

DUAL MAJOR IN FINANCE AND COMPUTER SCIENCE

The dual major (Finance and Computer Science) is an innovative interdisciplinary combination of curriculum that will provide students with unique skills. As such, a graduate of this dual major will be able to apply computer science techniques to the finance field.

This dual major does not constitute a dual degree. Students will not be receiving two bachelor's degrees if they pursue this dual major. Students pursuing the Finance-Computer Science dual major must declare their degree selection as BA in Computer Science or BS in Finance.

Requirements

Curricula

	Courses	Credits
Magis Core	15	45
Business Core	11	33
Finance Major	6	18
Computer Science Major	12 (1-4 credits each)	32
Total	44	128

Note: The Computer Science major also requires six (6) credits in Math (part of the Magis Core) and nine (9) Computer Science elective credits, which are part of the Finance major.

Magis Core Curriculum for Finance and Computer Science Dual Major

15 courses, 45 credits

Beginning with the Class of 2023, all undergraduate students will be required to complete the newly designed *Magis* Core Curriculum. For students entering Fairfield prior to fall 2019, please reference the Catalog Archive. Students pursuing the Computer Science – Finance dual major will fulfill certain areas of the *Magis* Core by taking specified courses as outlined below. Please refer to the Curricula section of this catalog for full requirements and a detailed explanation of the Magis Core.

Tier I: Orientation

Code	Title	Credits
Mathematics		
MATH 1121	Calculus or higher calculus course based on placement	3
MATH 2217	Statistics or higher statistics course based on placement	3
Modern or Classical Language		
	Select one language course based on placement	3

Tier II: Exploration

Code	Title	Credits
Behavioral and Social Sciences		
ECON 1011	Introduction to Microeconomics	3
ECON 1012	Introduction to Macroeconomics	3

Business Core Requirements

11 courses; 33 credits

Code	Title	Credits
ACCT 1011	Introduction to Financial Accounting ¹	3
ACCT 1012	Introduction to Management Accounting ¹	3
AETH 2291	Business Ethics	3
BUSN 1101	Messaging and Persuasion: Effective Business Communication ¹	3
BUSN 3211	Legal Environment of Business	3
DATA 1101	Business Analytics	3
FNCE 2101	Introduction to Finance ²	3
INTL 2101	Introduction to International Business	3
MGMT 2101	Introduction to Management ²	3
MGMT 4300	Business Strategies in the Global Environment ³	3
MKTG 1101	Principles of Marketing ²	3
Total Credits		33

¹ These courses should be primarily taken in the first year.

² These courses should be primarily taken in the second year.

³ This course may not be taken until the senior year.

Finance Major Requirements

Code	Title	Credits
FNCE 3210	Principles of Investment	3
FNCE 3215	Financial Management	3
FNCE 4305	Financial Trading and Strategic Simulations	3
FNCE 4320	Financial Modeling (Satisfies a Computer Science Elective)	3
FNCE 4330	Case Studies in Finance (Satisfies a Computer Science Elective)	3
FNCE 4390	Seminar in Finance (Satisfies a Computer Science Elective)	3
Total Credits		18

Computer Science Major Requirements

Code	Title	Credits
Mathematics Requirements		
MATH 1121	Applied Calculus I	3
MATH 1122	Applied Calculus II	3
	or MATH 2217 Statistics I	
Computer Science Requirements		
CPSC 1101	Introduction to Computing (Satisfies Business Elective)	3
CPSC 1131	Fundamentals of Programming	3
CPSC 2304	Web Development	3
CPSC 2250L	Computer Science Sophomore Clinic	1
CPSC 2231 & 2231L	Programming Workshop and Programming Workshop Lab	4
CPSC 2232 & 2232L	Data Structures and Data Structures Lab	4
SWEG 3301	Software Engineering Methods	3
CPSC 3351L	Computer Science Junior Clinic I	1

SWEG 3302	Software Design Methods	3
CPSC 3352L	Computer Science Junior Clinic II	1
CPSC 3354	Theory of Programming Languages	3
Computer Science Electives		
CPSC/SWEG Computer Science Elective		3
Three required Computer Science Electives are met with these courses: ¹		
FNCE 4305 & FNCE 4320 & FNCE 4390	Financial Trading and Strategic Simulations and Financial Modeling and Seminar in Finance	
Total Credits		38

¹ The 9 credits for these courses are counting under Finance Major Requirement

Plan of Study

Suggested Course of Study

Course	Title	Credits
First Year		
Fall		
ACCT 1011	Introduction to Financial Accounting	3
ECON 1011	Introduction to Microeconomics	3
CPSC 1101	Introduction to Computing	3
MATH 1121	Applied Calculus I	3
	Modern or Classical Language course	3
	First Year Experience (FYE)	0
Credits		15
Spring		
ACCT 1012	Introduction to Management Accounting	3
BUSN 1101 or INTL 2101	Messaging and Persuasion: Effective Business Communication or Introduction to International Business	3
CPSC 1131	Fundamentals of Programming	3
ECON 1012	Introduction to Macroeconomics	3
ENGL 1001	Introduction to Rhetoric and Composition	3
MATH 2217	Statistics I	3
Credits		18
Second Year		
Fall		
CPSC 2231	Programming Workshop	3
CPSC 2231L	Programming Workshop Lab	1
CPSC 2250L	Computer Science Sophomore Clinic	1
CPSC 2304	Web Development	3
DATA 1101	Business Analytics	3
DATA 1101L	Excel Certification Lab	0
FNCE 2101	Introduction to Finance	3
PHIL 1101	Introduction to Philosophy	3
Credits		17

Spring		
BUSN 1101 or INTL 2101	Messaging and Persuasion: Effective Business Communication or Introduction to International Business	3
CPSC 2232	Data Structures	3
CPSC 2232L	Data Structures Lab	1
MGMT 2101	Introduction to Management	3
MKTG 1101	Principles of Marketing	3
RLST 1000-level		3
Credits		16

Third Year

Fall

AETH 2291	Business Ethics	3
BUSN 3211	Legal Environment of Business	3
CPSC 3351L	Computer Science Junior Clinic I	1
FNCE 3210	Principles of Investment	3
HIST 1100	Origins of the Modern World Since 1500	3
SWEG 3301	Software Engineering Methods	3
Credits		16

Spring

CPSC 3352L	Computer Science Junior Clinic II	1
FNCE 3215	Financial Management	3
SWEG 3302	Software Design Methods	3
CPSC/SWEG Elective		3
	Literature (Literature/Classics/Modern) course	3
	Visual/Performing Arts 1000-level	3
Credits		16

Fourth Year

Fall

CPSC 3354	Theory of Programming Languages	3
FNCE 4305	Financial Trading and Strategic Simulations	3
FNCE 4320	Financial Modeling	3
	First Natural Science course	3
	History/Philosophy/Religious Studies at 2000-level ¹	3
Credits		15

Spring

FNCE 4330	Case Studies in Finance	3
FNCE 4390	Seminar in Finance	3
MGMT 4300	Business Strategies in the Global Environment	3
	Second Natural Science course	3
	History/Philosophy/Religious Studies course at 2000-level ¹	3
Credits		15
Total Credits		128

¹ Must take two different disciplines