2026 – 2027 Computer Engineering Course Flow Chart
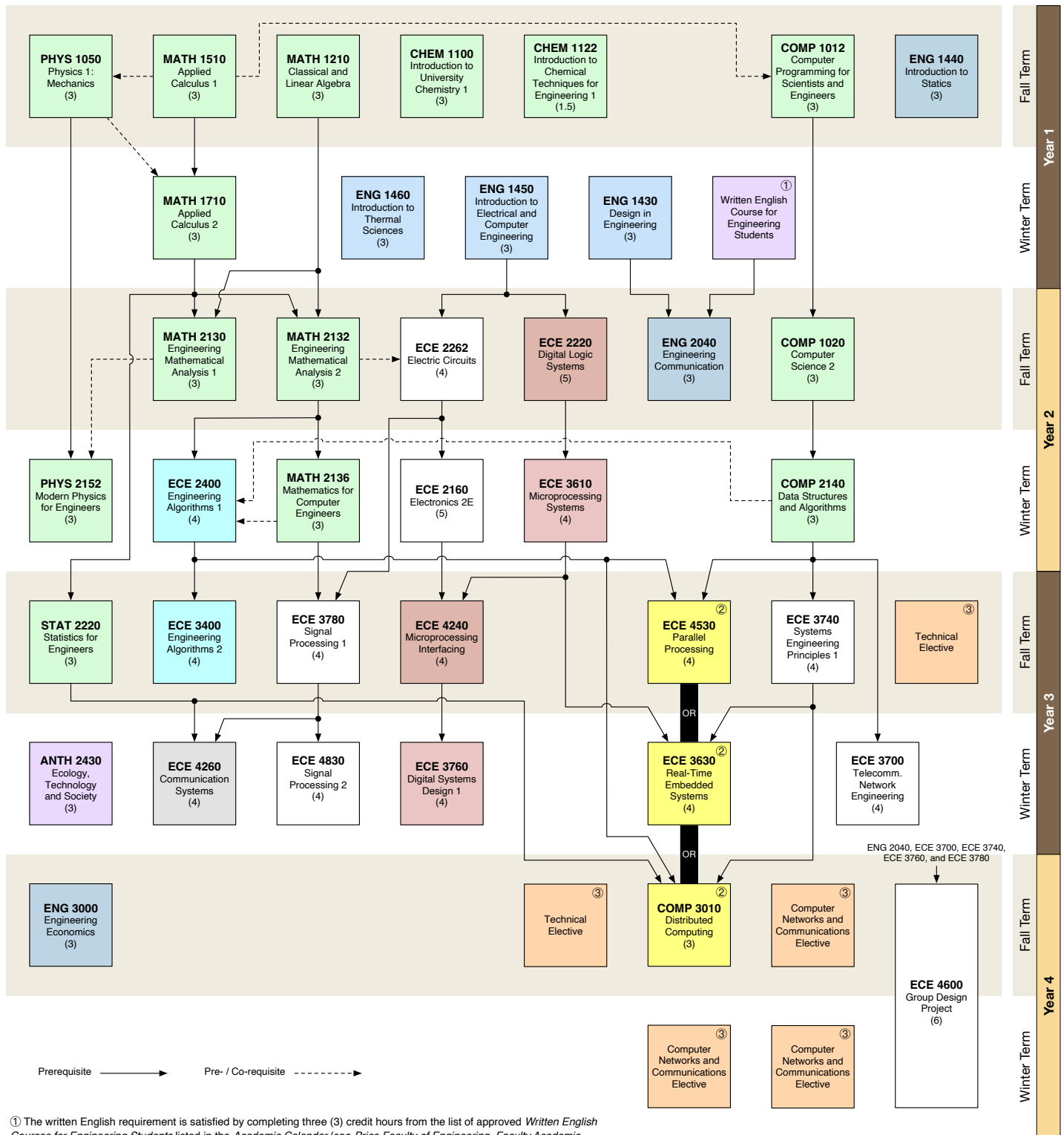## Computer Networks and Communications Focus Area – Model 4 Year Program

Year 1 — Fall Term

- **PHYS 1050** Physics 1: Mechanics (3)
- **MATH 1510** Applied Calculus 1 (3)
- **MATH 1210** Classical and Linear Algebra (3)
- **CHEM 1100** Introduction to University Chemistry 1 (3)
- **CHEM 1122** Introduction to Chemical Techniques for Engineering 1 (1.5)
- **COMP 1012** Computer Programming for Scientists and Engineers (3)
- **ENG 1440** Introduction to Statics (3)

Year 1 — Winter Term

- **MATH 1710** Applied Calculus 2 (3)
- **ENG 1460** Introduction to Thermal Sciences (3)
- **ENG 1450** Introduction to Electrical and Computer Engineering (3)
- **ENG 1430** Design in Engineering (3)
- ① Written English Course for Engineering Students

Year 2 — Fall Term

- **MATH 2130** Engineering Mathematical Analysis 1 (3)
- **MATH 2132** Engineering Mathematical Analysis 2 (3)
- **ECE 2262** Electric Circuits (4)
- **ECE 2220** Digital Logic Systems (5)
- **ENG 2040** Engineering Communication (3)
- **COMP 1020** Computer Science 2 (3)

Year 2 — Winter Term

- **PHYS 2152** Modern Physics for Engineers (3)
- **ECE 2400** Engineering Algorithms 1 (4)
- **MATH 2136** Mathematics for Computer Engineers (3)
- **ECE 2160** Electronics 2E (5)
- **ECE 3610** Microprocessing Systems (4)
- **COMP 2140** Data Structures and Algorithms (3)

Year 3 — Fall Term

- **STAT 2220** Statistics for Engineers (3)
- **ECE 3400** Engineering Algorithms 2 (4)
- **ECE 3780** Signal Processing 1 (4)
- **ECE 4240** Microprocessing Interfacing (4)
- **ECE 4530** Parallel Processing (4) ②
- **ECE 3740** Systems Engineering Principles 1 (4)
- ③ Technical Elective

Year 3 — Winter Term

- **ANTH 2430** Ecology, Technology and Society (3)
- **ECE 4260** Communication Systems (4)
- **ECE 4830** Signal Processing 2 (4)
- **ECE 3760** Digital Systems Design 1 (4)
- **ECE 3630** Real-Time Embedded Systems (4) ②
- **ECE 3700** Telecomm. Network Engineering (4)

OR

Year 4 — Fall Term

- **ENG 3000** Engineering Economics (3)
- ③ Technical Elective
- **COMP 3010** Distributed Computing (3) ②
- ③ Computer Networks and Communications Elective

OR

ENG 2040, ECE 3700, ECE 3740, ECE 3760, and ECE 3780

- **ECE 4600** Group Design Project (6)

Year 4 — Winter Term

- ③ Computer Networks and Communications Elective
- ③ Computer Networks and Communications Elective
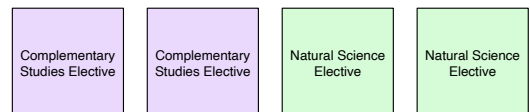

Prerequisite ⟶   Pre- / Co-requisite ⇢

① The written English requirement is satisfied by completing three (3) credit hours from the list of approved *Written English Courses for Engineering Students* listed in the *Academic Calendar* (see *Price Faculty of Engineering, Faculty Academic Regulations*).

② Students must take one of:
 – ECE 3630 Real-time Embedded Systems
 – COMP 3010 Distributed Computing
 – ECE 4530 Parallel Processing

③ Technical Electives:
 – Five (5) technical electives are required to complete the program. Three (3) form part of the Focus Area.
 – At most two (2) of these electives may be selected from the list of approved Electrical Engineering courses.
 – Technical electives may be taken at anytime, subject to prerequisites.

Additional required elective courses which may be completed in any term.

- Complementary Studies Elective
- Complementary Studies Elective
- Natural Science Elective
- Natural Science Elective

This flow chart is intended as a guide, and only applies for the current academic year. It should not be used as a guide for subsequent years. Errors may be present in this document. Students should refer to information in the *Academic Calendar*.

17 February 2026, v.1

Computer Engineering Focus Areas

Students wishing to pursue more focused studies in a Computer Engineering subject/research area have the choice of doing so through a recognized Focus Area. Courses taken towards a Focus Area take the place of some of the Technical Electives required in the Computer Engineering program.

COMPUTER NETWORKS AND COMMUNICATIONS FOCUS AREA

Requirements:
To complete the Computer Networks and Communications Focus the prescribed course must be taken. Three (3) of the seven Computer Networks and Communications Technical Elective courses must also be taken. To complete the program requirements, two (2) additional courses must be selected from the elective courses listed in the Computer Engineering Standard Program.

Prescribed Computer Networks and Communications Course (required)

ECE 4260 Communication Systems

Computer Networks and Communications Technical Elective Courses (3 required)

ECE 4250 Digital Communication
ECE 4520 Simulation and Modelling
ECE 4540 Wireless Networks
ECE 4870 Computer Communication Networks
COMP 3010 Distributed Computing
COMP 4580 Computer Security