

YALE UNIVERSITY

Student No: 920549090

Date Issued: 30-MAY-2024

Record of: Barkotel Fesseha Zemenu  
 Issued To: Barkotel Zemenu  
 Parchment DocumentID: TEOF9B5G

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College : Yale College GH 24  
 Major : Physics (Int.)

Events: Distinction in Major 1  
 SUMMA CUM LAUDE  
 Phi Beta Kappa Senior Year

Degree(s) Awarded :  
 Bachelor of Science 20-MAY-2024

SUBJ NO.	COURSE TITLE	CRED	GRD	SUBJ NO.	COURSE TITLE	CRED	GRD
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Fall 2020				Institution Information continued:			
ENGL 114	Beyond Anthropocentrism	1.00	A-	MATH 470	Individual Studies	1.00	P
MATH 120	Calc:FunctionsSeveralVariables	1.00	A	PHYS 472	IndependentProjectsInPhysics	1.00	A
PHYS 180	University Physics	1.00	A	PHYS 512	Statistical Physics I	1.00	A
PSYC 141	The Criminal Mind	1.00	A	PHYS 678	ComputingforScientificResearch	1.00	A
Spring 2021				Fall 2023			
HIST 072	The History of World History	1.00	A	CHNS 110	Elementary Modern Chinese I	1.50	A
MATH 222	LinearAlgebraWithApplications	1.00	A	HEBR 150	AdvModernHebrew:IsraeliSociety	1.00	A
PHIL 115	First-Order Logic	1.00	A	HEBR 169	In Dialogue: Hebrew & Arabic	1.00	A
PHYS 181	University Physics	1.00	A	PHYS 471	IndependentProjectsInPhysics	1.00	A
Summer 2021				Spring 2024			
Yale Summer Programs				CHNS 120	Elementary Modern Chinese II	1.50	A
ASTR S110E	Planets and Stars	1.00	A	GREK 125	Intensive Beginning Greek	2.00	A
IDRS S300	Independent Research	1.00	P	PHYS 382L	Advanced Physics Laboratory	1.00	A
Fall 2021				PHYS 472	IndependentProjectsInPhysics	1.00	A
ENAS 194	Ordinary&PrtlalDiffrentlEquatns	1.00	A	*****UNDERGRADUATE DEGREE GPA 3.99 *****			
HEBR 110	Elementary Modern Hebrew I	1.50	A	Cumulative GPA: 3.99			
PHYS 401	Advanced Classical Physics	1.00	A	***** END OF TRANSCRIPT *****			
S&DS 106	IntroStatistics: Data Analysis	1.00	A				
Spring 2022							
HEBR 120	Elementary Modern Hebrew II	1.50	A				
JDST 306	Israeli Narratives TR	1.00	A				
PHYS 205L	Modern Physical Measurement	0.50	A				
PHYS 430	Electromagnetic Fields& Optics	1.00	A				
PHYS 440	QuantumMechnics&NatrlnPhnomna I	1.00	A				
Fall 2022							
ANTH 401	Meaning and Materiality	1.00	A				
HEBR 130	Intermediate Modern Hebrew I	1.50	A				
PHYS 206	Modern Physical Measurement	0.50	A				
PHYS 441	QuantumMechnics&NatrlnPhnomnaII	1.00	A				
PHYS 471	IndependentProjectsInPhysics	1.00	A				
PHYS 524	Intro to Nuclear Physics	1.00	A				
Spring 2023							
HEBR 152	Academic Texts in Modrn Hebrew	1.00	A				
***** CONTINUED ON NEXT COLUMN *****							

Shonna Marshall

Shonna Marshall, University Registrar



# Yale University

OFFICE OF THE UNIVERSITY REGISTRAR • POST OFFICE BOX 208321 • NEW HAVEN, CONNECTICUT 06520-8321 • (203) 432-2330

Yale College is the undergraduate division of Yale University, and this document is a transcript of the student's undergraduate record at Yale. Yale University is accredited by the New England Association of Schools and Colleges. Federal law prohibits release of information from this transcript to a third party without the express written consent of the student.

## REQUIREMENTS FOR THE BACHELOR'S DEGREE

For the class of 1970 and subsequent classes, a student must successfully complete at least 36 semester courses or their equivalent in Yale College to qualify for the degree of Bachelor of Arts (B.A.) or Bachelor of Science (B.S.). Semester credit hours only appear on the transcript for the convenience of other institutions. The student must also fulfill the Distributional Requirements, including the Foreign Language Requirement (beginning with students entering in Fall 1983), and complete the requirements of a major program, including a departmental examination or its equivalent, such as a senior essay. Some programs offer an intensive major as well as a standard major. A student may normally complete no more than eight terms of enrollment in order to fulfill these requirements.

For the Class of 1969, at least 38 semester courses or their equivalent must have been satisfactorily completed for the Bachelor's degree in the standard major.

For the Classes of 1934 to 1968, at least 40 semester courses or their equivalent must have been satisfactorily completed for the Bachelor's degree in the standard major.

For the Classes of 1927 to 1933, at least 120 semester hours were required for graduation.

For the Classes of 1926 and prior classes, 60 year hours were required for graduation.

Students who enter Yale College with advanced preparation may be awarded credit in those subjects at the conclusion of the freshman year (college credit for students who entered prior to September 1975; acceleration credit for students who entered subsequently). Such credit may be counted toward the requirements for graduation if the student accelerates - that is, if the student concludes his or her studies in fewer than eight semesters.

A limited number of students enroll as Eli Whitney Students, usually completing degree requirements on a part-time basis over a period not exceeding seven years. Such enrollment may lead to the Bachelor of Arts or Bachelor of Science degree. Until 2004, the Eli Whitney Students program was called the Degree Special Students program and could alternatively lead to the Bachelor of Liberal Studies (B.L.S.) degree.

## SUMMER SESSION

From 1975 through 1978, Yale College offered a summer term, the equivalent of a regular fall or spring term. Students could participate in a summer term as regular enrollment if the term was intended to be one of eight terms of attendance, or as supplementary enrollment if the term was not to be one of the eight required terms. Part-time participation in a summer term was permitted under supplementary enrollment.

Yale Summer Programs (1979 to 2004) / Yale Summer Session (2005-present) is currently an independent division of Yale University. In both content and method, most summer courses are identical to courses offered in Yale College during the regular academic year. Summer courses are, however, smaller in size and are both more concentrated and intensive than courses offered during the regular fall and spring semesters. Summer courses are taught by regular faculty of Yale University, by visiting professors who receive temporary appointments at Yale, and by Yale graduate students. Summer courses are approved by the Yale College faculty for credit toward the bachelor's degree.

## NUMBERING OF COURSES

Beginning in 1977-78, undergraduate courses are numbered from 100 to 499. Course numbers do not necessarily correlate with course level. Courses taken in the Yale Graduate School of Arts and Sciences are numbered from 500 to 999. Courses offered through the various Yale professional schools are numbered according to the systems of those respective schools.

Before 1977-78, courses numbered from 10 to 19 were, in general, elementary or first-year courses. Second-year or intermediate courses were numbered from 20 to 29. Third-year and advanced courses were numbered from 30 to 99. Courses numbered 100 and above were offered through the Graduate School of Arts and Sciences.

Year-long courses may appear with identical abbreviated titles for the two terms in which the courses were taken. In some year-long courses, failure to complete the second term results in no credit for either term.

The following may also appear in combination with course numbers:

a	Fall term course	E	Online course
b	Spring term course	S	Yale Summer Session
C	Summer term course	J	Junior seminar
l or lb	Laboratory course		

## COURSE CREDIT EQUIVALENT

One (1) Yale College course credit equates to four (4) semester hours.

## COURSE TITLES AND DESCRIPTIONS

Full course titles and course descriptions are provided in the Yale College Programs of Study bulletin. Upon request to the Registrar, copies of relevant pages will be furnished at a cost of \$.50 per page.

## GRADING SYSTEMS

Yale calculates grade point averages for students enrolled in the Fall 2005 term and subsequent terms. Starred grades (\*) do not count toward GPA. Yale does not calculate class rank. The College currently operates on a semester system.

Fall 2014 through the present:

A, A-	Excellent	B+, B, B-	Good	C+, C, C-	Satisfactory	
D+, D, D-	Passing	P	Pass	F	Fail	
CR	Credit (see below*)					
W	Withdraw (without prejudice after midterm)				TR	Transfer Credit

Fall 2009 through Summer 2014:

A, A-	Excellent	B+, B, B-	Good	C+, C, C-	Satisfactory	
D+, D, D-	Passing	F	Fail	CR	Credit (see below*)	
W	Withdraw (without prejudice after midterm)				TR	Transfer Credit

Summer 1981 through Spring 2009:

A, A-	Excellent	B+, B, B-	Good	C+, C, C-	Satisfactory	
D+, D, D-	Passing	F	Fail	CR	Credit (see below*)	
W	Withdraw (without prejudice after midterm)					

Fall 1972 through Spring 1981:

A	Excellent	B	Very Good	C	Satisfactory	D	Passing	
F	Fail	CR	Credit (see below*)					
W	Withdraw (without prejudice after midterm)							

Fall 1967 through Spring 1972:

H	Honors	HP	High Pass	P	Pass	F	Fail	
INP	Incomplete	W	Withdraw (in good standing)					
WF	Withdraw (failing)							

Fall 1932 through Spring 1966:

A 100-point numerical grading system was used at Yale College during this period with the following demarcations:

90-100	A	80-89	B	70-79	C	60-69	D (passing)	50-59	F
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Prior to Fall 1932:

A 400-point numerical grading system was used at Yale College with the following equivalencies established between the 100-point and the 400-point scales:

400 = 100	375 = 95	350 = 90	325 = 85	300 = 80	275 = 75	250 = 70	
225 = 65	200 = 60	(passing)					

The following marks may appear on some transcripts:

ABP	Absent from final examination
ABX	Authorized postponement of a final examination
INC or TI	Authorized late submission of work
NM or #	No grade recorded
NS	Unsatisfactory completion of work to date
SAT	Satisfactory completion of work to date
UNC	Unauthorized late submission of work

Beginning with Fall 1976, the transcript shows all courses in which the student was enrolled at midterm.

From Fall 1972 through Summer 1976, the transcript was a record only of courses successfully completed.

The grades of A, A-, B+, B, B-, C+, C, C-, D+, D, D-, CR, TR, H, HP, and P equally contribute course credit toward graduation requirements.

\* From Fall 1975 through Spring 1993, students could elect a limited number of courses on the Credit/Fail option; passing grades were converted to CR.

\* Beginning with Fall 1993, only grades of C- and above in courses elected on the Credit/D/Fail option were converted to CR.

## OFFICIAL RECORD

A transcript without the signature of the University Registrar is to be considered only as a statement of the student's academic progress toward the degree and is not to be considered as an official document.