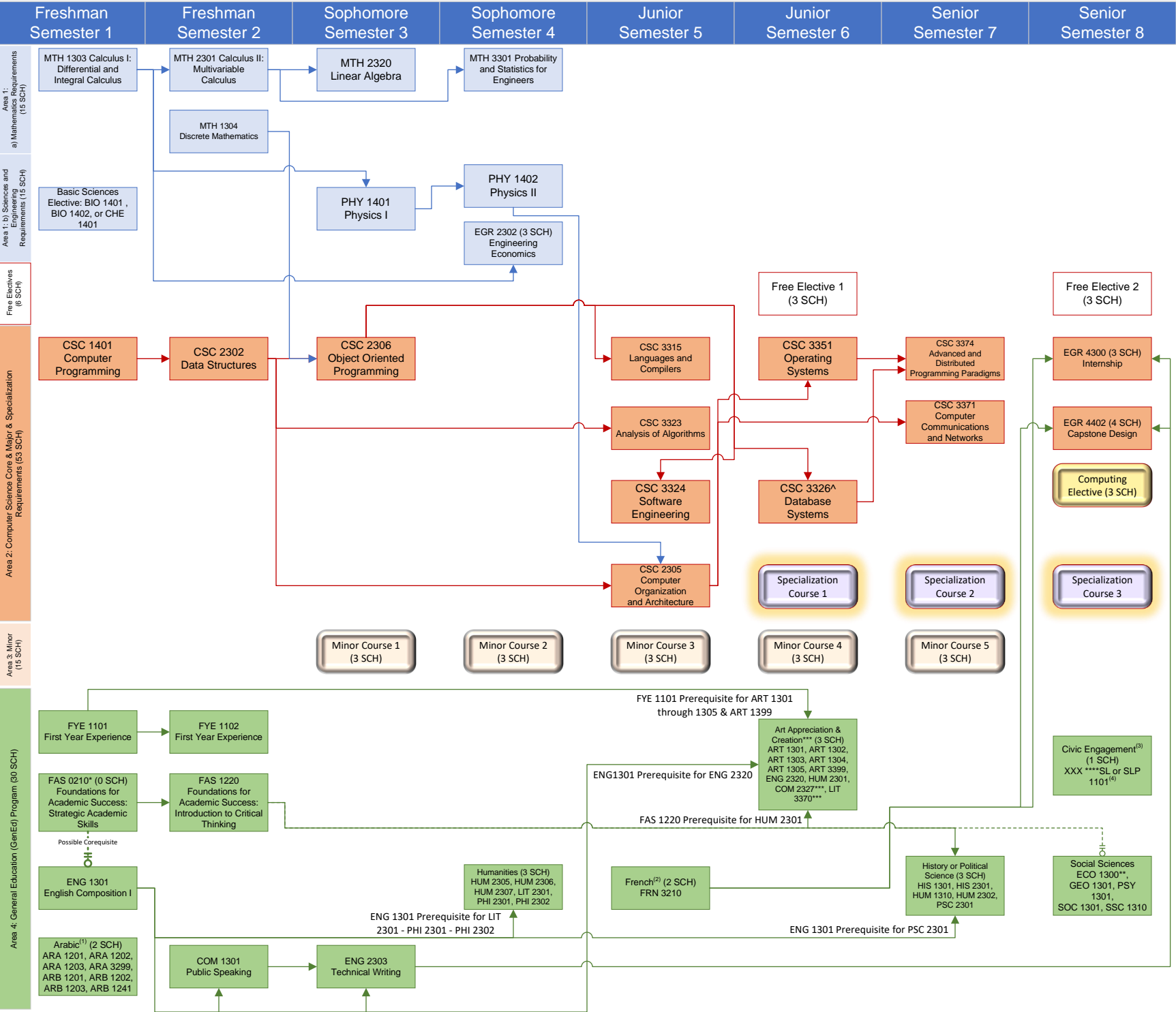


BSCSC Course Sequence (134 SCH) | Catalog 2023-2025 | B.S. in Computer Science (BSCSC)



BSCSC Tabular Sequence

Last updated on December 20, 2023

Areas

Area 1: Mathematics, Sciences and Engineering (30 SCH)

Free Elective (6 SCH)

Computer Science Core (41 SCH)

Computer Science Specialization (9 SCH)

Computing Elective (3 SCH)

Area 3: Minor (15 SCH)

Area 4: General Education (30 SCH)

Possible Computing Elective (3 SCH)

CSC 33xx/43xx
Computing courses at the 3000 or 4000 level

Computing Specializations (9 SCH)

Advanced Computer Science (ACS)

Artificial Intelligence (AI)

Big Data Analytics (BDA)

Computer Systems (CSys)

Software Engineering (SE)

Check page 2 for the list of courses

Arrow Key

- Prerequisite: The box from which a line originates indicates the pre-requisite for the destination box
- Corequisite: two courses could be taken together during the same semester

Note: Arranging for Summer Session(s) is recommended to readjust and mitigate the course load during regular semesters

BSCSC Specializations Courses

Advanced Computer Science (ACS) Specialization (9 SCH)

Required	Prerequisites
CSC 3309 Introduction to Artificial Intelligence	CSC 2306, CSC 3323, MTH 3301
CSC 4308 Cyber Security	CSC 3371, Junior classification
Electives (Choose 1)	
CSC 3328 Embedded Systems	CSC 3351
CSC 4399 Special Topics in Computer Science	depends on the topic

Artificial Intelligence (AI) Specialization (9 SCH)

Required	Prerequisites
CSC 3309 Introduction to Artificial Intelligence	CSC 2306, CSC 3323, MTH 3301
CSC 3347 Machine Learning and Data Mining	CSC 3308 or CSC 3309
Electives (Choose 1)	
CSC 3310 Artificial Neural Networks	CSC 3308 or CSC 3309
CSC 3311 Computer Vision	CSC 3308 or CSC 3309
CSC 3348 Natural Language Processing and Text Mining	CSC 3308 or CSC 3309

Big Data Analytics (BDA) Specialization (9 SCH)

Required	Prerequisites
CSC 3331 Introduction to Big Data Environment and Applications	CSC 3326
CSC 4352 Big Data Analytics	CSC 3331
Electives (Choose 1)	
CSC 3329 IoT & Big Data Streaming	CSC 3371
CSC 3346 Data Engineering and Visualization	CSC 3326
CSC 3349 Data Warehousing	CSC 3326
CSC 4351 Statistical Analysis	MTH 3301

Computer Systems (CSys) Specialization (9 SCH)

Required	Prerequisites
CSC 3373 Cloud Computing	CSC 3351 and CSC 3371
CSC 3328 Embedded Systems	CSC 3351
Electives (Choose 1)	
CSC 3329 IoT & Big Data Streaming	CSC 3371
CSC 3331 Introduction to Big Data Environment and Applications	CSC 3326
CSC 3376 Systems Programming	CSC 3351

Software Engineering (SE) Specialization (9 SCH)

Required	Prerequisites
CSC 4307 Agile Software Engineering and DevOps	CSC 3326, CSC 3351 and Junior classification
CSC 4309 Enterprise Cloud and Mobile Applications	CSC 3374
Electives (Choose 1)	
CSC 3357 Object-oriented Design	CSC 2306 and Junior classification
CSC 3358 Blockchain Business Application	CSC 3326
CSC 3359 Software Testing	CSC 2306 and Junior classification
CSC 4306 Software Project Management	CSC 3324 and Junior classification

Notes

- ❖ CSC 3308 is the new code for CSC 2309
- ❖ CSC 3309 is the original and resumed code for CSC 4301

Notes

o Several of the topics within the GenEd Program (41 SCH) are met by required courses in Areas 1, 2, and 3 of the BS programs in SSE (mathematics, computer science, basic science). The remaining topical areas (30 SCH) that satisfy the GenEd are listed in Area 4.

* FAS 0210 is a non-degree credit-bearing course, and it is a graduation requirement. It counts for 2 non-degree credits, i.e. they do not count towards the degree. However, this course can be waived upon a successful test-out.

** ECO 1300: requires no Course Prerequisites/ Co-Requisites (Catalog 2017-2019 p. 205). This course is designed only for students that are NOT majoring or minoring in Business Administration or Human Resource development. Therefore, it cannot serve as a substitute for ECO 2301 or ECO 2302. However, students that are eligible to take this course may also take it as an elective course (Catalog 2017-2019 p. 120).

*** Art Appreciation & Creation:

ART 1301 "Music & Vocal Performance"

ART 1302 "Dance & Choreography"

ART 1303 "Painting & Sculpture"

ART 1304 "Drama & Theater"

ART 1305 "Art Appreciation"

ART 1399 "Special Topics in Arts:"

ENG 2320 "Creative Writing"

HUM 2301 "Islamic Art & Architecture"

COM 2327 "Art & Design Production": requires COM 2403 as Course Prerequisite/ Co-Requisite

LIT 3370 "Aesthetics": requires Junior Classification

(1) All degree-seeking students must earn 2 SCH of Arabic language by taking one course from the list. Arabic courses are categorized depending on the student's high school diploma and prior Arabic proficiency level.

Holders of the Moroccan baccalaureate take ARB 1241 without placement.

Holders of a cultural mission baccalaureate in Morocco (French, Spanish, etc.) take one ARB course based on placement test results.

Holders of international high school degrees with no prior Arabic language instruction take one ARA course based on placement test results.

(2) Holders of the Moroccan baccalaureate must earn 2 SCH of French language by taking FRN 3210 as an exit level. Every newly admitted student is required to take a free international official French placement test TEF (Test d'Evaluation de Français) in order to determine how many courses in French he/she needs to take and at what level. If based on TEF placement test results students have to take additional French courses as prerequisites, the latter will not count towards the degree. Students may not take French in their first semester of study, and they can also be exempted upon earning a minimum of C1 in TEF and 16 in GAT. International students with no prior knowledge of French may choose to take Spanish to satisfy GenEd language requirements.

(3) A course with an SL component must be taken as co-requisites. Failing the course will de facto result in failing the SL component, too. Failing the SL component will result in an NRP in the SL component only. Students who fail the SL component must enroll in another course from their degree plan with an SL component in the subsequent semesters.

(4) In case no subsequent course in the student's degree plan is offered with an SL (Service Learning) component, he/she must submit an SL proposal to the SLP Committee and enroll in SLP 1101.

**** EGR 4300 may be combined with EGR 4402 for 7 SCH with approval (Catalog 2017-2019, page 214).