Duke University

Official Transcript

Name: Leaf C Kalikow Student ID: 2438789 Print Date: 01/10/2023

LIKETI	VIV/EE	SITY • DI IKE I INIMER	RITY .	DUKETI	Term GPA	4.000	Term Earned	1.000	11/00/91//
		Degrees Awarded					2020 Foll Towns		
Degree:		Bachelor of Science in Engineering			Course		2020 Fall Term Description	Earned	Grade
Confer Date:		05/08/2022			MATH	390	SPECIAL TOPICS IN MATH	1.000	A+
Plan:		Mechanical Engineering (BSE)			Topic:		SPORTS ANALYTICS		/ERSITY
Plan:	10111	Mathematics - Minor			ME	321L	ME ANALYSIS FOR DESIGN	1.000	A+
Degree Hono Degree Hono		Cum Laude Graduation With Distinction In Med	b Ear & Mtr		ME	336L	FLUID MECHANICS	1.000	A+
Degree Hono	15	Graduation with distinction in wet	ii Eyi & iviii	301	ME Topic:	391	PROJECTS H2O CONDENSER DESIGN ANALYSIS	1.000	CANE UN
					ME - S	461	ENERGY ENG AND ENVIRONMENT	1.000	LANIN/ER
		Academic Program			Term GPA	4.000	Term Earned	5.000	6.0091 V LI 1
Program:		aduate Engineering	Status: Co	ompleted Program					/ • DHK
Plan: Plan:		cal Engineering (BSE)			PORL		2021 Spring Term		
Fian.	Walliettie	ALCS - WILLOW KE LIN IN /ERRITY			Course MATH		Description MATHEMATICAL MODELING	Earned	Grade
		Beginning of Undergraduate Record			ME	577 536	COMPRESSIBLE FLUID FLOW	1.000 1.000	A+
		JIVEŘSÍTY • ĎLIKE LINI			KME IN IN	571	AERODYNAMICS	1.000	IAKELIN
		2018 Fall Term			PUBPOL	235	RISK DOTTE OTTO	1.000	A+ _
Course		Page interest of the second of	Earned	Grade	Term GPA	4.000	Term Earned	4.000	1419691\/FD
Course CHEM	21	Description GENERAL CHEMISTRY CREDIT	<u>Earned</u> 1.000	AP			JUNE ONIVERSIT		OINIVLIN
ECON	22	INTRODUCTORY	1.000	AP	Course		2021 Fall Term Description	Earned	Grade
		MACROECONOMICS			COMPSCI	590	ADVANCED TOPICS IN CPS	1.000	A
ECON	21 ₋	INTRODUCTORY	1.000	AP	Topic:		TOPICS IN MOBILE APPLICATIONS		ËDQITV
HISTORY	22	MICROECONOMICS	1.000	AP	EGRMGMT	540	MGMNT HIGH TECH INDUSTRIES	1.000	LAHOHI
HISTORY	23 24	AMERICAN HISTORY, I AMERICAN HISTORY, II	1.000	AP	ME	421L	MECHANICAL DESIGN	1.000	A-L
MATH	21	INTRODUCTORY CALCULUS I	1.000	AP	ME Tarm CDA	431L	HEAT AND MASS TRANSFER	1.000	AKEUN
MATH	22	INTRODUCTORY CALCULUS II	1.000	AP	Term GPA	3.925	Term Earned	4.000	4.000 1 IN II\ / []
PHYSICS	25	INTRODUCTORY PHYSICS I	1.000	AP	Fall Dean's	s List			OINIVED
SPANISH	204 30	ADV INTERMEDIATE SPANISH	1.000	AP AP			2022 Spring Term		/ . DE 11/1
STA	30	STATS AND QUANTITATIV LITERACY	1.000	AP	Course	7 . 3	Description	Earned	<u>Grade</u>
		Transfer Tøtals: /	10.000//		EGRMGMT	512	PRODUCT MGMT IN HIGH-TECH	1.000	
. UNIVER		DUKE UNIVE	: 116		ME	424L	COMP MECHANICAL SYSTEMS DES	1.000	AMOLLY
Course	ZEOL IN	<u>Description</u>	Earned	<u>Grade</u>	ME	499	UNDERGRAD RESEARCH SEMINAR	0.000	
BIOLOGY EOS	158 102	PLANTS AND HUMAN USE THE DYNAMIC OCEANS	1.000 1.000	B+ A	ME	592	RESEARCH IND ST IN MECH ENG	1.000	WAKE UN
MATH	212	MULTIVARIABLE CALCULUS	1.000	A	Topic:	1941	AERO OF ARC WING		
WRITING	101	ACADEMIC WRITING	1.000	A	PHYSEDU	131	BEGINNING GOLF	0.500	SIVER
Topic:		SPEAK OF THE DEVIL			Term GPA	4.000	Term Earned	3.500	3.000
Term GPA	3.750	Term Earned	14.000		Undergraduat	e Career E	arned DUKE UNIV		r • DUK!
		2010 Carriag Tarra	W. Pr		Cum GPA:	3.832	Cum Earned	47.500	/ -37. 989\
Course		2019 Spring Term Description	Earned	Grade			End of Official Transcript		ERSHY
EGR	101L	ENGR DESIGN & COMMUNICATION	1.000	A	May I to	//: *			
EGR	103L	COMP METH IN ENGINEERING (LEC)	1.000	A-					UNE UN
MATH	221	LINEAR ALGEBRA & APPLICA	1.000	B-	THE OWN				
MATH MATH	230 240	PROBABILITY INTRO APPLIED MATH	1.000 1.000	A B+	SEE	1			UNIVER
Term GPA	3.540	Term Earned	5.000	5.000	7				
HSII Y		E ONIVERSITY • DO	0.000						r • DUK!
		2019 Fall Term							/EDGITY
Course	7011 <u>Y</u>	Description	Earned	Grade					EHOII Y
EGR	121L	ENGINEERING INNOVATION	1.000	A+					
EGR MATH	201L 305S	MECHANICS OF SOLIDS NUMBER THEORY	1.000 1.000	A A-					UKEUN
MATH	356	ELEM DIFFERENTIAL EQUAT	1.000	B-					
PHYSICS	152L	INTRO ELECTRIC, MAGNET, OPTICS	1.000	BUKE U					<u>UNIVER</u>
Term GPA	3.480	Term Earned	5.000						/ . DLIIZ
		E UNIVERSI <u>I</u> Y • DUKE							r • DUK
Course		2020 Spring Term	Forned	(Crade /					
Course EGR	224L	Description ELEC FUND OF MECHATRONICS	1.000	Grade A+					EKSII Y
EGR	244L	DYNAMICS	1.000	A					THE LIK
ME	221L	STRUC/PROP OF SOLIDS	1.000	SALY • DU					UKE UN
ME Town ODA	331L	THERMODYNAMICS	1.000	A					
Term GPA	4.000	Term Earned	4.000						<u>UNIVER</u>
		2020 Summer Torm 1							
Course		2020 Summer Term 1 Description	Earned	Grade					7 • DUK:
PHIL	150	LOGIC	1.000	A+					
PUBPOL	275	US ENVIRONMENTAL POL	1.000	A UNIVE					ERSILY
Term GPA	4.000	Term Earned	2.000						
		NVERSILY • DUKE UN							UKE UN
Course		2020 Summer Term 2	Earnad	Grado					
Course ME	344L	Description CONTROL SYSTEMS	<u>Earned</u> 1.000	Grade A+					UNIVER
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Leaf Kalikow



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Official Transcript

Name: Leaf C Kalikow Student ID: 2438789 Print Date: 01/10/2023

C	egree: onfer Date: Plan:		Master of Engineering 12/30/2022 Master of Engineering in Mechanica	al Engineer	VERSITY ing= UNIVE
	rogram:		Academic Program Engineering Engineering in Mechanical Engineering	Status: Co	ompleted Program
		DUK!	Beginning of Engineering Professional Recor	d	
			2022 Summer Term 1		
Tr	ransfer Cred	it from PRATI	SCHOOL OF BUSINESS TOWARD		
	<u>ourse</u>		Description	<u>Earned</u>	<u>Grade</u>
	GRMGMT	540	MGMNT HIGH TECH INDUSTRIES	3.000	TR
E	GRMGMT	512	PRODUCT MGMT IN HIGH-TECH COMP	3.000	TR
М	ATH	577	MATHEMATICAL MODELING	3.000	TR) K-
M	E	536	COMPRESSIBLE FLUID FLOW	3.000	TR
M	$E \top \vee$.	571	AERODYNAMICS	3.000	TR
M	E	592	RESEARCH IND ST IN MECH ENG	3.000	TR
			Transfer Earned	18.000	140
C	<u>ourse</u>		Description	Earned	Grade

Degrees Awarded

Description
MENG INTERNSHIP PROJECT
CONTINUING - MEMS Course MENG 550 Topic MENG MENG INTERNSHIP/PROJ ASSESSMNT 551 CONTINUING - MEMS Term GPA 0.000 Term Earned

2022 Fall Term Course EGRMGMT Description
PROJECT MANAGEMENT 560 ADV TOPICS IN ENG MGMT MANAGING PRODUCT DESIGN RESEARCH IND ST IN MECH ENG **EGRMGMT** 590 Topic: ME 591 MENG 570 **BUSINESS FUNDAMENTALS FOR** ENG Term Earned Term GPA 4.000

Engineering Professional Career Earned Cum GPA: 4.000

THE NAME OF THE UNIVERSITY APPEARS IN WHITE ACROSS THE FACE OF THIS 8 1/2 X 11 DOCUMENT

End of Official Transcript

0.000 CR 18.000 Grade Earned 3.000 A 3.000 Α 3.000 A A 3.000 12.000 30.000

CR

0.000

Leaf Kalikow



DUKE UNIVERSITY TRANSCRIPT GUIDE

CREDIT, ALL SCHOOLS: The Graduate and Professional Schools, except for the Divinity School, list credit in semester hours. Prior to 1969, credit for Trinity College of Arts & Sciences, the Pratt School of Engineering, and the Divinity School was recorded in semester hours. A semester-hour unit represents one lecture or recitation period of 50 minutes per week for a fifteen-week semester or its equivalent. Beginning Fall 1969, credit for Trinity, Pratt, and the Divinity School has been listed in semester-courses.

NOTE: One semester-course credit unit is equivalent to four semester hours.

UNDERGRADUATE LOAD AND COURSE NUMBERING SYSTEM: Since 1969, the normal undergraduate load has been four semester-course credits per semester. Full-trime status requires three or more semester-course credits. For undergraduate matriculants from Fall 1969-Summer 1988, the graduation requirement was 32 semester-course credits; for matriculants in Fall 1988 and after, it is 34. From 1930-2012, introductory-level courses are numbered below 100; advanced-level courses are numbered 100 and above. Courses numbered 1-49 were primarily for first-year students; courses numbered 200-299 were primarily for seniors and graduate students. Effective Fall 2012, undergraduate (Trinity and Pratt), Graduate School, Nicholas School of the Environment, Sanford School of Public Policy, Divinity School and Fuqua School of Business courses were renumbered. In the new numbering scheme, courses numbered at the 100 level and below are introductory courses; 200- and 300-level courses are above introductory; 400-level courses are advanced undergraduate, capstone-type courses typically taken by seniors; 500- and 600-level courses are graduate courses open to advanced undergraduates; courses numbered 700 and above are for graduate students only. A more detailed description of the course numbering scheme and process can be found at the following website: http://admin.trinity.duke.edu/course-renumbering.

DUKE KUNSHAN UNIVERSITY: Beginning Summer 2014 Duke University began offering graduate and professional degree programs and undergraduate semester programs at Duke Kunshan University, in Kunshan, China. Credits and degrees are awarded through Duke University and are displayed as such on Duke University transcripts, with a notation indicating the coursework was taken through Duke Kunshan University.

GRADING SYSTEMS

Spring 2020: COVID-19 required changes to enrollment patterns and grading.

UNDERGRADUATE

Trinity College of Arts & Sciences, Pratt School of Engineering, the School of Nursing, and the Woman's College:

						Quality Points
1967-	-present			1930-1	1955	per semester hour
A+	4.0	C+	2.3	A	Exceptional	3
Α	4.0	C	2.0	В	Superior	2
A-	3.7	C-	1.7	C	Satisfactory	1
B +	3.3	D +	1.3	D	Low Pass	0
В	3.0	D	1.0	F	Failure	
B-	2.7	D-	1.0	(1955-	1967, quality poi	nts per semester hour
		F	0.0	carried	one more point pe	er semester hour.)

In 1972, Trinity College and the Woman's College merged into the coeducational Trinity College of Arts & Sciences.

GRADUATE AND PROFESSIONAL

The Graduate School, Pratt School of Engineering, Nicholas School of the Environment, and Sanford School of Public Policy:

Sumi	mer 2004	-present	resent		ough Spring 2004
A+	4.0	B-	2.7	E	Excellent
A	4.0	C+	2.3	G	Good
A-	3.7	C	2.0	S	Satisfactory
B+	3.3	C-	1.7	F	Failure
В	3.0	F	0.0	P	Passing (Pass/Fail Course)

From Fall 1967, plus and minus signs have been possible. Through Spring 2004, the undergraduate grading system applies when a graduate student takes a course at the 100 level. All students admitted to The Graduate School, the Engineering Management program, and Sanford School of Public Policy in Summer 2004 and later will have a grade point average calculated, based on the scale noted above. No GPA is calculated for students admitted to those schools prior to Summer 2004. The Nicholas School of the Environment does not calculate a GPA.

The Fuqua School of Business:

Sept.	1980-pr	esent	Sept.	1977-Sept. 1980
SP	4.0	Superior	A	Excellent
HP	3.5	High Pass	В	Superior
P	3.0	Pass	C	Average
LP	2.5	Low Pass	D	Low Pass
F	0.0	Failure	F	Failure

Prior to September 1977, the School of Business Administration used the same grading system as the Graduate School.

The Divinity School:

 $\frac{\text{Fall 1971-present:}}{\text{undergraduate schools.}}$ the Divinity School has employed the same grading scale as the undergraduate schools.

1951-Fall 1971		Before 1951		
A	Excellent	E	95-100	
В	Superior	G	85-94	
C	Average	S	70-84	
D	Inferior	F	69 & below	
F	Failure			

The School of Nursing:

Spring	1993-	present	
A	4.0	C+	2.3
A-	3.7	C	2.0
B+	3.3	C-	1.7
В	3.0	F	0.0
B-	27		

From 1974-1992, plus and minus signs were not used.

The Law School:

raii 2015-	present			
4.1-4.3	Exceptional (<= 5% of any course with 40 or more students)			
2.0-4.0	Passing in ascending order of proficiency			
1.5	Failing			
Fall 2004-	2013 Fall 1989-2004			

4.1-4.3	4.1-4.5	Exceptional (<= 5% of any course with 40 or more students)
1.6-4.0	1.6-4.0	Passing in ascending order of proficiency
1.1-1.5	1.1-1.5	Failing
Fall 1971-Fall 19	189	
25/0 **	* *	

Fall 1971	-Fall 19	989
3.5-4.0	Н	Honors
2.7-3.4	HP	High Pass
1.8-2.6	P	Pass
1.3-1.7	LP	Low Pass
1.0-1.2	F	Failure

OTHER SYMBOLS (all schools):

_	Completed
*	No Credit
AD	Audited
AP	Advanced Placement Program Credit
CR	Credit Only
I	Incomplete
IPC	International Placement Credit
N	No grade reported at this time from instructor
NC	No Credit
P	Pass - in Pass/Fail course (after 1966)
S	Satisfactory - in Satisfactory/Unsatisfactory course (for
	undergraduates beginning Fall 2010)
TR	Transfer Credit
U	Failure - in Pass/Fail course (after 1966);
	Unsatisfactory - in Satisfactory/Unsatisfactory course
	(for undergraduates beginning Fall 2010)
W	Withdrew from course
WA	Withdrew from an Audited course
WE	Withdrew, Student Registration Error
WF	Withdrew, Failing (after 1974)
WI	Withdrew, Illness
WP	Withdrew, Passing (after 1974)
X	Absent from Examination (with excuse)
Z	Year-long course, grade given next semester

ACCREDITATION: Duke University is accredited by the Southern Association of Colleges and Schools, Atlanta, GA 30365.

Office of the University Registrar 1121 West Main Street, Suite 1200 Durham, NC 27701 (919) 684-2813 registrar@duke.edu

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