515](https://orcid.org/0000-0003-4949-3515)

#### Current Address

Primary Phone Number: 610-314-8109

Alternate Phone Number:

#### Citizenship/Languages/Eligibility Information

I will be 18 years of age or older by the time the internship begins: Yes

Are you a U.S. Citizen? Yes

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### EDUCATIONAL BACKGROUND

#### Academic Information

Are you currently attending a community college or 2-year college?

No

Current academic status:

Freshman

If you are selected as a participant in this DOE program, will you receive academic credit from your university/college for participating?

No

#### Undergraduate Institution Information

College/University Country: United States and U.S. Territories

College/University State/Province/Territory: Pennsylvania

College/University Name: Villanova University

College/University Address: 800 Lancaster Ave

College/University City: Villanova

College/University Zip Code: 19085-1699

Expected/Declared Major: Engineering - Chemical

Expected Degree From This College/University: Bachelor's

Expected/Completed Graduation Date: May / 2025

Transcript: transcript.pdf

Does this institution provide grades? Yes

GPA Scale: 4.0

Total Attempted Credits: 18.50

Total Earned Credits: 18.50

Total Quality Points: 72.00

GPA: 3.89

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### Science, Technology, Engineering and Mathematics (STEM) Courses

**Course Title:** Calculus II

**Course Number:** 1505

**Enrollment Status:** Recently Completed

**Course Title:** Egr. Interdisciplinary Proj. I

**Course Number:** 1200

**Enrollment Status:** Recently Completed

**Course Title:** General Chemistry I

**Course Number:** 1151

**Enrollment Status:** Recently Completed

**Course Title:** General Chemistry Lab I

**Course Number:** 1103

**Enrollment Status:** Recently Completed

### Awards or Honors

**Award Title:** Society of Women Engineer Award

**Month & Year Received:** May / 2021

**Awarding Institution:** B. Reed Henderson High School

**Award Title:** Air Force Highest GPA in Math and Science Award

**Month & Year Received:** May / 2021

**Awarding Institution:** B. Reed Henderson High School

### High School Graduation or GED

**Date of High School Graduation or GED:** June / 2021

**Country:** United States

**City:** West Chester

**State/Province/Territory:** PA

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### WORK EXPERIENCE & SKILLS

#### Work Experience

<b>Name of Place of Employment or Activity:</b>	Party City
<b>Dates of Employment or Activity:</b>	From 8/14/2020 To 7/26/2021
<b>Hours Per Week:</b>	14.5
<b>Primary Duties:</b>	Help shoppers locate specific items, answer customer inquiries regarding goods and services, arrange merchandise on store shelves, recommend products to shoppers
<b>Tasks Performed:</b>	Rang customer items as cashier, assisted with balloon orders, arranged merchandise on store shelves, recovered items and placed them back in respective spots, unload stock items from a truck

#### Professional Associations

<b>Are you a member of any professional organizations?</b>	No
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#### Computer Skills

<b>Computer related skills:</b>	<ol style="list-style-type: none"> <li>1. Microsoft Office</li> <li>2. SolidWorks</li> <li>3. Arduino Coding</li> <li>4. Cura Lulzbot- 3D Printing Service</li> </ol>
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#### Laboratory/Technical Skills

<b>Experience with advanced laboratory techniques or equipment:</b>	<ol style="list-style-type: none"> <li>1. Lab Terminology- identify and use lab equipment such as beakers, Buchner funnels, graduated cylinders, etc.</li> <li>2. Selective Precipitation- perform experiments to decide which solutions mixed together can produce a precipitate; ability to determine how much of an element is in a specific compound</li> <li>3. Titrations- used Erlenmeyer flask and buret to carry out titrations; determine the concentration of an unknown acid with a known base</li> </ol>
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## Science Undergraduate Laboratory Internships (SULI)

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### PROGRAM INFORMATION

#### Eligibility

Have you previously participated in 2  
SULI appointments? No

#### Previous DOE Internship/Fellowship Experience

Have you ever had an  
internship/fellowship with the  
Department of Energy or any of its  
National Laboratories? No

#### Availability

What is the earliest date you can  
begin your internship? 5/14/2022

When do you need to complete your  
internship? 8/13/2022

#### First Choice Host DOE Laboratory

DOE Laboratory: Brookhaven National Laboratory (BNL)

First Choice Research Area: Engineering Chemical

Second Choice Research Area: Atomic, Molecular, and Optical Sciences

Third Choice Research Area: Engineering Biological (nonmedical)

#### Second Choice Host DOE Laboratory

DOE Laboratory: Thomas Jefferson National Accelerator Facility (TJNAF)

First Choice Research Area: Engineering Chemical

Second Choice Research Area: Nuclear Physics

Third Choice Research Area: Computational Biology

#### Relatives Employed at DOE Laboratories

Are you a relative of an employee at  
the proposed host DOE laboratories? No

## Science Undergraduate Laboratory Internships (SULI)

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### ESSAYS

#### Research Experience:

Throughout my first semester at Villanova University, I participated in two complex projects that required intense interaction with peers and vigorous research. The first project required my team and me to help the World Health Organization achieve its goal of helping third-world countries. We designed a childbirth kit to assist women in third-world countries, seeing as they have limited access to hospitals and doctors through independent research we conducted. A writing report was developed where we had various roles as well. I helped determine the overall reliability of the childbirth kit, considering all factors such as money, distribution among countries, and items (dimensions, amounts) needed. Working on this project happened independently, but whenever someone needed assistance with a particular section of the report, I would always lend a hand in helping them come up with certain ideas.

The second complex project I participated in definitely challenged me to work within a group more than the first project. While the first project mainly consisted of independent writing, the second required both writing and creating. The second project required my team and me to create a spectrophotometer. Through the usage of SOLIDWORKS and Arduino Code, we designed a spectrophotometer that would record the rate of an enzymatic reaction. For eight weeks, there were many trials and errors regarding the overall design of the spectrophotometer. There were necessary adjustments that needed to be made weekly, and a lot of time was spent as a team to work out the issues of our spectrophotometer design. However, we were able to conjure together and solve those issues to have a working spectrophotometer that measured the rate of enzymatic reactions of different enzyme concentrations. For this project, we independently had different roles concerning the writing report. I wrote the analysis portion since I created a Michaelis-Menten and Hannes-Woolf plot that displayed our data. Since the rest of my group members did not feel confident in their graphing abilities, I volunteered to plot our data so that we could analyze our results.

For both projects, I strived to independently fulfill my portion to the best of my ability. If anyone needed help, or if there was a role unassigned, I would jump to that position and complete it. Working in a group made me realize the importance of communication while also collaborating individually and as a group.

#### Research Interests:

The two host laboratories I chose were the Brookhaven National Laboratory and the Thomas Jefferson National Accelerator Facility. Both laboratories piqued my interest due to the various research opportunities and topics they had, but I mainly chose these laboratories due to their close proximity with my home right now, compared to the other laboratories.

For both of the laboratories, I chose Chemical Engineering as my first choice research area. As the major I am pursuing right now, I find it interesting how I can expand my knowledge in regards to the effects of energy and climate change. Climate change is insanely scary, seeing as I witnessed my hometown area being close to 70 degrees at the end of December and the next day expecting snow... I would love to see the effects this would leave on the environment and discover ways to reduce its effects by developing certain chemical processes or even physical products.

When reading descriptions of the Brookhaven National Laboratory, what drew my eye was the possibility of "designing new materials at the nano-scale." Ever since my obsession with the game, Minecraft, I love to design, build and create objects and materials. Minecraft is still my all-time favorite video game that helped me grow into my love of creation. When my eyes first saw the words "designing," the laboratory drew me in and hooked me. Although I have no idea what materials can be made at the nano-scale, simply the idea of creating things that are extremely tiny sounded very interesting and fun!

On the other hand, what drew me to the Thomas Jefferson National Accelerator Facility was its emphasis on nuclear physics. Since nuclear physics deals with studying protons and neutrons, it piqued my interest in how protons and neutrons really interact with each other. In chemistry, protons and neutrons would only be described as "positive" and "neutral." They were also used as identification factors of which element or isotope a particular atom is. There would be no explanation for how they work with each other. Studying nuclear physics would allow me to connect both protons and neutrons to the chemistry world, allowing me to have a better understanding and identity of them rather than only knowing their charges.

#### Personal Experience:

A "sweat" (a person who tries too hard in school) is the label my friends assigned to me. Throughout high school and the first semester of freshman year, I poured my heart, brain, and soul into academics. Sleep felt like a bother at times, limiting the amount of time I had to get ahead in assignments or in the class in general. Yes, I am the type of person to work on assignments that are due the next week. Sometimes, if I find an easier assignment due later, I would do that first and then resort back to the assignment due that week. I always enjoy looking ahead of when things are due, and I also have in my Notes section within my iPhone, labeled "College HW," carefully detailed plans of the days and what assignments I should accomplish. There would be a million items of assignments, projects, and exams in that note list and I would try my best to finish those in order to enjoy hangouts with friends and family. Planning and mapping out my entire workload schedule allowed me to be free on some days, creating days where I napped, rested, and chilled the entire day. Because of my enthusiasm and work ethic with planning, creating, and executing academics, I believe these qualities demonstrate that I will be an excellent member of the

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	<p>SULI Program.</p> <p>Not only because of my academics, but I have also shadowed professionals, such as doctors and nurses during my senior year of high school that taught me traits that will enable me to become an excellent contributing member to the program. I was a part of the Allied Health program, allowing me to attend rotations and clinical at a local hospital. Before shadowing these health professionals, I learned proper etiquette in addressing them respectfully while also going out of my comfort zone to talk to them if I noticed anything wrong or to ask questions in regards to what they were doing. This experience granted me the ability to confidently communicate with adults and those with much more knowledge and experience than me. Sometimes, the professionals I shadowed would not bother to talk to a high school girl, but these feelings and experiences allowed me to grow a tough skin and to embrace the knowledge given to me either indirectly or directly. Whenever a researcher needs a paper due at the crack of dawn or if I need to talk to a high-end professional researcher, I would not hesitate to utilize the skills I have in order to learn and grow as an individual.</p>
<b>Professional Goals:</b>	<p>Before coming to college, I never put a thought into what I would want to get out of college. Of course, I would love to get my degree! However, I am still uncertain whether I want to pursue a master's degree or major/minor in other fields of study. Frankly, I am still unsure whether chemical engineering is the right path for me. If I am granted the opportunity to research at the participating laboratories, and research within the chemical engineering area, I can determine whether this is really the major I want to continue pursuing during my time at Villanova University. I do not want to look back at all of the other majors I could have pursued if I turned out not to like chemical engineering. Moving forward in my academic career, I want to find a subject I am interested in and also passionate about.</p> <p>In the professional sense, a long-term goal of mine is to advance my skills. As a freshman, completely new to any type of research or serious data programming, I do not want to be seen as a liability to people if I am put into a situation where I need to help a scientist or even professor with their research. I want them to be able to completely put their trust in me and realize that I would not let them down with my skills. Right now, I feel that my skills are lacking in that department, and I would love the opportunity to expand my skills and work ethic.</p> <p>Participating in the SULI program will allow me to fulfill both of my long-term goals. I would be able to determine if chemical engineering is the right major for me. There are many different sections of chemical engineering I can go into, ranging from research to pharmaceutical. I am interested in many sections, and because of this, it puts me into a predicament where I am frazzled and confused on what direction I should take first. The internship would allow me to focus on one or two sections, allowing me to narrow down my options in pursuit of a career I enjoy. My participation in this program would allow me to not only expand my skillset, but it would also allow me to connect with experienced professionals and peers around my age. In case I desire an internship, more research opportunities, or even letters of recommendation, I can contact the people I meet during this program to help assist me. The SULI program can immensely benefit me academically and professionally, and I hope that I am granted the opportunity to start fulfilling these long-term goals of mine.</p>

### RECOMMENDATIONS

<b>Recommendation 1:</b>	<p><b>First Name:</b> Joseph  <b>Last Name:</b> Loya  <b>Email:</b> joseph.loya@villanova.edu  <b>Status:</b> Received 1/4/2022</p>
<b>Recommendation 2:</b>	<p><b>First Name:</b> Kathleen  <b>Last Name:</b> Acker  <b>Email:</b> kathleen.acker@villanova.edu  <b>Status:</b> Received 1/6/2022</p>



Student No: 02396139

Date Issued: 30-DEC-2021  
EXTL

Record of: Emily Dang

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Issued To: EMILY DANG  
EDANG@VILLANOVA.EDU

Course Level: Undergraduate

SUBJ NO.	COURSE TITLE	CRED GRD	PTS R
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TRANSFER CREDIT ACCEPTED BY THE INSTITUTION:

Pre-Admit                      Advanced Placement Credit-CEEB

MAT 1500	Calculus I	4.00 AP
Ehrs: 4.00	GPA-Hrs: 0.00	QPts: 0.00 GPA: 0.00

INSTITUTION CREDIT:

Term:                      Fall 2021  
Engineering  
Chemical Engineering

ACS 1000	Ancients	3.00 A	12.00
CHM 1103	General Chemistry Lab I	1.00 A	4.00
CHM 1151	General Chemistry I	4.00 A	16.00
EGR 1001	Career Compass First Yr A	0.50 S	0.00
EGR 1200	Egr. Interdisciplinary Proj. I	3.00 A	12.00
MAT 1505	Calculus II	4.00 A	16.00
THL 1000	Faith, Reason, & Culture	3.00 A	12.00
Term: Ehrs: 18.50	GPA-Hrs: 18.00	QPts: 72.00	GPA: 4.00

Spring 2022  
IN PROGRESS WORK

ACS 1001	Moderns	3.00 IN PROGRESS
CHE 1102	Material Balances	3.00 IN PROGRESS
CHM 1104	General Chemistry Lab II	1.00 IN PROGRESS
CHM 1152	General Chemistry II	4.00 IN PROGRESS
EGR 1002	Career Compass First Yr B	0.50 IN PROGRESS
MAT 2705	Diff Equation with Linear Alg	4.00 IN PROGRESS
PHY 2400	Physics I Mechanics	3.00 IN PROGRESS

In Progress Credits                      18.50

\*\*\*\*\* TRANSCRIPT TOTALS \*\*\*\*\*

	Earned Hrs	GPA Hrs	Points	GPA
TOTAL INSTITUTION	18.50	18.00	72.00	4.00
TOTAL TRANSFER	4.00	0.00	0.00	0.00
OVERALL	22.50	18.00	72.00	4.00

\*\*\*\*\* END OF TRANSCRIPT \*\*\*\*\*

Pamela J. Braxton, Registrar



**VILLANOVA UNIVERSITY, 800 LANCASTER AVENUE, VILLANOVA, PA 19085-1694**

**OFFICE OF THE REGISTRAR (610) 519-4030**

[www.registrar.villanova.edu](http://www.registrar.villanova.edu)

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**INFORMATION TO ACCOMPANY TRANSCRIPTS**

**GRADING SYSTEM**

**KEY TO NOTATIONS**

**GRADUATE:**

A	Outstanding
A-	
B+	
B	Good
B-	
C+	
C	
F	Failure
WX	Approved Withdrawal (without penalty)*
IP	In Progress - assigned in Thesis and in Research*
N	Incomplete*
NF	Failure to remove Incomplete grade
NG, NGR	No Grade Reported*
AU	Audit*
CE	Credit by Examination*
(P), P	Passing - assigned in Pass/Fail Courses*
(F), F#	Failure - assigned in Pass/Fail Courses*
S	Satisfactory - assigned in Satisfactory/Unsatisfactory courses* (S indicates a grade of C or higher)
U	Unsatisfactory -Assigned in Satisfactory/Unsatisfactory courses*
T	Transfer credit*
OC	Indication of Off-Campus Enrollment effective Fall 2012

Passing grades in Pass/Fail and Satisfactory/Unsatisfactory courses are counted in credits earned.

\* Indicates grades not counted into the graduate Grade Point Average.

Minus grades were initiated in Fall 1995 semester for all programs except Graduate Business programs who adopted minus grades in Fall 2002 semester. C- is not a valid grade in Graduate Arts & Sciences and Graduate Business programs. As of 2010, C- is not a valid grade in Graduate Engineering and Graduate Nursing programs.

All credits counted toward graduation are included in the credits earned figure. Only Villanova credits are included in the computation of the cumulative average.

**UNDERGRADUATE:**

A	Excellent
A-	
B+	
B	Good
B-	
C+	
C	Fair
C-	
D+	
D	Passing
D-	
F	Failure
XF	Failure due to excessive absences (freshmen only) (eliminated as a separate grade in Spring 1995)
Y	Unofficial withdrawal from course (also, beginning in Spring 1995, failure due to excessive absences for freshmen only)
WX	Approved Withdrawal (without penalty)*
W	Approved Withdrawal (with penalty)*
N	Incomplete*
NF	Failure to remove Incomplete grade
NG, NGR	No Grade Reported*
AU	Audit*
CE	Credit by Examination*
(P), P	Passing - assigned in Pass/Fail Courses*
(F), F#	Failure - assigned in Pass/Fail Courses*
S	Satisfactory - assigned in Satisfactory/Unsatisfactory courses* (S indicates a grade of C or higher)
U	Unsatisfactory - Assigned in Satisfactory/Unsatisfactory courses*
T	Transfer credit*
AP	Advanced Placement (College Board AP Test or Intl Baccalaureate program)*
IP	In Progress - assigned in Thesis and in Research*
OC	Indication of Off-Campus Enrollment effective Fall 2012

Passing grades in Pass/Fail and Satisfactory/Unsatisfactory courses are counted in credits earned.

\* Indicates grades not counted into the Grade Point Average.

Minus grades were initiated in Fall 1995. Plus grades were initiated in the Spring 1970 Semester. On some records: H beside credit hours indicates Honors sections, R beside course number indicates course taken at Rosemont College through inter-institutional program.

**GRADE VALUES**

GRADE	QUALITY POINTS	GRADE	QUALITY POINTS
F	0.0	XF	0.0
W	0.0	Y	0.0
NF	0.0		

**BEGINNING FALL 1995 \*\***

GRADE	QUALITY POINTS	GRADE	QUALITY POINTS
A	4.0	A	4.00
B+	3.5	A-	3.67
B	3.0	B+	3.33
C+	2.5	B	3.00
C	2.0	B-	2.67
D+	1.5	C+	2.33
D	1.0	C	2.00
		C-	1.67
		D+	1.33
		D	1.00
		D-	.67

Graduate Business programs adopted minus grades and new values in the Fall 2002 semester.

**Graduate Tax Program Grades/Values:**

A	Excellent	4.00	D	Unsatisfactory	1.00
B+	Outstanding	3.50	F	Failure	0.00
B	Very Good	3.00	P	Pass in P/F courses*	
C+	Good	2.50	F#	Failure in P/F courses*	
C	Satisfactory	2.00	AU	Audit*	
C-	Marginally Satisfactory	1.75			
WX	Approved Withdrawal without penalty*				
XG	Re-examination of previously failed course; computed as "D" for GPA				
*	Indicates grades not counted into the Grade Point Average				

A STUDENT'S AVERAGE IS DETERMINED by multiplying the number of credits for each course by the allotted quality points for the grade received, then dividing the total credits attempted into the total quality points earned. Beginning September 1964, only Villanova credits are computed into the cumulative average.

The "&" sign next to the letter grade indicates that the grade was deleted from the computation of the GPA by order of the Dean.

An "A" appearing to the right of the quality points indicates that the course was a repeat (and not counted in credits earned).

Transfer credits from other institutions are shown under a heading "Transfer Credits" and/or have a grade of "T".

COURSE NUMBERS below 7000 are undergraduate level courses. Course numbers 7000 to 7999 are graduate courses to which qualified undergraduates are admitted for undergraduate credit. Courses 8000 and above are generally limited to graduate students only.

FIGURES PRINTED BELOW EACH SEMESTER'S ROSTER are explained by the headings or, if there are no headings: Semester Credits Attempted, Credits Earned, Quality Points, Grade Point Average and (on undergraduate records) Rank in Class by College and Rank in Major. Graduate Students are not ranked.

Rank in Class and Major (where noted) is based on Cumulative GPA. As of the Spring 2008 semester, Villanova no longer calculates Rank.

ONE UNIT OF CREDIT is granted for at least one lecture or recitation period per week, each period to be not less than 50 minutes. One laboratory period of not less than 2 hours duration is considered the equivalent of one lecture or recitation period.

DISMISSAL by Academic Standing Committee is noted on undergraduate records. Academic Probation and disciplinary actions generally do not appear on the academic record.

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# SULI PROGRAM APPLICATION RECOMMENDATION FOR EMILY DANG

## Recommender Contact Information

- **First Name:** Joseph
- **Last Name:** Loya
- **Title:** Associate Professor
- **Department:** Theology and Religious Studies
- **Institution/Organization:** Villanova University
- **Telephone:** 610-519-7243
- **Email:** joseph.loya@villanova.edu

## Applicant Information

### Association

Describe your relationship to the applicant, including how long you've known the applicant, where, and in what capacity.

Emily excelled as a student in my recent fall, 2021, THL 1000: "Faith, Reason and Culture" course.

### Applicant Comments

Please provide substantive comments about the applicant's education, training, aptitude, or promise relevant to the SULI program. Include any relevant additional detail or perspective regarding the applicant's research experience or equivalent experience on complex projects, including the level of independence or other factors that would contribute to the applicant's ability to make an excellent contribution to the SULI program.

My teaching employs a philosophy of education that belies the notion that the educative process entails the mere accumulation of facts; rather, education is the process of developing the capacity to extend beyond one's own personal worldview (i.e., reality and values construct) into the realm of another's personal or cultural worldview for the purpose of nurturing knowledge of and respect for who and what is "other." Emily fulfilled her educational exercises proficiently and with aplomb.

I have been teaching in Villanova classrooms since 1979. As the "A" student she is, Emily holds place among the top ten of the many students I have been privileged to instruct. Her in-class attentiveness, augmenting concerted preparedness, was of "role model" quality for her peers. Her comments were invariably insightful, balanced and constructive. Her responses also demonstrated mature in-depth reflection upon, and personalization of, the theories, concepts, and/or strategies presented throughout the class meetings. Her interventions at times carried discussions by building upon the perspectives of others, thus enhancing the educational experience for all – including myself. The depth and soundness of her objective and subjective exam answers and written assignments attested to keen systematic, analytical and interpretive acumen.

In a totally-masked classroom setting marked with free-floating Covid-conscious anxiousness, Emily's presence was calming and stabilizing; this owing to in her innately tranquil, purposeful and efficient demeanor and ability to empathize with others. (This aptitude surfaced through her personal journal entry assignments.)

I submit this recommendation enthusiastically and without reservation.

## Applicant Rating

In comparison to other undergraduate students, please rate the applicant relative to his/her peers on the following qualifications:

	Do Not Know	Below Average	Average	Above Average	Superior
Analytical and Mathematical					X
Experimental Research	X				
Overall Academic					X
Initiative and Self Reliance					X
Motivation toward Scientific Career					X
Originality of Thought					X
Emotional Maturity					X
Ability to Work with Others					X
Potential for Leadership					X
Oral Communication Skills					X
Written Communication Skills					X

# SULI PROGRAM APPLICATION RECOMMENDATION FOR EMILY DANG

## Recommender Contact Information

- **First Name:** Kathleen
- **Last Name:** Acker
- **Title:** Associate Teaching Professor
- **Department:** Mathematics and Statistics
- **Institution/Organization:** Villanova University
- **Telephone:** 610-519-4809
- **Email:** kathleen.acker@villanova.edu

## Applicant Information

### Association

Describe your relationship to the applicant, including how long you've known the applicant, where, and in what capacity.

Emily Dang is currently matriculating as a chemical engineering major at Villanova University. The curriculum requires her to complete a sequence of mathematical foundation courses designed to meet the needs of the students majoring in mathematics, engineering, and science. Emily came to Villanova having earned Advanced Placement Credit which exempted her from our first course in calculus for engineers. Her first year then began with her completion of my Fall 2021 section of Calculus II. Emily earned an A for my course.

### Applicant Comments

Please provide substantive comments about the applicant's education, training, aptitude, or promise relevant to the SULI program. Include any relevant additional detail or perspective regarding the applicant's research experience or equivalent experience on complex projects, including the level of independence or other factors that would contribute to the applicant's ability to make an excellent contribution to the SULI program.

I can attest to the following: Emily Dang is a hardworking and conscientious student. Emily worked toward excellence and understanding in my class. She approached her responsibilities with a ready to learn attitude. She likes to be challenged. She is comfortable asking questions. She works well with others as evidenced by her interaction with her peers and her completion of group work, which was exemplary.

Recently, Villanova University was #49 in the top National Universities by *U.S. News and World Report's* 2022 "Best College" rankings. Emily is matriculating with some of the best and brightest students in the country and she is doing well in our competitive environment.

Her first semester work resulted in her inclusion on the Dean's List for the College of Engineering. This is a nice benchmark of success, especially for a freshman. Her academic career has started well, and I am confident that Emily will continue to do commendable work during her time at Villanova.

If I were looking for a student to include in your program, I would accept Emily. Emily is smart. She has good people skills. She is excellent at time management. She has a positive attitude, even if things are difficult. Emily likes to learn, and she makes friends easily. In my opinion, these characteristics make her an excellent candidate for the Science Undergraduate Laboratory Internships (SULI).

Please consider giving her this opportunity. I am happy to recommend her without reservation.

Applicant Rating

In comparison to other undergraduate students, please rate the applicant relative to his/her peers on the following qualifications:

	Do Not Know	Below Average	Average	Above Average	Superior
Analytical and Mathematical					X
Experimental Research					X
Overall Academic					X
Initiative and Self Reliance					X
Motivation toward Scientific Career					X
Originality of Thought					X
Emotional Maturity					X
Ability to Work with Others					X
Potential for Leadership					X
Oral Communication Skills					X
Written Communication Skills					X