# Worcester Polytechnic Institute Unofficial Transcript

ACADEMIC LEVEL: Undergraduate Record PROGRAMS OF STUDY:

Aerospace Engineering (BS)

Aeronautical Track

NAME: Tyler Guertin ID: 658426175

PRINT DATE: 2022-07-18

**DECLARE DATE: 2019-08-15** 

### **Transfer Credit**

TERM	COURSE	GRADE	ATTEMPTED	EARNED
TR	MA 1022 - Calculus II	L	3	3
TR	HI 1100 - HISTORY ELECTIVE	L	3	3
TR	ENV 1000 - ENVIRONMENTAL STUDIES ELECTIVE	L	3	3
TR	MA 1021 - Calculus I	L	3	3

# 2019 Fall Semester

#### Dean's List

TERM	COURSE	GRADE	ATTEMPTED	EARNED
A19	MU 1611 - Fundamentals Of Music I	A	3	3
A19	PH 1110 - General Physics-Mechanics	A	3	3
A19	MA 1023 - Calculus III	В	3	3
B19	PE 2011 - Varsity Mn & Wmn Indr Track Tm	A	0.75	0.75
B19	MU 203X - Music In Time Of Conflict	A	3	3
B19	MA 1024 - Calculus IV	A	3	3
B19	PH 1120 - Gen. Physics-Elec-Magnet	A	3	3
F19	MU 2636 - Concert Band	Α	1.5	1.5

## 2020 Spring Semester Dean's List

TERM	COURSE	GRADE	ATTEMPTED	EARNED
C20	MU 3614 - Topics In Midi:	A	3	3
C20	MA 2051 - Ordinary Differ. Equations	A	3	3
C20	CH 1010 - CM Prop, Bonding & Forces	A	3	3
C20	PE 2011 - Varsity Mn & Wmn Indr Track Tm	A	0.75	0.75
D20	MA 2071 - Matrices&Linear Algebra I	A	3	3
D20	AE 2550 - Atmosphric & Space Environmnts	A	3	3
D20	ES 2001 - Intro To Material Science	A	3	3
S20	MU 2636 - Concert Band	A	1.5	1.5

# 2020 Fall Semester

#### **Dean's List**

TERM	COURSE	GRADE	ATTEMPTED	EARNED
A20	AE 2712 - Intro To Aerospace Structures	A	3	3
A20	ES 2503 - Intro To Dynamic Systems	A	3	3
A20	ES 3001 - Intro To Thermodynamics	A	3	3
B20	AE 3712 - Aerospace Structures	A	3	3
B20	AE 2713 - Astronautics	A	3	3

B20	PE 2011 - Varsity Mn & Wmn Indr Track Tm	A	0.75	0.75
B20	DS 1010 - Ds I: Intro To Data Science	A	3	3

# **2021 Spring Semester**

#### **Dean's List**

TERM	COURSE	GRADE	ATTEMPTED	EARNED
C21	AE 3602 - Incompressible Fluids	A	3	3
C21	AE 4717 - Fndmntls Of Composite Materls	A	3	3
C21	ME 3901 - Engineering Experimentation	A	3	3
D21	AE 3713 - Intro Aerospace Contrl Systems	A	3	3
D21	PE 2014 - Varsity Mn&Wmn Outdr Track Tm	A	0.75	0.75
D21	ME 1800 - Mfg Sci, Prtpng & Cmp-Cntr Mch	A	3	3
D21	HU 3910 - Prac In Hua:Instrmntl Mu Perf	A	3	3

# 2021 Summer Semester

TERM	COURSE	GRADE	ATTEMPTED	EARNED
E21	CDR HUA - Completion of Degree Requirement HUA	A	0	0

### 2021 Fall Semester

TERM	COURSE	GRADE	ATTEMPTED	EARNED
A21	AE 4733 - Guidance, Navigation And Communication	В	3	3
A21	AE 5032 - Aerospace Engineering Seminar	P	0	0
A21	AE 3410 - Compressible Fluid Dynamics	A	3	3
B21	AE 5032 - Aerospace Engineering Seminar	P	0	0
B21	AE 3711 - Aerodynamics	A	3	3
B21	AE 5432 - Composite Materials	A	3	3
F21	MU 2637 - Orchestra	P	0	0
F21	MU 2636 - Concert Band	P	0	0
F21	MA 501 - Engineering Mathematics	A	4.5	4.5

# 2022 Spring Semester

### **Dean's List**

TERM	COURSE	GRADE	ATTEMPTED	EARNED
C22	AE 5131 - Incompressible Fluid Dynamics	A	3	3

	C22	AE 4723 - Aircraft Dynamics And Control	A	3	3
	C22	ID PQP - DRONE TEAMWORK	A	1.5	1.5
	C22	ID 2050 - SOC SCI RES-IQP- Russia (WI)	A	3	3
Γ	D22	PC 1000 - Project Center - Russia	AT	0	0
	D22	ID IQP - DRONE TEAMWORK	A	9	9
	D22	CDR IQP - Completion of Degree Requirement IQP	A	0	0
	S22	MU 2636 - Concert Band	P	0	0
	S22	MU 2637 - Orchestra	P	0	0

## 2022 Summer Semester

TERM	COURSE	GRADE	ATTEMPTED	EARNED
E22	OBC 505 - Teaming And Organizing For Innovation	In	4.5	0
		Progress		

## 2022 Fall Semester

TERM	COURSE	GRADE	ATTEMPTED	EARNED
A22	AE MQP - Micro-Aircraft Design	In Progress	3	0
A22	AE 5234 - Sustainable Energy Systems	In Progress	3	0
A22	AE 4210 - Fundamentals of Air-Breathing Propulsion	In Progress	3	0
B22	AE 5031 - Applied Computational Methods for Partial Differential Equations	In Progress	3	0
B22	AE 4510 - Aircraft Design	In Progress	3	0
B22	AE MQP - Micro-Aircraft Design	In Progress	3	0

# 2023 Spring Semester

TERM	COURSE	GRADE	ATTEMPTED	EARNED
C23	AE MQP - Micro-Aircraft Design	In Progress	3	0
C23	AE 5231 - Air Breathing Propulsion	In Progress	2	0
C23	AE 5331 - Linear Control Systems	In Progress	2	0
D23	AE 5233 - Combustion	In	2	0

	A 50	0.00	Progress		L	4 0 0 0	0.000	0.00	
D23	AE 5132 - Compressible Fluid Dynamics  AE 4410 - Fundamentals of Structural Dynamics		In Progress	2	0				
D23	AE 4410 - Fundamen  AE MQP - Micro-Air	Progress		0					
D23	AE MQF - MICIO-AII	crart Design	In Progress	1.5	0				

#### **CDR HUA - Completion of Degree Requirement HUA**

2021 Summer Semester

**GRADE: A** 

#### **Instrumental Performance Practicum - Trumpet**

For my practicum, I worked on perfecting and performing the Hummel Trumpet Concerto. Focusing on stylistic aspects, as well as physical performance etiquette. The practicum ended with a live performance outside of Alden Hall, where students and faculty were able to observe the performance. Throughout the term, the focus was on growing musically and as a performer and presenter.

#### **CDR IQP - Completion of Degree Requirement IQP**

2022 Spring Semester

**GRADE:** A

#### Multi-Domain Vehicle Concept for Detecting Oil-Based Water

This project explores the environmental issue of chronic oil-based water pollution in the Baltic Sea. The goal of this project was to consider deign options and propose solutions for a sustainable autonomous aerial-aquatic vehicle (AAV) that can survey the Baltic Sea and detect and map oil pollution. Literature reviews and interviews with experts were conducted to compile an applicable set of considerations and propose a concept for an AAV. This became part of into a concept fixed-wing design composed of carbon fiber composites featuring oil detection sensors, a suite of navigation sensors, a single dual-environment propeller, all powered by batteries.