

Sample Course Sequences

Below are several sample course sequences that fulfill the CSB degree requirements. **They are only samples and nothing here is intended to suggest any implicit requirements.** It should be clear in particular that electives can easily be rearranged. All sample sequences assume a non-Physics science sequence; the first Physics course in the Physics sequence is 5 credits (4-credit course plus 1-credit lab).

None of these samples assume any AP credit. Generally, students with AP move courses in the sequence earlier to leave room for more electives in the junior and/or senior years.

Samples A and B are shown in two versions: Samples A1 and B1 assume MATH 021 in the fall of freshman year. Samples A2 and B2 assume that MATH 021 is replaced by the sequence of MATH 075 in the fall and MATH 076 in the spring with MATH 022 deferred until sophomore year.

Students contemplating the Lehigh in Prague Program during the summer following their sophomore year should complete ACCT 151 and 152, CSB 311, and CSE 241 (or 341) by the end of sophomore year. (See Samples B1 and B2). It is necessary to request an override to be allowed to take ACCT 152 concurrent with CSB 311.

Students not planning to go to Prague, or who plan to go in the summer following their junior year should take CSB 311 in the spring of junior year.

Students contemplating graduate study in computer science or employment at major computing software firms (e.g. Microsoft, Google, Oracle, IBM) should consider taking CSE 340 prior to senior year. (See Sample C).

Sample D shows how a student entering CSB as a sophomore from the engineering college could complete the CSB major in 4 years with overloads in senior year. The overloads can be avoided via AP credit, a summer course, or the Lehigh in Prague program. It is important that students considering a transfer into CSB contact Prof Hall or Korth prior to course registration.

Sample E shows how a student entering CSB as a sophomore from the College of Business and Economics could complete the CSB major in 4 years without overloads (but see note regarding Math). It is important that students considering a transfer into CSB contact Prof Hall or Korth prior to course registration.

Sample A1 (Math 021): Note: this is **not** compatible with participating in the Lehigh in Prague Program during the summer after sophomore year, though it is compatible with participation during the summer after junior year.

freshman year, first semester (18)

- BUS 001 Introduction to Business I (3)
- CSE 001 Breadth of Computing (2)
- CSE 002 Fundamentals of Programming (2)
- ECO 001 Principles of Economics (4)
- ENGL 001 Composition and Literature (3)
- MATH 021 Calculus I (4)
- CBE Excel Competency Exam (0)

freshman year, second semester (17)

- CSE 017 Programming and Data Structures (3)
- ECO 029 Money and Banking (3)
- ENGL 002 Composition and Literature II (3)
- MATH 022 Calculus II (4)
- Science Elective (4)

sophomore year, first semester (17)

- ACCT 151 Introduction to Financial Accounting (3)
- CSE 109 Systems Software (4)
- MATH 231 Probability & Statistics (3) **OR** ECO 045 Statistical Methods (3)
- MKT 111 Principles of Marketing (3)
- Science Elective (4)

sophomore year, second semester (16)

- ACCT 152 Introduction to Managerial Accounting (3)
- CSE 202 Computer Organization and Architecture (3)
- CSE 241 Database Systems and Applications (3) **OR** CSE 341 Database Systems, Algorithms, and Applications (3)
- CSE 261 Discrete Structures (3)
- Science Elective (4)

junior year, first semester (18)

- CSE 303 Operating System Design (3)
- CSE 216 Software Engineering (3)
- Fin 125 Business Finance (3)
- MATH 205 Linear Methods (3)
- SCM 186 Supply Chain Operations Management (3)
- SS elective (3)

junior year, second semester (18)

- CSB 311 Computer Applications in Business (3)
- CSB 312 Design of Integrated Business Applications I (3)
- CSE 252 Computers, the Internet, and Society (3)
- ECO 146 Applied Microeconomics (3)
- LAW 201 Legal Environment for Business (3)
- CSB professional elective (3)

senior year, first semester (16)

- CSB 313 Design of Integrated Business Applications II (3)
- CSE 340 Design and Analysis of Algorithms (3)
- CSE 262 Programming Languages (3)
- CSB professional elective (3)
- HU elective (4)

senior year, second semester (16+)

- MGT 301 Business Management Policies (3)
- CSE elective from list (3)
- CSB professional elective (3)
- HU elective (2)
- Free elective (5)
- *Note that most HU courses are 4 credits and the credits beyond the total of 6 needed contribute towards satisfying the free elective.*

Sample A2 (Math 075/076): Note: this is **not** compatible with participating in the Lehigh in Prague Program during the summer after sophomore year, though it is compatible with participation during the summer after junior year.

freshman year, first semester (16)

- BUS 001 Introduction to Business I (3)
- CSE 001 Breadth of Computing (2)
- CSE 002 Fundamentals of Programming (2)
- ECO 001 Principles of Economics (4)
- ENGL 001 Composition and Literature (3)
- MATH 075 Calculus I, Part A (2)
- CBE Excel Competency Exam (0)

freshman year, second semester (15)

- CSE 017 Programming and Data Structures (3)
- ECO 029 Money and Banking (3)
- ENGL 002 Composition and Literature II (3)
- MATH 076 Calculus I, Part B (2)
- Science Elective (4)

sophomore year, first semester (18)

- ACCT 151 Introduction to Financial Accounting (3)
- CSE 109 Systems Software (4)
- ECO 045 Statistical Methods (3)
- MATH 022 Calculus II (4)
- Science Elective (4)

sophomore year, second semester (17)

- ACCT 152 Introduction to Managerial Accounting (3)
- CSE 202 Computer Organization and Architecture (3)
- CSE 241 Database Systems and Applications (3)
- SS elective (4) (one credit is free elective)
- Science Elective (4)

junior year, first semester (18)

- CSE 303 Operating System Design (3)
- CSE 216 Software Engineering (3)
- Fin 125 Business Finance (3)
- MATH 205 Linear Methods (3)
- SCM 186 Supply Chain Operations Management (3)
- MKT 111 Principles of Marketing (3)

junior year, second semester (18)

- CSB 311 Computer Applications in Business (3)
- CSB 312 Design of Integrated Business Applications I (3)
- CSE 252 Computers, the Internet, and Society (3)
- ECO 146 Applied Microeconomics (3)
- LAW 201 Legal Environment for Business (3)
- CSE 261 Discrete Structures (3)

senior year, first semester (16)

- CSB 313 Design of Integrated Business Applications II (3)
- CSE 340 Design and Analysis of Algorithms (3)
- CSE 262 Programming Languages (3)
- CSB professional elective (3)
- HU elective (4)

senior year, second semester (18)

- MGT 301 Business Management Policies (3)
- CSE elective from list (3)
- CSB professional elective (3)
- CSB professional elective (3)
- HU elective (2)
- Free elective (4)
- *Note that most HU courses are 4 credits and the credits beyond the total of 6 needed contribute towards satisfying the free elective.*

Sample B1 (Math 021): Targeted towards students thinking about spending the summer after sophomore year in the Lehigh in Prague Program. Students not going to Prague need to fit CSE 252 and 3 professional elective credits into the regular semesters

freshman year, first semester (18)

- BUS 001 Introduction to Business I (3)
- CSE 001 Breadth of Computing (2)
- CSE 002 Fundamentals of Programming (2)
- ECO 001 Principles of Economics (4)
- ENGL 001 Composition and Literature (3)
- MATH 021 Calculus I (4)
- CBE Excel Competency Exam (0)

freshman year, second semester (17)

- CSE 017 Programming and Data Structures (3)
- ECO 029 Money and Banking (3)
- ENGL 002 Composition and Literature II (3)
- MATH 022 Calculus II (4)
- Science Elective (4)

sophomore year, first semester (17)

- ACCT 151 Introduction to Financial Accounting (3)
- CSE 109 Systems Software (4)
- MATH 231 Probability & Statistics (3) **OR** ECO 045 Statistical Methods (3)
- MKT 111 Principles of Marketing (3)
- Science Elective (4)

sophomore year, second semester (16)

- ACCT 152 Introduction to Managerial Accounting (3)
 - CSB 311 Computer Applications in Business (3) (prerequisite override needed)
 - CSE 241 Database Systems and Applications (3) **OR** CSE 341 Database Systems, Algorithms, and Applications (3)
 - CSE 261 Discrete Structures (3)
 - Science Elective (4)
-

summer semester between sophomore and junior years in Prague (6)

- CSB 314 International Practicum (3)
- CSE 252 Computers, the Internet, and Society (3)

junior year, first semester (18)

- CSE 216 Software Engineering (3)
- Fin 125 Business Finance (3)
- MATH 205 Linear Methods (3)
- SCM 186 Supply Chain Operations Management (3)
- CSE elective from list (3)
- SS elective (3)

junior year, second semester (15)

- CSB 312 Design of Integrated Business Applications I (3)
- CSE 202 Computer Organization and Architecture (3)
- ECO 146 Applied Microeconomics (3)
- LAW 201 Legal Environment for Business (3)
- CSB professional elective (3)

senior year, first semester (16)

- CSE 262 Programming Languages (3)
- CSE 340 Design and Analysis of Algorithms (3)
- CSB 313 Design of Integrated Business Applications II (3)
- CSE 303 Operating System Design (3)
- HU elective (4)

senior year, second semester (13+)

- CSB professional elective (3)
- MGT 301 Business Management Policies (3)
- HU elective (2)
- Free elective (5)
- *Note that most HU courses are 4 credits and the credits beyond the total of 6 needed contribute towards satisfying the free elective.*

Sample B2 (Math 075/076): Targeted towards students thinking about spending the summer after sophomore year in the Lehigh in Prague Program. Students not going to Prague need to fit CSE 252 and 3 professional elective credits into the regular semesters

freshman year, first semester (16)

- BUS 001 Introduction to Business I (3)
- CSE 001 Breadth of Computing (2)
- CSE 002 Fundamentals of Programming (2)
- ECO 001 Principles of Economics (4)
- ENGL 001 Composition and Literature (3)
- MATH 075 Calculus I, Part A (2)
- CBE Excel Competency Exam (0)

freshman year, second semester (15)

- CSE 017 Programming and Data Structures (3)
- ECO 029 Money and Banking (3)
- ENGL 002 Composition and Literature II (3)
- MATH 076 Calculus I, Part B (2)
- Science Elective (4)

sophomore year, first semester (18)

- ACCT 151 Introduction to Financial Accounting (3)
- CSE 109 Systems Software (4)
- ECO 045 Statistical Methods (3)
- MATH 022 Calculus II (4)
- Science Elective (4)

sophomore year, second semester (17)

- ACCT 152 Introduction to Managerial Accounting (3)
 - CSB 311 Computer Applications in Business (3) (prerequisite override needed)
 - CSE 241 Database Systems and Applications (3)
 - SS elective (4) (one credit is free elective)
 - Science Elective (4)
-

summer semester between sophomore and junior years in Prague (6)

- CSB 314 International Practicum (3)
- CSE 252 Computers, the Internet, and Society (3)

junior year, first semester (18)

- CSE 216 Software Engineering (3)
- Fin 125 Business Finance (3)
- MATH 205 Linear Methods (3)
- SCM 186 Supply Chain Operations Management (3)
- CSE elective from list (3)
- MKT 111 Principles of Marketing (3)

junior year, second semester (15)

- CSB 312 Design of Integrated Business Applications I (3)
- CSE 202 Computer Organization and Architecture (3)
- ECO 146 Applied Microeconomics (3)
- LAW 201 Legal Environment for Business (3)
- CSE 261 Discrete Structures (3)

senior year, first semester (16)

- CSE 262 Programming Languages (3)
- CSB 313 Design of Integrated Business Applications II (3)
- CSE 303 Operating System Design (3)
- CSE 340 Design and Analysis of Algorithms (3)
- HU elective (4)

senior year, second semester (15+)

- CSB professional elective (3)
- MGT 301 Business Management Policies (3)
- CSB professional elective (3)
- HU elective (2)
- Free elective (4)
- *Note that most HU courses are 4 credits and the credits beyond the total of 6 needed contribute towards satisfying the free elective.*

Sample C: Designed for students thinking of graduate study in Computer Science. This sample is compatible with the Lehigh in Prague Program, but assumes the student chooses not to do it. This sample includes some specific choices of course options and CSE electives that are recommended as preparation for graduate study.

freshman year, first semester (18)

- BUS 001 Introduction to Business I (3)
- CSE 001 Breadth of Computing (2)
- CSE 002 Fundamentals of Programming (2)
- ENGL 001 Composition and Literature (3)
- ECO 001 Principles of Economics (4)
- MATH 021 Calculus I (4)
- CBE Excel Competency Exam (0)

freshman year, second semester (17)

- CSE 017 Programming and Data Structures (3)
- ECO 029 Money and Banking (3)
- ENGL 002 Composition and Literature II (3)
- MATH 022 Calculus II (4)
- Science Elective (4)

sophomore year, first semester (17)

- ACCT 151 Introduction to Financial Accounting (3)
- CSE 109 Systems Software (4)
- MATH 205 Linear Methods (3)
- MATH 231 Probability & Statistics (3) (the ECO 45 alternative is not recommended for students targeting CS graduate study)
- Science Elective (4)

sophomore year, second semester (18)

- ACCT 152 Introduction to Managerial Accounting (3)
- SCM 186 Supply Chain Operations Management (3)
- CSE 202 Computer Organization and Architecture (3)
- CSE 261 Discrete Structures (3)
- CSE 271 Programming in the C and Unix Environment (3) (serves as a CSB professional elective)
- CSE 341 Database Systems, Algorithms, and Applications (3) (CSE 341 is a better choice for students targeting CS graduate study than CSE 241)

junior year, first semester (18)

- CSE 216 Software Engineering (3)
- CSE 303 Operating System Design (3)
- CSE 340 Design and Analysis of Algorithms (3)
- ECO 146 Applied Microeconomics (3)
- Fin 125 Business Finance (3)
- MKT 111 Principles of Marketing (3)

junior year, second semester (16)

- CSB 311 Computer Applications in Business (3)
- CSB 312 Design of Integrated Business Applications I (3)
- CSE 318 Automata and Formal Grammars (3) (serves as CSE elective from list)
- CSE 342 Fundamentals of Internetworking (4) (serves as CSB professional elective)
- LAW 201 Legal Environment for Business (3)

senior year, first semester (17)

- CSE 252 Computers, the Internet, and Society (3)
- CSB 313 Design of Integrated Business Applications II (3)
- CSE 262 Programming Languages (3)
- HU elective (4)
- Science Elective (4)

senior year, second semester (18)

- CSE 302 Compiler Design or CSE independent study (3) (serves as CSB professional elective)
- MGT 301 Business Management Policies (3)
- SS elective (3)
- HU elective (2)
- Free elective (1), but this is covered by any HU credits beyond the 2 listed above
- *Plus 2 other computer science courses. 400-level CSE courses not needed for an undergraduate program can be applied to a Lehigh graduate program via petition*

Sample D: Designed for students entering CSB after first-year in the Rossin College of Engineering and Applied Science. Ideally, students will take ECO 001 in freshman year. Students interested in Prague after sophomore year need CSB 311 in spring of sophomore year as an overload, or should wait until after junior year.

freshman year, first semester

RCEAS required courses (15-16):

- ENGL 001 Composition and Literature (3)
- MATH 021 Calculus I (4)
- ENGR 005 Introduction to Engineering Practice (2)
- ENGR 010 Applied Engineering Computer Methods (2) (or in spring term)
- CHM 030 (4) or PHY 011, 012 (5)

freshman year, second semester

RCEAS required courses (12-14):

- ENGL 002 Composition and Literature II (3)
- MATH 022 Calculus II (4)
- CHM 030 (4) or PHY 011, 012 (5)
- ENGR 010 Applied Engineering Computer Methods (2) (or in fall term)

CSB required courses (2):

- CSE 002 Fundamentals of Programming (2)
- CBE Excel Competency Exam (0)

sophomore year, first semester (17)

- ACCT 151 Introduction to Financial Accounting (3)
- CSE 017 Programming and Data Structures (3)
- ECO 001 Principles of Economics (4)
- ECO 029 Money and Banking (3)
- Science Elective (4) *must be PHY or CHM*

sophomore year, second semester (16)

- ACCT 152 Introduction to Managerial Accounting (3)
- MATH 231 Probability & Statistics (3) **OR** ECO 045 Statistical Methods (3)
- CSE 261 Discrete Structures (3)
- CSE 109 Systems Software (4)
- CSE 241 Database Systems and Applications (3) **OR** CSE 341 Database Systems, Algorithms, and Applications (3)

junior year, first semester (18)

- CSE 216 Software Engineering (3)
- CSE 262 Programming Languages (3)
- ECO 146 Applied Microeconomics (3)
- FIN 125 Business Finance (3)
- MATH 205 Linear Methods (3)
- MKT 111 Principles of Marketing (3)

junior year, second semester (18)

- CSB 311 Computer Applications in Business (3)
- CSB 312 Design of Integrated Business Applications I (3)
- CSE 202 Computer Organization and Architecture (3)
- CSE elective from list (3)
- LAW 201 Legal Environment for Business (3)
- SCM 186 Supply Chain Operations Management (3)

senior year, first semester (19)

- CSB 313 Design of Integrated Business Applications II (3)
- CSE 303 Operating System Design (3)
- CSE 340 Design and Analysis of Algorithms (3)
- CSE 252 Computers, the Internet, and Society (3)
- CSB professional elective (3)
- HU elective (4)

senior year, second semester (19)

- CSB professional elective (3)
- CSB professional elective (3)
- MGT 301 Business Management Policies (3)
- SS elective (3)
- HU elective (2) *Note that most HU courses are 4 credits and the credits beyond the total of 6 needed contribute towards satisfying the free elective.*
- Free elective (5)

Sample E: Designed for students entering CSB after first semester in the College of Business and Economics, assuming a typical first-year set of courses. This sample is not compatible with the Lehigh in Prague Program until after junior year.

freshman year, typical CBE first semester (17)

- BUS 001 Introduction to Business I (3)
- ECO 001 Principles of Economics (4)
- ENGL 001 Comp. and Lit. I (3)
- MATH 081 Calculus I (4)
- Elective (3)
- CBE Excel Competency Exam (0)

freshman year, preparing to transfer after second semester (16)

- ECO 029 Money and Banking (3)
- ENGL 002 Comp. and Lit. II (3)
- BUS 005 Value Based Decision Making for Business (1)
- MATH 022 by petition or MATH 021 (4)¹

CSB required courses (5):

- CSE 002 Fundamentals of Programming (2)
- CSE 012 Survey of Computer Science (3)

sophomore year, first semester (17)

- ACCT 151 Introduction to Financial Accounting (3)
- ECO 045 Statistical Methods (3)
- CSE 017 Prog. and Data Structures (3)
- HU or SS elective (4)
- Science elective (4)

sophomore year, second semester (18)

- ACCT 152 Introduction to Managerial Accounting (3)
- CSE 241 Database Systems and Applications (3) **OR** CSE 341 Database Systems, Algorithms, and Applications (3)
- MATH 205 Linear Methods (3)
- CSE 261 Discrete Structures (3)
- SCM 186 Supply Chain Operations Management (3)
- MKT 111 Principles of Marketing (3)

¹ CSB requires MATH 021 rather than MATH 081. However, if you earned at least a B in MATH 081 you may request permission from the Math Department to go directly into MATH 022. If the Math Department grants that permission, and you complete MATH 022 with at least a C-, the CSB program will accept your MATH 081 course in place of MATH 021. The sample sequence assumes you get permission to go directly into MATH 022. Without that permission, unless you have AP credits, you will need to overload at least one semester or get course credits during the summer.

junior year, first semester (17)

- CSE 109 Systems Software (4)
- CSE 262 Programming Languages (3)
- Science Elective (4)
- CSE 340 Design and Analysis of Algorithms (3)
- ECO 146 Applied Microeconomics (3)

junior year, second semester (18)

- CSB 311 Computer Applications in Business (3)
- CSB 312 Design of Integrated Business Applications I (3)
- CSE 202 Computer Organization and Architecture (3)
- LAW 201 Legal Environment for Business (3)
- Fin 125 Business Finance (3)
- CSE 252 Computers, the Internet, and Society (3)

senior year, first semester (17)

- CSB 313 Design of Integrated Business Applications II (3)
- CSE 216 Software Engineering (3)
- CSE 303 Operating System Design (3)
- Science elective (4)
- HU or SS elective (4) (depending on what was taken earlier)

senior year, second semester (17)

- MGT 301 Business Management Policies (3)
- CSE elective from list (3)
- CSB professional elective (3)
- CSB professional elective (3)
- CSB Professional Elective (3)
- HU elective (2)²

² Note that most HU courses are 4 credits and the credits beyond the total of 6 needed contribute towards satisfying the free elective.