Name: Palmer, Lucas Student ID: 20534173 Ontario Education Nbr: 620341420

Degrees Awarded

Degree:	Bachelor of Mathematics
Confer Date:	06/15/2018
Degree Honours:	With Distinction
Degree Honours:	Dean's Honours List
	Applied Mathematics, Honours, Co-operative Program
	Computer Science, Honours, Co-operative Program
	Computational Mathematics, Honours, Co-operative Program

Beginning of Undergraduate Record

Fall 2013

Program:	Mathematics, H	Ionours, Co-operative Program				
Level:	1A L	oad: Full-Time	Form Of Study: E	nrolment		
-						. .
<u>Course</u>		<u>Description</u>		<u>Attempted</u>	<u>Earned</u>	<u>Grade</u>
CHEM	120	Physical and Chemical Prope	rties of Matter	0.50	0.50	96
CHEM	120L	Chemical Reaction Laborator	y 1	0.25	0.25	94
CS	145	Designing Functional Program	ns (Advanced Level)	0.50	0.50	80
MATH	145	Algebra (Advanced Level)		0.50	0.50	96
MATH	147	Calculus 1 (Advanced Level)		0.50	0.50	95
PHYS	121	Mechanics		0.50	0.50	99
				In GPA	Earned	
Term GP/	A	93.27 Term Totals		2.75	2.75	
Cumulativ	e GPA	93.27 Cumulative Tota	ls	2.75	2.75	
Faculty Av	/erage:	90.33 Mathematics, Ho	nours, Co-operative Progr	am		
Academic	Standing: Exce	llent standing Effective 12/31/2013				
Term Hon	ours: Term	Dean's Honours List				

Winter 2014

Program:	Mathematics, H	Honours, Co-operative Program				
Level:	1B L	.oad: Full-Time	Form Of Study: Er	rolment		
<u>Course</u>		<u>Description</u>		<u>Attempted</u>	<u>Earned</u>	<u>Grade</u>
BIOL	239	Genetics		0.50	0.50	87
CHEM	123	Chemical Reactions, Equilit	oria and Kinetics	0.50	0.50	95
CHEM	123L	Chemical Reaction Laborate	ory 2	0.25	0.25	92
CS	146	Elementary Algorithm Desig	n and Data Abstraction	0.50	0.50	75
		(Advanced Level)	-			
MATH	146	Linear Algebra 1 (Advanced	l level)	0.50	0.50	82
MATH	148	Calculus 2 (Advanced Leve	I)	0.50	0.50	96
PHYS	122	Waves, Electricity and Mag	netism	0.50	0.50	100
PHYS	124	Modern Physics		0.50	0.50	93
		,		In GPA	Earned	
Term GP/	4	89.87 Term Totals		3.75	3.75	
Cumulativ	ve GPA	91.31 Cumulative To	tals	6.50	6.50	
Faculty A			Honours, Co-operative Progra			
	0					

Academic Standing: Excellent standing Effective 04/30/2014 S&P Feb 4/14 Petition to enrol in seven courses for the winter 2014 term, granted. ms

Term Honours: Term Dean's Honours List

Name: Palmer, Lucas Student ID: 20534173 Ontario Education Nbr: 620341420

Fall 2014

			all 2014			
Program:		s, Honours, Co-operative Program				
Level:	2A	Load: Full-Time	Form Of Study: Enro	olment		
<u>Course</u>		Description		<u>Attempted</u>	<u>Earned</u>	<u>Grade</u>
AMATH	251	Introduction to Differential Equations	(Advanced level)	0.50	0.50	93
CS	245	Logic and Computation		0.50	0.50	92
CS	246	Object-Oriented Software Developme	ent	0.50	0.50	72
MATH	245	Linear Algebra 2 (Advanced Level)		0.50	0.50	90
MATH	247	Calculus 3 (Advanced Level)		0.50	0.50	87
MATH	249	Introduction to Combinatorics (Advar	nced Level)	0.50	0.50	87
STAT	240	Probability (Advanced Level)		0.50	0.50	97
01/11	210			In GPA	Earned	0.
Term GPA	1	88.29 Term Totals		3.50	3.50	
Cumulativ		90.25 Cumulative Totals		10.00	10.00	
			Co anarotivo Drogram		10.00	
Faculty Av	0	87.85 Mathematics, Honours,	Co-operative Program	n		
		xcellent standing Effective 12/31/2014	A 1			
		n to enrol in seven courses for the fall 2014 te	rm after the			
	granted. ms					
Term Hon	ours: T	erm Dean's Honours List				
			nter 2015			
Program:		Science, Honours, Co-operative Program				
	Applied Mat	thematics, Honours, Co-operative Program				
Level:	3A	Load: Full-Time	Form Of Study: Enro	olment		
<u>Course</u>		Description		Attempted	Earned	<u>Grade</u>
AMATH	231	Calculus 4		0.50	0.50	91
AMATH	242	Introduction to Computational Mathe	matics	0.50	0.50	88
CS	240	Data Structures and Data Manageme		0.50	0.50	95
CS	241	Foundations of Sequential Programs		0.50	0.50	88
CS	251	Computer Organization and Design		0.50	0.50	95
PD	1	Co-op Fundamentals		0.50	0.00	CR
STAT	241	Statistics (Advanced Level)		0.50	0.50	93
SIAI	241	Statistics (Advanced Level)		In GPA	Earned	33
Term GPA		91.67 Term Totals		3.50	3.00	
Cumulativ		90.58 Cumulative Totals	0 / P	13.00	13.00	
Major Ave	0	86.43 Computer Science, Hon				
Faculty Av		89.05 Computer Science, Hon	ours, Co-operative Pi	rogram		
		xcellent standing Effective 04/30/2015				
Term Hon	ours: T	erm Dean's Honours List				
		Sp	ring 2015			
Program:	Applied Mat	thematics, Honours, Co-operative Program				
	Computer S	Science, Honours, Co-operative Program				
	Computatio	nal Mathematics, Honours, Co-operative Prog	Iram			
Level:	3B	Load: Part-Time	Form Of Study: Co-	op Work Term		
				•		
Course		Description		Attempted	Earned	<u>Grade</u>
COOP	1	Co-operative Work Term		0.50	0.00	CR
PD	2	Critical Reflection and Report Writing	r	0.50	0.00	CR
	£		2	In GPA	Earned	0.0
Term GPA	`	0.00 Term Totals		1.00	0.00	
Cumulativ		90.58 Cumulative Totals				
Cumulativ	e gra	SO.30 CUMULATIVE LOTAIS		13.00	13.00	

Name: Palmer, Lucas Student ID: 20534173 Ontario Education Nbr: 620341420

Fall 2015

				Fall 2015			
Program:	Computer Scien	ce, Honours, Co-	o-operative Program				
Level:		Mathematics, Hone ad: Part-Time	ours, Co-operative P	Form Of Study: Co-	op Work Term		
<u>Course</u> COOP PD WKRPT Term GPA	2 10 200M	Work-term R	Responsibility in Con	nputing	Attempted 0.50 0.50 0.25 In GPA 1.25	<u>Earned</u> 0.00 0.00 0.00 <u>Earned</u> 0.00	<u>Grade</u> CR CR 89
Cumulativ	e GPA	90.58	Cumulative Totals		13.00	13.00	
Program:	Computer Scien Computational	ce, Honours, Co- Mathematics, Hon	o-operative Program operative Program ours, Co-operative P	rogram	Imont		
Level:	3B Lo	ad: Full-Time		Form Of Study: Enro	Diment		
Course AMATH AMATH CS CS CS PHYS Term GPA Cumulativ Major Ave Major Ave Faculty Av Academic Term Hon	e GPA rage: rage: rage: verage: Standing: Excell	Partial Differe User Interfac Operating Sy Models of Cc Quantum Phy 92.17 90.88 87.40 91.00 91.00	rstems omputation ysics 1 Term Totals Cumulative Totals Computer Science, H Applied Mathematics Computational Mathe Applied Mathematics ctive 04/30/2016	lonours, Co-operative Pr , Honours, Co-operative ematics, Honours, Co-op , Honours, Co-operative	Program erative Program	Earned 0.50 0.50 0.50 0.50 0.50 0.50 Earned 3.00 16.00	Grade 100 89 93 89 87 95
_				Spring 2016			
Program: Level:	Computer Scien Computational	ce, Honours, Co-	o-operative Program operative Program ours, Co-operative Pr		on Work Term		
Level.	4A LC	ad. Pan-Time		Form Of Study. Co-			
<u>Course</u> COOP PD WKRPT	3 3 300M	Description Co-operative Communicati Work-term R	ion		<u>Attempted</u> 0.50 0.50 0.13 In GPA	<u>Earned</u> 0.00 0.00 0.00 Earned	<u>Grade</u> CR CR 89
Term GPA Cumulativ			Term Totals Cumulative Totals		1.13 16.00	0.00 16.00	

<u>Grade</u> 99

100

98

96

95

95

Undergraduate Unofficial Transcript

Name: Palmer, Lucas Student ID: 20534173 Ontario Education Nbr: 620341420

Fall 2016

Program:		ematics, Honours, Co-operative Program		
	Computer Sci	ence, Honours, Co-operative Program		
	Computationa	al Mathematics, Honours, Co-operative Program		
Level:	4A	Load: Full-Time Form	n Of Study: Enrolment	
<u>Course</u>		Description	Attempted	Earned
AMATH	331	Applied Real Analysis	0.50	0.50
AMATH	342	Computational Methods for Differential Equ	uations 0.50	0.50
AMATH	351	Ordinary Differential Equations 2	0.50	0.50
CO	250	Introduction to Optimization	0.50	0.50
CS	341	Algorithms	0.50	0.50
ECON	101	Introduction to Microeconomics	0.50	0.50

			<u>In GPA</u>	<u>Earned</u>
Term GPA	97.17	Term Totals	3.00	3.00
Cumulative GPA	91.87	Cumulative Totals	19.00	19.00
Major Average:	88.09	Computer Science, Honours, Co-operati	ve Program	
Major Average:	93.80	Applied Mathematics, Honours, Co-oper	ative Program	
Major Average:	93.80	Computational Mathematics, Honours, C	Co-operative Program	
Faculty Average:	90.97	Applied Mathematics, Honours, Co-oper	ative Program	
Academic Standing:	Excellent standing Effe	ective 12/31/2016		
Term Honours:	Term Dean's Honours	List		

Winter 2017

Applied Mathematics, Honours, Co-operative Program Program: Computer Science, Honours, Co-operative Program Computational Mathematics, Honours, Co-operative Program

Level: 4B Load: Full-Time Form Of Study: Enrolment

<u>Course</u>		Description	Attempted	<u>Earned</u>	<u>Grade</u>
AMATH	451	Introduction to Dynamical Systems	0.50	0.50	93
AMATH	475	Introduction to General Relativity	0.50	0.50	99
CS	488	Introduction to Computer Graphics	0.50	0.00	WD
CS	489	Advanced Topics in Computer Science	0.50	0.50	98
Course Topic:		Intro to Machine Learning			
CS	489	Advanced Topics in Computer Science	0.50	0.50	93
Course Topic:		Big Data Infrastructure			
PSYCH	101	Introductory Psychology	0.50	0.50	82
			<u>In GPA</u>	Earned	
Term GPA		93.00 Term Totals	3.00	2.50	
Cumulative GF	PA	92.00 Cumulative Totals	21.50	21.50	
Major Average	:	88.85 Computer Science, Honours, Co-operat	ive Program		
Major Average	Average: 94.00 Applied Mathematics, Honours, Co-operative Program				
Major Average	:	94.00 Computational Mathematics, Honours, G	04.00 Computational Mathematics, Honours, Co-operative Program		
Faculty Averag	le:	91.39 Applied Mathematics, Honours, Co-ope	rative Program		

Academic Standing: Excellent standing Effective 04/30/2017

Term Dean's Honours List Term Honours:

Spring 2017

Applied Mathematics, Honours, Co-operative Program Program: Computer Science, Honours, Co-operative Program Computational Mathematics, Honours, Co-operative Program 4B Load: Part-Time Form Of Study: Co-op Work Term Level:

<u>Course</u>		Description	<u>Attempted</u>	Earned	<u>Grade</u>
COOP	4	Co-operative Work Term	0.50	0.00	CR
PD	4	Teamwork	0.50	0.00	CR
WKRPT	400M	Work-term Report	0.13	0.00	89
			<u>In GPA</u>	Earned	
Term GPA		0.00 Term Totals	1.13	0.00	
Cumulative GPA		92.00 Cumulative Totals	21.50	21.50	

Name: Palmer, Lucas Student ID: 20534173 Ontario Education Nbr: 620341420

Fall 2017

Program:	Computer Scie	nce, Honours, Co-	Co-operative Program operative Program ours, Co-operative Pro	ogram			
Level:		oad: Part-Time		Form Of Study: Co	o-op Work Term		
<u>Course</u> COOP Term GPA Cumulativ			Work Term Term Totals Cumulative Totals		<u>Attempted</u> 0.50 <u>In GPA</u> 0.50 21.50	<u>Earned</u> 0.00 <u>Earned</u> 0.00 21.50	<u>Grade</u> CR
			١	Winter 2018			
Program: Level:	Computer Scie Computational	nce, Honours, Co-	Co-operative Program operative Program ours, Co-operative Pro	ogram Form Of Study: En	rolment		
Course AMATH CO CO CS FR PHIL Term GPA Cumulativ Major Ave Major Ave Major Ave Faculty Av Academic Term Hon	e GPA rrage: rrage: rrage: /erage: Standing: Exce	Basic French Moral Issues 92.33 92.04 89.47 94.28 94.28	c OR Models otography nputation for Financia n 1 5 Term Totals Cumulative Totals Computer Science, He Applied Mathematics, Computational Mather Applied Mathematics, ctive 05/18/2018	onours, Co-operative l Honours, Co-operativ matics, Honours, Co-c	e Program perative Program	Earned 0.50 0.50 0.50 0.50 0.50 <u>Earned</u> 3.00 24.50	Grade 94 100 94 88 93 85
				Milestones			
Date Com 09/04/201 09/23/201 08/30/201 12/30/201 12/30/201 08/30/201 08/30/201 08/30/201 12/30/201	3 3 5 5 5 5 6 6 7 7		Description English Proficiency Workplace Hazard Work Report 1 Work Term 1 Work Report 2 Work Report 3 Work Report 3 Work Report 4 Work Term 4 Work Term 5			Status Comp Comp Comp Comp Comp Comp Comp Comp	leted bleted bleted bleted bleted bleted bleted bleted bleted bleted
2014 2015 2016 2016 2017 2017 2017 2017		Schulich Leader Schulich Leader Schulich Leader Computational M President's Rese Schulich Leader	terloo President's Sch Scholarship Scholarship Acholarship Mathematics Upper Ye earch Award Scholarship Mathematics Upper Ye	ar Scholarship			

End of Undergraduate Unofficial Transcript