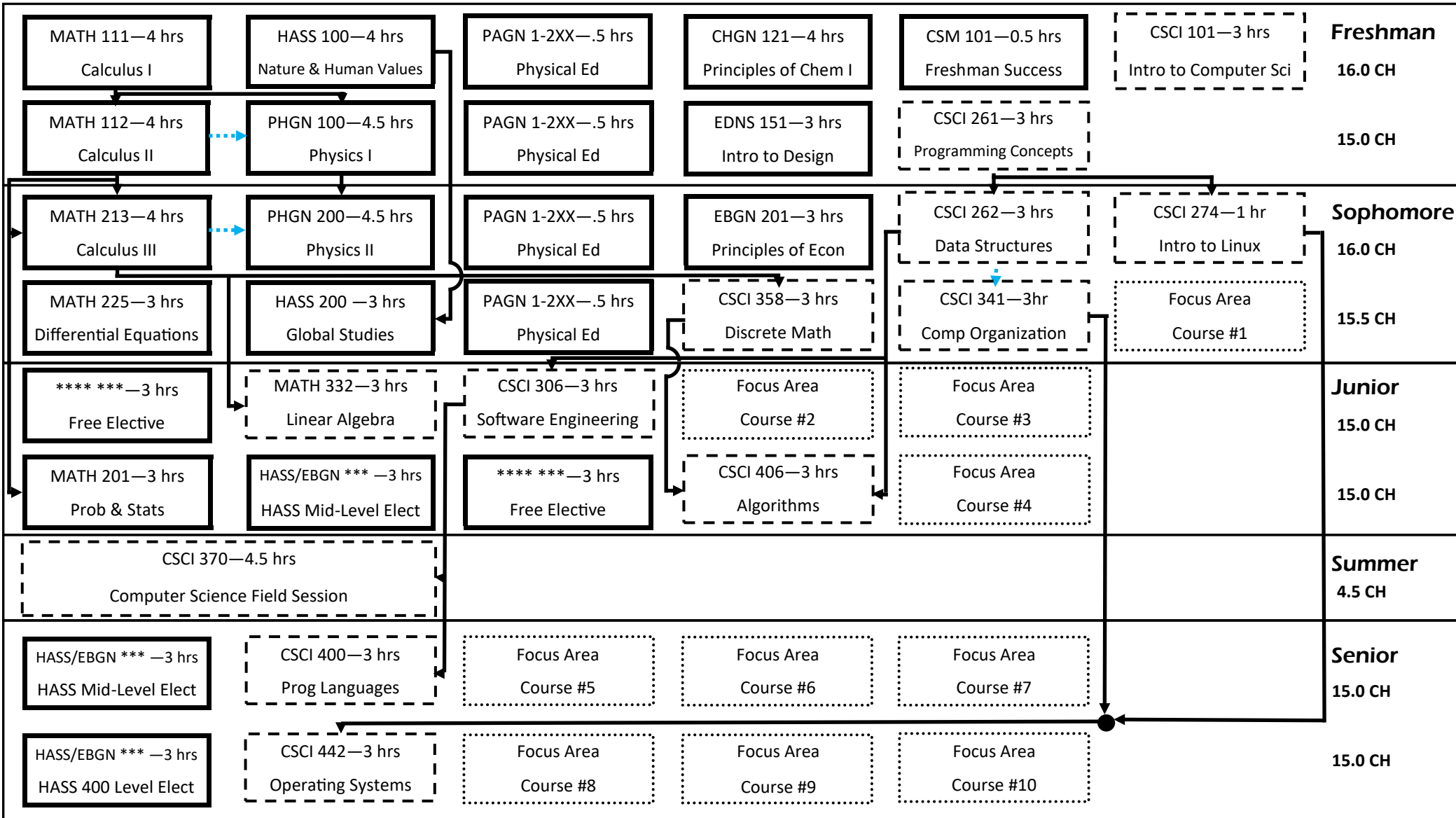
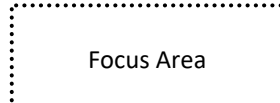
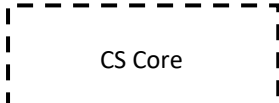


## 2019—2020 Computer Science Curriculum Flowchart



Total 127.0 CH



- Solid Line = Pre-Req
- Dashed Line = Co-Req

# CS@Mines Focus Area Courses

## Computer Science

1	Free Elective	3.0
2	CSCI 403 Database Management P: CSCI 262	3.0
3	Free Elective	3.0
4	CS Elective^	3.0
5	CS Elective^	3.0
6	CS Elective^	3.0
7	Free Elective	3.0
8	CS Elective^	3.0
9	CS Elective^	3.0
10	Free Elective	3.0

## CS + Business

1	CSCI 303 Intro to Data Science P: CSCI 101 OR CSCI 261	3.0
2	CSCI 403 Database Management P: CSCI 262	3.0
3	BS Elective <sup>#&amp;</sup>	3.0
4	BS Elective <sup>#&amp;</sup>	3.0
5	BS Elective <sup>#&amp;</sup>	3.0
6	CSCI 475 Info Security & Privacy P: CSCI 262 & CSCI 341	3.0
7	CS Elective^	3.0
8	BS Elective <sup>#&amp;</sup>	3.0
9	CSCI 445/446/448	3.0
10	Free Elective	3.0

## CS + Computer Engineering

1	CSCI 250 Python Based Computing C: MATH 213 & PHGN 200	3.0
2	EENG 281 Intro to Circuits <sup>#&amp;</sup> P: PHGN 200	3.0
3	EENG 284 Digital Logic <sup>#</sup> P: CSCI 261 C: EENG281	4.0
4	EENG 383 Microcomp Architecture P: EENG 281 & EENG 284	4.0
5	CSCI 471 Computer Networks P: CSCI 262 & CSCI274	3.0
6	CSCI 475 Info Security & Privacy P: CSCI 262 & CSCI 341	3.0
7	CS Elective^	3.0
8	CSCI 403/440/474	3.0
9	Free Elective	3.0
10	Free Elective	1.0

# Four unique business electives must be chosen from EBGN 320/321/345/346/360/425/460/485

& If BS Elective used to fulfill HASS restricted elective, then an additional BS Elective or eligible CS elective must be substituted

# PHGN 215 + PHGN 317 can be substituted with pre-approval

& EENG 282 may be substituted for EENG 281

## CS + Data Science

1	CSCI 303 Intro to Data Science P: CSCI 101 or CSCI 261	3.0
2	CSCI 403 Database Management P: CSCI 262	3.0
3	MATH 334 Intro to Probability P: MATH 213	3.0
4	MATH 335 Intro to Math Stats P: MATH 334	3.0
5	MATH 424 Intro to Applied Stats P: MATH 332 & MATH 335	3.0
6	CSCI 470 Intro to Machine Learning P: MATH 201 & MATH 332	3.0
7	MATH 432/436/437/438/439	3.0
8	CSCI 404/423/440/474/475	3.0
9	CS Elective^	3.0
10	Free Elective	3.0

## CS + Robotics and Intelligence Systems

1	CSCI 250 Python Based Computing C: MATH 213 & PHGN 200	3.0
2	EENG 281 Intro to Circuits <sup>#</sup> P: PHGN 200	3.0
3	Free Elective	3.0
4	MEGN 441 Intro to Robotics P: EENG 281 & CSCI 261	3.0
5	EENG 307 Intro to Feedback Controls P: EENG 281 & MATH 225	3.0
6	CSCI 470 Intro to Machine Learning P: MATH 201 & MATH 332	3.0
7	CSCI 437 Intro to Computer Vision P: MATH 201 & MATH 332 & CSCI 261	3.0
8	CSCI 404 Artificial Intelligence P: MATH 201 & CSCI 262	3.0
9	CSCI 473 Human Centered Robotics P: MATH 201 & CSCI 262	3.0
10	CS Elective^	3.0

# EENG 282 may be substituted. PHGN 215 can be substituted with preapproval

## CS + Research Honors

1	Free Elective	3.0
2	CSCI 403 Database Management C: CSCI 262	3.0
3	GPGN 350 Science & Comm. Skills	3.0
4	CS Elective^	3.0
5	CSCI 480 CS Honors Thesis	3.0
6	CSCI 5** CS Honors Elective <sup>#</sup>	3.0
7	CS Elective^	3.0
8	CSCI 480 CS Honors Thesis	3.0
9	CSCI 5** CS Honors Elective <sup>#</sup>	3.0
10	CS Elective^	3.0

# CS Honors Elective may be any CSCI 500 level course approved by adviser

^ CS Electives may be chosen from any CSCI 400-level course, any CSCI 500-level course (with approval), MATH 307, or EENG 383. EDNS 491 & EDNS 492, when taken together, can both be counted as a CS Elective. A course required for a focus area cannot also be counted for a CS Elective