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XINHE ZHANG

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Carnegie Mellon University Student Name: Xinhe Zhang

Birth Date/Month: 20-May

Date Awarded Degree Awarded

Bachelor of Science in Electrical and Computer Engineering with University Honors May 20, 2018

- Carnegie Institute of Technology Research Honors

	В	eginning of Undergraduate Re	cord								
ADVA	NCED PL	ACEMENT CREDIT				Fall 2)15				
DPT	CRS#	COURSE TITLE	UNITS	FINAL GRADE		DPT	CRS#	COURSE TITLE	UNITS	FINAL GRADE	QUALITY POINTS
CMY ECO	09105 73100	INTRO MOD CHEMSTRY I PRINC OF ECONOMICS	10.0 9.0	AD AD		MLG CS	10601 15150	MACHINE LEARNING PRIN FNCTIONL PRGMMG	12.0 10.0	W W	0.0 0.0
	тот	TAL AP / TRANSFER CREDIT	19.0			CS MSC STA	15539 21259 36217	IND STUDY CS PEDGOGY CALCULUS IN 3-D PROB THEO RNDM PROC	6.0 9.0 9.0	B W W	18.0 0.0 0.0
Fall 20	014				Dean's List	DRA	54187	INTRO TO PLAYWRITING UNITS	9.0 UNITS	A FINAL	36.0 TOTAL
DPT	CRS#	COURSE TITLE	UNITS	FINAL GRADE	QUALITY POINTS	Semes		PASSED 15.0	FACTORED 15.0	QPA 3.60	POINTS 54.0
CS	15112	FNDMTLS OF PGMG & CS	12.0	A	48.0	Cumulative		181.5	155.0	3.88	602.0
ECE MSC	18100 21120	INTRO ELEC COMP ENG DIFFERENTIAL INT CAL	12.0 10.0	A A	48.0 40.0	Spring 2016					
ENG CMU	76100 99101	READ WRITE ACAD CNTX CMPTNG CARNEGIE MELL	9.0 3.0	A P	36.0 0.0	DPT	CDC #	COURCE TITLE	LINITO	FINAL	QUALITY
		UNITS	UNITS	FINAL	TOTAL	CS	CRS #	COURSE TITLE PRIN FNCTIONL PRGMMG	UNITS 10.0	GRADE A	POINTS 40.0
Semes	ter	PASSED 46.0	FACTORED 43.0	QPA 4.00	POINTS 172.0	ECE	18202	MATH FNDTN ELEC ENGR	12.0	В	36.0
Cumula	ative	65.0	43.0	4.00	172.0	ECE ECE	18213 18290	INTR CMPTR SYSTEMS SIGNALS & SYSTEMS	12.0 12.0	A A	48.0 48.0
						CIT	39210	EXPERINTIAL LEARNG I	0.0	Р	0.0
Spring	j 2015				Dean's List	PSY	85251	PERSONALITY UNITS	9.0 UNITS	B FINAL	27.0 TOTAL
DPT	CRS#	COURSE TITLE	UNITS	FINAL GRADE	QUALITY POINTS	Semes	ter	PASSED 55.0	FACTORED 55.0	QPA 3.62	POINTS 199.0
CS MSC	15122 21126	PRIN IMPRTV COMPTATN INTRO MATHMTCL SFTWR	10.0 3.0	A A	40.0 12.0	Cumul	ative	236.5	210.0	3.81	801.0
MSC	21127	CONCEPTS OF MATHMTCS	10.0	Ä	40.0	C	- 4/AII 2	046			
PHY BMD	33106 42101	PHYSICS I ENG STUDNT INTRODUCTION BIOMED	12.0 12.0	A B	48.0 36.0	Summ	ner 1/All 2	016			
PSY	85261	ABNORMAL PSYCHOLOGY	9.0	A	36.0	DPT	CRS#	COURSE TITLE	UNITS	FINAL GRADE	QUALITY POINTS
CMU	99250	SEMINAR PEER TUTORS	4.5	Р	0.0	ECE	18499	INTERNSHIP	3.0	P	0.0
		UNITS PASSED	UNITS FACTORED	FINAL QPA	TOTAL POINTS	202	10.00	UNITS	UNITS	FINAL	TOTAL
Semes		60.5	56.0	3.79	212.0	Semes	tor	PASSED 3.0	FACTORED 0.0	QPA 0.00	POINTS 0.0
Cumula	ative	125.5	99.0	3.88	384.0	Cumul		239.5	210.0	3.81	801.0
Summ	er 1/All 20	015				E. II 0	/				
				FINAL	QUALITY	Fall 2	J16				
DPT	CRS#	COURSE TITLE	UNITS	GRADE	POINTS	DPT	CRS#	COURSE TITLE	UNITS	FINAL GRADE	QUALITY POINTS
MSC MSC	21122 21241	INTEGRTN & APPROX MATRC & LINR TRNSF	10.0 10.0	A A	40.0 40.0	CS	15462	COMPUTER GRAPHICS	12.0	С	24.0
WICO	212-11	UNITS	UNITS	FINAL	TOTAL	ROB	16384	ROBOT KNMATCS DYNMCS	12.0	W	0.0
C		PASSED	FACTORED	QPA	POINTS	ECE ECE	18200 18331	ECE SOPH SEMINAR JUNIOR PROJECTS	1.0 10.0	P A	0.0 40.0
Semest		20.0 145.5	20.0 119.0	4.00 3.90	80.0 464.0	ECE	18370	FNDMNTLS OF CONTROL	12.0	A	48.0
		1.0.0		0.00		STA	36217	PROB THEO RNDM PROC	9.0	В	27.0
Summ	er 2 2015					CIT HSS	39220 66221	EXPERNTL LEARNG II TOPICS OF LAW	0.0 9.0	P A	0.0 36.0
				FINAL	QUALITY			UNITS	UNITS	FINAL	TOTAL
DPT	CRS#	COURSE TITLE	UNITS	GRADE	POINTS	Semes	ter	PASSED 53.0	FACTORED 52.0	QPA 3.37	POINTS 175.0
PHY	33107	PHYSICS II ENG STDNT	12.0	Α	48.0	Cumul		292.5	262.0	3.73	976.0
ENG	76101	INTERPRETN & ARGMNT	9.0	A	36.0				<u></u>		<u> </u>
		UNITS PASSED	UNITS FACTORED	FINAL QPA	TOTAL POINTS						
Semes		21.0	21.0	4.00	84.0 548.0						
Cumul	2011/0	266 E	4400	2 0 4	E40 U						

548.0

A raised seal is not required.

166.5

Cumulative



140.0

3.91



Carnegie Mellon University Student Name: Xinhe Zhang

tudent Name: Xinhe Zhang Birth Date/Month: 20-May

Spring	2017

DPT	CRS#	COURSE TITLE	UNITS	FINAL GRADE	QUALITY POINTS
ECE	18240	STRC DES DIGTL SYSTM	12.0	Α	48.0
ECE	18491	FNDML SIGNL PRCSNG	12.0	В	36.0
STA	36226	INTRO STATCL INFRCE	9.0	В	27.0
BA	70381	MARKETING I	9.0	Α	36.0
		UNITS	UNITS	FINAL	TOTAL
		PASSED	FACTORED	QPA	POINTS
Semester		42.0	42.0	3.50	147.0
Cumulative		334.5	304.0	3.69	1123.0

Spring 2020

Semester Cumulative		76.0	64.0	4.00	256.0
		UNITS PASSED 37.0	UNITS FACTORED 25.0	FINAL QPA 4.00	TOTAL POINTS 100.0
ECE	18980	MS GRADUATE PROJECT	1.0	Α	4.0
ECE	18753	INFORMTION THEORY	12.0	Α	48.0
MLG	10708	PROB GRAPHCL MODELS	12.0	Α	48.0
MLG	10707	ADV. DEEP LEARNING	12.0	S	0.0
DPT	CRS#	COURSE TITLE	UNITS	FINAL GRADE	QUALITY POINTS

End of Graduate Record

Summer 1/All 2017

DPT	CRS#	COURSE TITLE	UNITS	FINAL GRADE	QUALITY POINTS
ECE	18499	INTERNSHIP	3.0	Р	0.0
		UNITS PASSED	UNITS FACTORED	FINAL QPA	TOTAL POINTS
Semester		3.0	0.0	0.00	0.0
Cumulative		337.5	304.0	3.69	1123.0

Fall 2017

Cumulative		382.5	349.0	3.66	1279.0
Semes	ter	UNITS PASSED 45.0	UNITS FACTORED 45.0	FINAL QPA 3.47	TOTAL POINTS 156.0
CIT	39500	HONORS RSCH PROJECT	12.0	Α	48.0
CIT	39402	LDERSP DVEL SEM	9.0	Α	36.0
CIT	39310	EXPERITAL LEARN III	0.0	P	0.0
ECE	18220	ELETRONC DEVC ANL CR	12.0	В	36.0
MLG	10601	MACHINE LEARNING	12.0	В	36.0
DPT	CRS#	COURSE TITLE	UNITS	FINAL GRADE	QUALITY POINTS

Spring	2018				Dean's List
DPT	CRS#	COURSE TITLE	UNITS	FINAL GRADE	QUALITY POINTS
MLG	10703	DEEP RL & CONTROL	12.0	Α	48.0
LTI	11611	NATRL LNGUAG PRCSSNG	12.0	Α	48.0
ECE	18500	ECE DESN EXP	12.0	В	36.0
CIT	39500	HONORS RSCH PROJECT	12.0	Α	48.0
Semest	ter	UNITS PASSED 48.0	UNITS FACTORED 48.0	FINAL QPA 3.75	TOTAL POINTS 180.0
Cumulative		430.5	397.0	3.68	1459 0

End of Undergraduate Record and Beginning of Graduate Record

Fall 2019

UNITS PASSED Semester 39.0 Cumulative 39.0		39.0	39.0	4.00	156.0
		PASSED	UNITS FACTORED 39.0		TOTAL POINTS 156.0
ECE	18980	MS GRADUATE PROJECT	12.0	Α	48.0
ECE	18980	MS GRADUATE PROJECT	15.0	Α	60.0
LTI	11785	INTRO DEEP LRNG.	12.0	Α	48.0
DPT	CRS#	COURSE TITLE	UNITS	FINAL GRADE	QUALITY POINTS

A raised seal is not required.



Carnegie Mellon University

Transcript Information

This information is also available at:

dent-records/transcripts/legend.html

Contact Information

Please direct all questions to The University Registrar's Office:

Carnegie Mellon University Phone: 412-268-4138 University Registrar's Office 5000 Forbes Avenue Fax:412-268-6651

Email:uro-transcrtipts@andrew.cmu.edu Pittsburgh, PA 15213-3890 Website: http://www.cmu.edu/hub

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College and department accreditations include:

- Accreditation Board for Engineering Technology (ABET) Chemical Engineering, Civil Engineering, Electrical and Computer Engineering, Éngineering and Public Policy, Mechanical Engineering, and Materials Science and Engineering
- National Architectural Accrediting Board (NAAB) Architecture
- National Association of Schools of Art and Design (NASAD) Art and Design
- National Association of Schools of Music (NASM) Music American Assembly of Collegiate Schools of Business (AACSB) and Middle Atlantic Association of College of Business Administration (MAACBA) - David A. Tepper School of Business; American Chemical Society (ACS) – Chemistry
 National Association of Schools of Public Affairs and Administration (NAPAA) – H. John Heinz

Language of Instruction

All Carnegie Mellon University courses are taught in English.

Teaching Location

This transcript reflects all Carnegie Mellon coursework, independent of campus or teaching

Carnegie Mellon observes the semester system with two six-week summer sessions. Courses may be taught in other shortened sessions.

Course Numbers

Each Carnegie Mellon University course number begins with a two-digit prefix which designates the department offering the course (76-xxx courses are offered by the Department of English, etc.) Although each department maintains its own course numbering practices, typically the first digit after the prefix indicates the class level: xx-1xx courses are freshmen-level, xx-2xx courses are sophomore level, etc. xx-6xx courses may be either undergraduate senior-level or graduate-level, depending on the department. Xx-7xx courses and higher are graduate-level.

Degree Requirements

Degrees are awarded upon satisfactory completion of residence requirements, all requirements in the approved curriculum(a) and by recommendation for degree(s) by the faculty of the appropriate college(s).

Units of Work vs. Credit Hours

Three units equal one semester hour of credit.

Quality Point Average (QPA) Calculations
Carnegie Mellon University defines a quality point as a point value times units for a given course. QPAs are calculated according to the following formula

Semester QPA: quality points divided by factorable units

Cumulative QPA: total quality points divided by total factorable units.

Undergraduate courses may not be factorable into the QPA for graduate students, depending on the student's college.

Units Carried vs. Passed vs. Factored

Units Carried refers to the total number of units for which the student is registered.

Units Passed is the total of all units that have a passing grade. Grades of 'R', 'N', and 'I' are not

Units Factored is the total of all units factored into QPA. See Grading Standards for grades not factorable into QPA. Undergraduate courses are not factorable into QPA for graduate students.

A separate cumulative QPA is calculated for undergraduate and graduate records. If a student attends for a combination of undergraduate, graduate studies, and/or non-degree studies, a cumulative QPA may not be calculated.

Cumulative QPA may not be available on transcripts for semesters prior to 1989.

4.0 Grading Standards

Undergraduate students (and graduate students in CFA, CIT, CMU, MCS, and SCS who entered before Fall 1995):

Grade	Point Value	Description
A	4.0	Excellent
В	3.0	Good
C	2.0	Satisfactory
D	1.0	Passing
R	0.0	Failure
X	0.0	Conditional Failure
S	non-factorable	Satisfactory
P	non-factorable	Passing
N	non-factorable	Failure in Pass/Fail Course
0	non-factorable	Audit
W	non-factorable	Withdrawal
1	non-factorable	Incomplete
AD	non-factorable	Credit by examination
TR	non-factorable	Transfer credit

4+ Grading Standards / 9.0 Grading Standards

The 4+ grading scale is applicable to graduate students who entered in and after Fall 1995. The 9.0 grading scale is applicable only to certain graduate students who entered before Fall 1995: Students in the Graduate School of Industrial Administration (GSIA, now Tepper School of Business (TSB)), the School of Urban and Public Affairs (SUPA, now Heinz College (HC)), and graduate students who were admitted to the College of Humanities and Social Sciences (H&SS, now Dietrich College (DC)) after August 1986.

Grade	Point Value (4+)	Point Value (9.0)	Description
A+ *	4.33	9	
Α	4.00	8	
A-	3.66	7	
B+	3.33	6	
В	3.00	5	
B-	2.67	4	
C+	2.33	3	
С	2.00	2	
C-	1.67	1	
D+ *	1.33	-	
D *	1.0	0	
R	0.0	0	Failure
X	0.0	-	Conditional Failure
S	non-factorable	non-factorable	Satisfactory
P	non-factorable	non-factorable	Passing
N	non-factorable	-	Failure in Pass/Fail Course
0	non-factorable	-	Audit
W	non-factorable	-	Withdrawal
1	non-factorable	-	Incomplete
AD	non-factorable	-	Credit by examination
TR	non-factorable	-	Transfer credit

* DC and CIT graduate students are not permitted to receive an A+. TSB and HC graduate students do not receive D or D+ grades.

After the mid-point of the spring 2020 semester, a global pandemic caused a significant disruption that warranted temporary changes to our grading policy. These changes offered broader use of our Pass/No Pass (P/NP) grading option and the acceptance of passing grades to fulfill degree requirements.

Grading Scale & QPA Conversion

We are unable to provide conversion to other grading scales, such as percentage. A guide to our grading scale is provided on the back of all official transcripts. While we do provide overall semester QPA and cumulative QPA, we are unable to provide an "in-major" QPA (i.e. QPA for courses only in your major).

Physical Education Courses

Physical Education Courses are considered Units Passed in the student's overall semester and cumulative QPA; they are not considered Units Factorable and are not used in calculating the student's overall semester QPA, rank in class or for academic actions.

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