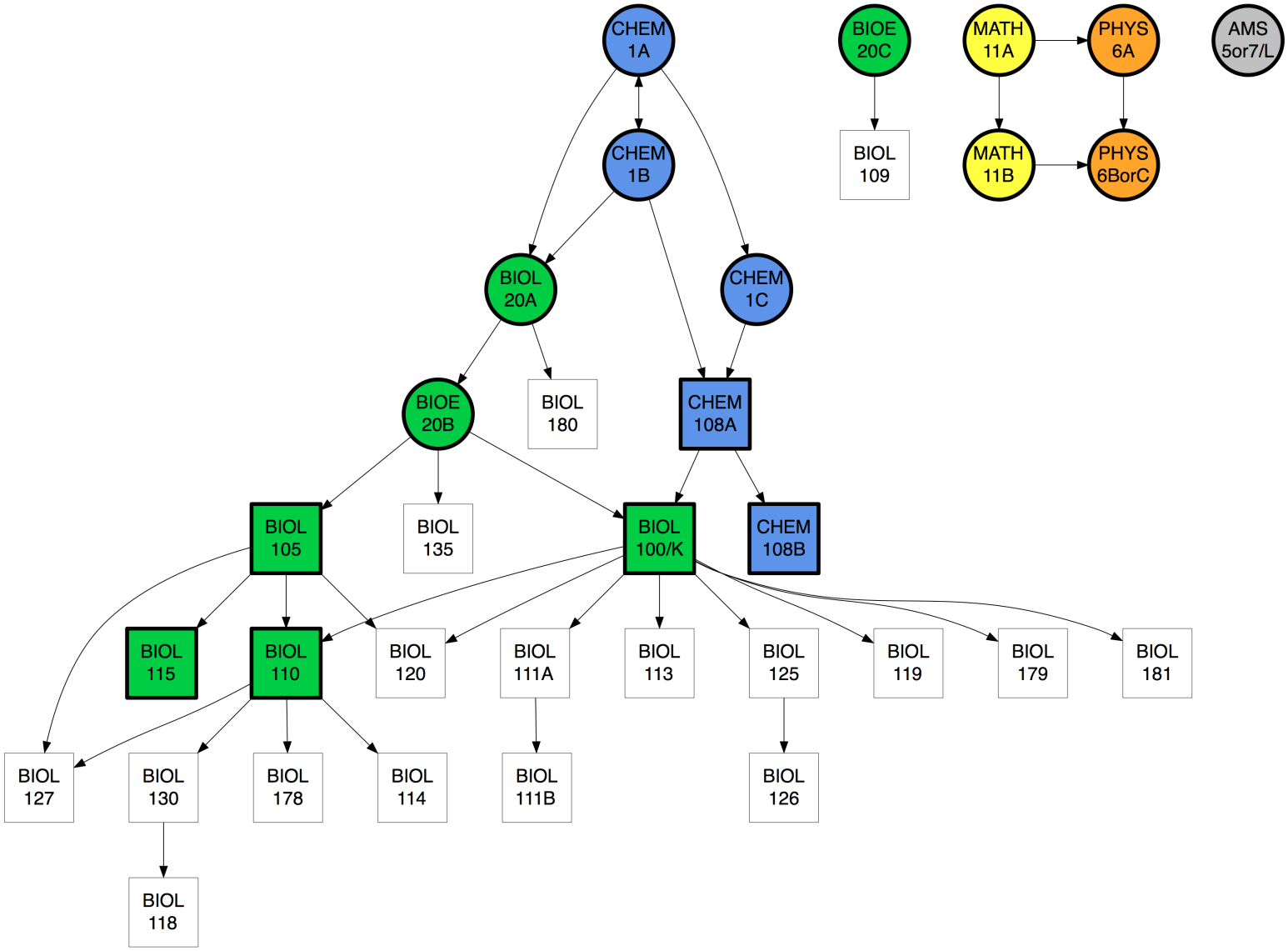
Using Major Maps in Advising and Curricular Planning



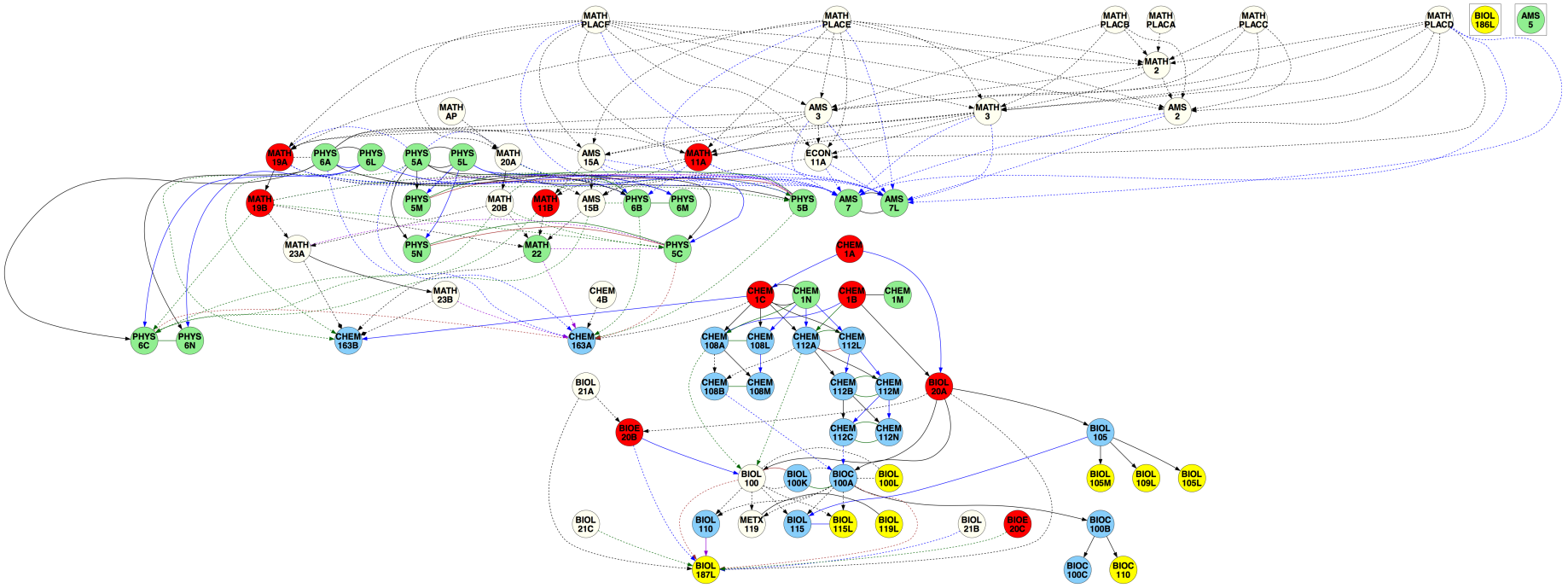
Considerations when using major maps

Tailor map to intended audience

Academic input is essential

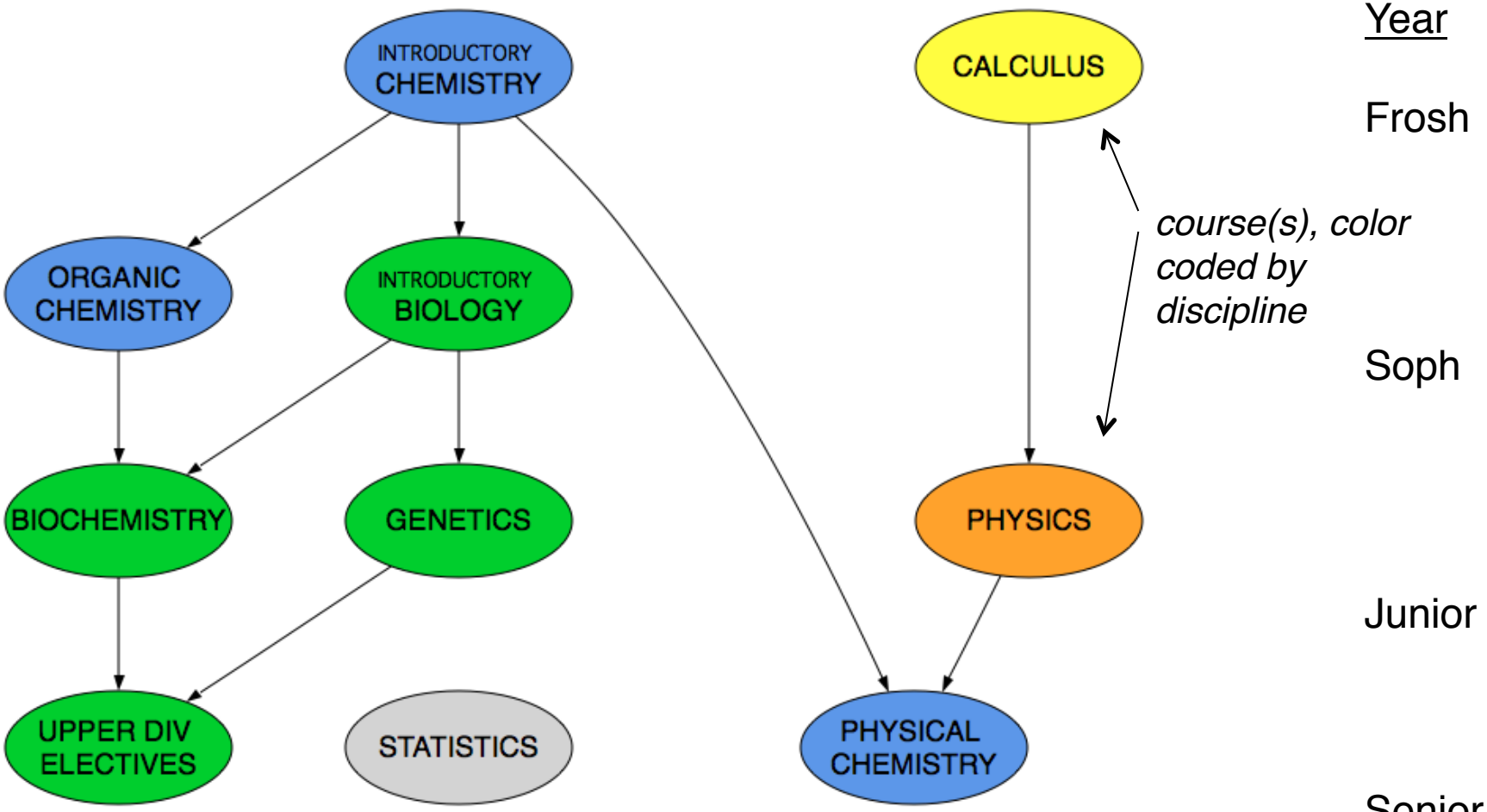
Access to data is critical

Complete maps are useful for curriculum committees, but not for prospective students or casual users

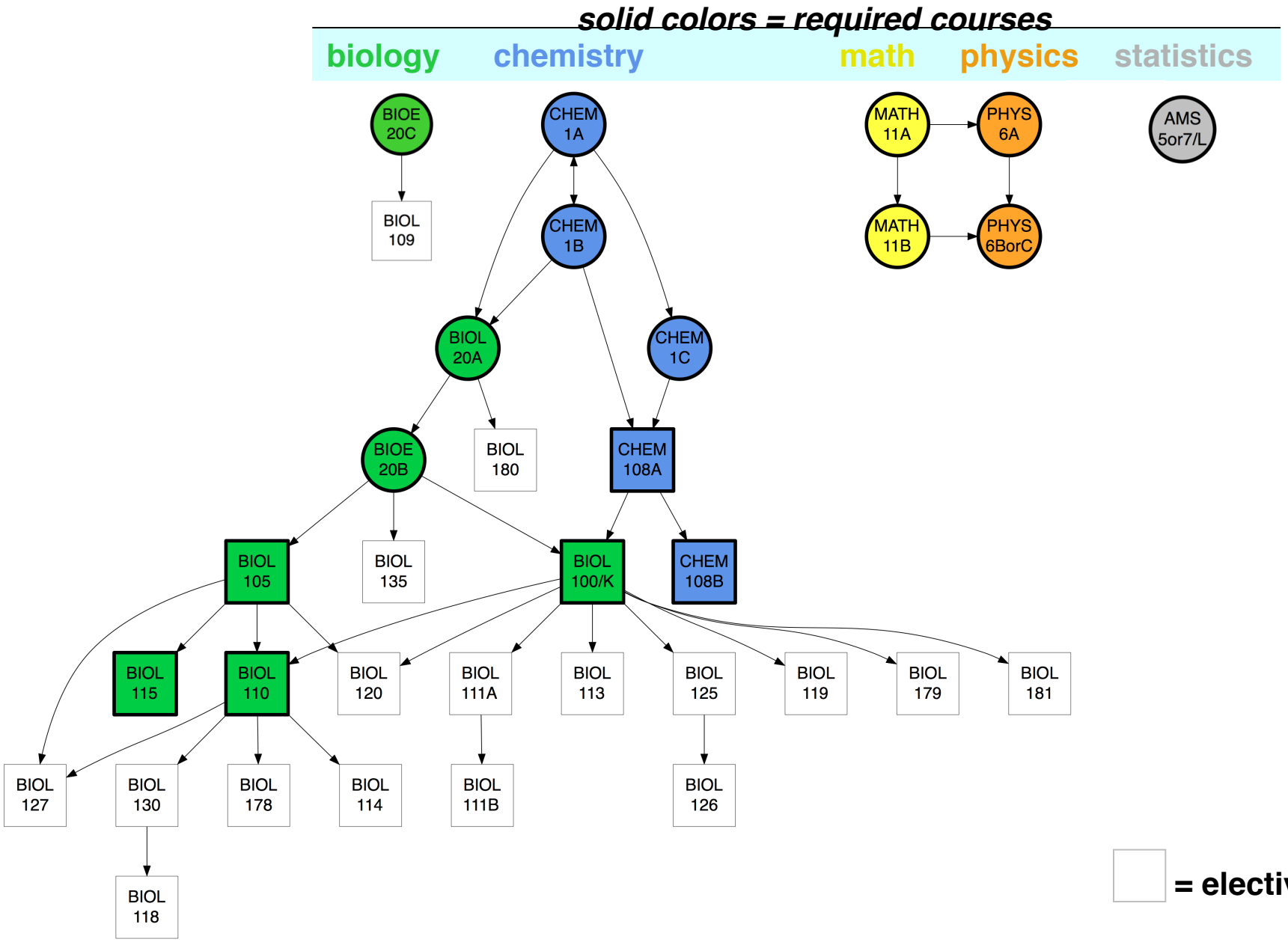


Simplified maps for prospective students

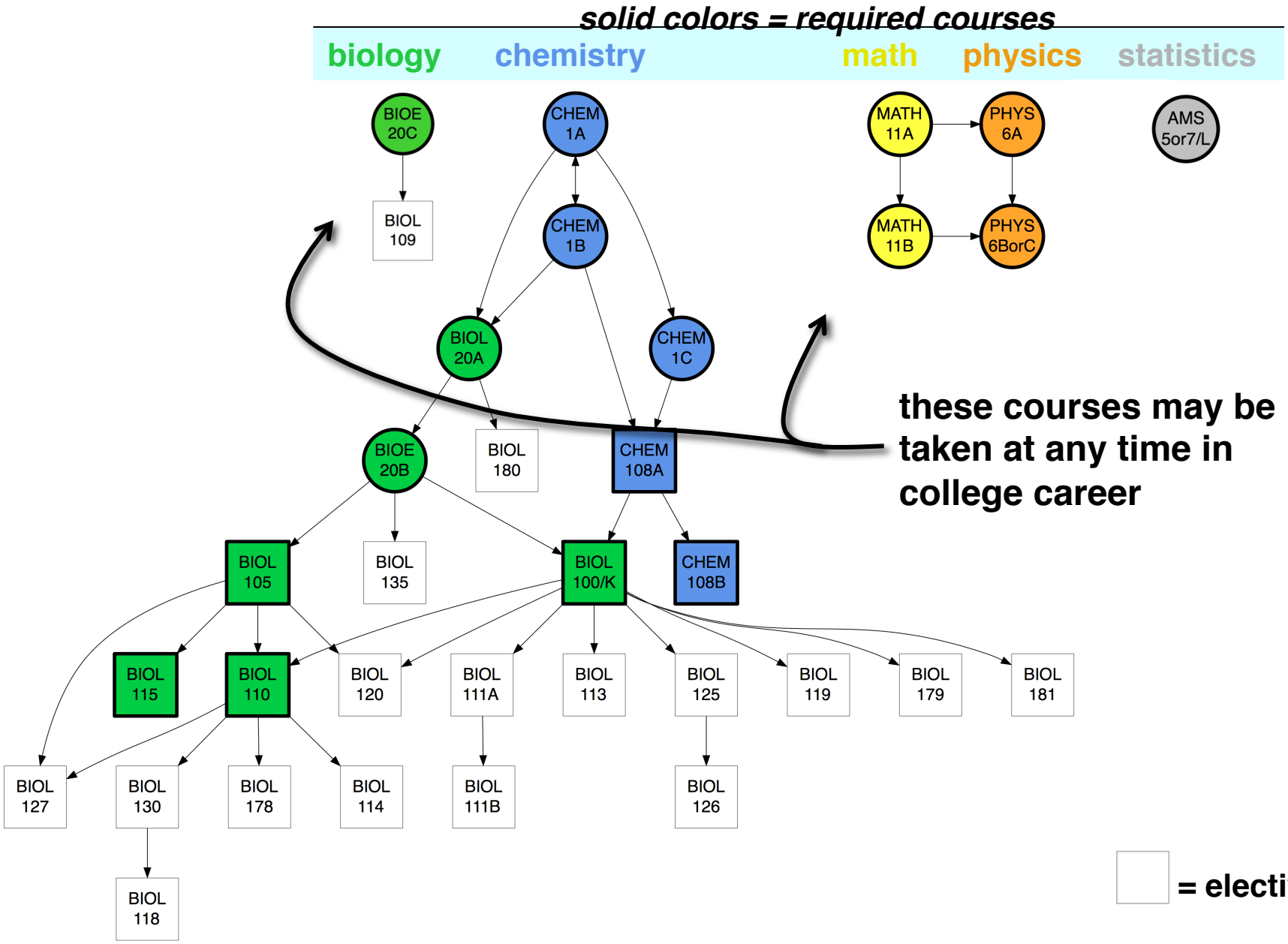
Overview of MCD-sponsored degrees



Maps for curricular planning



Maps for academic and curricular planning

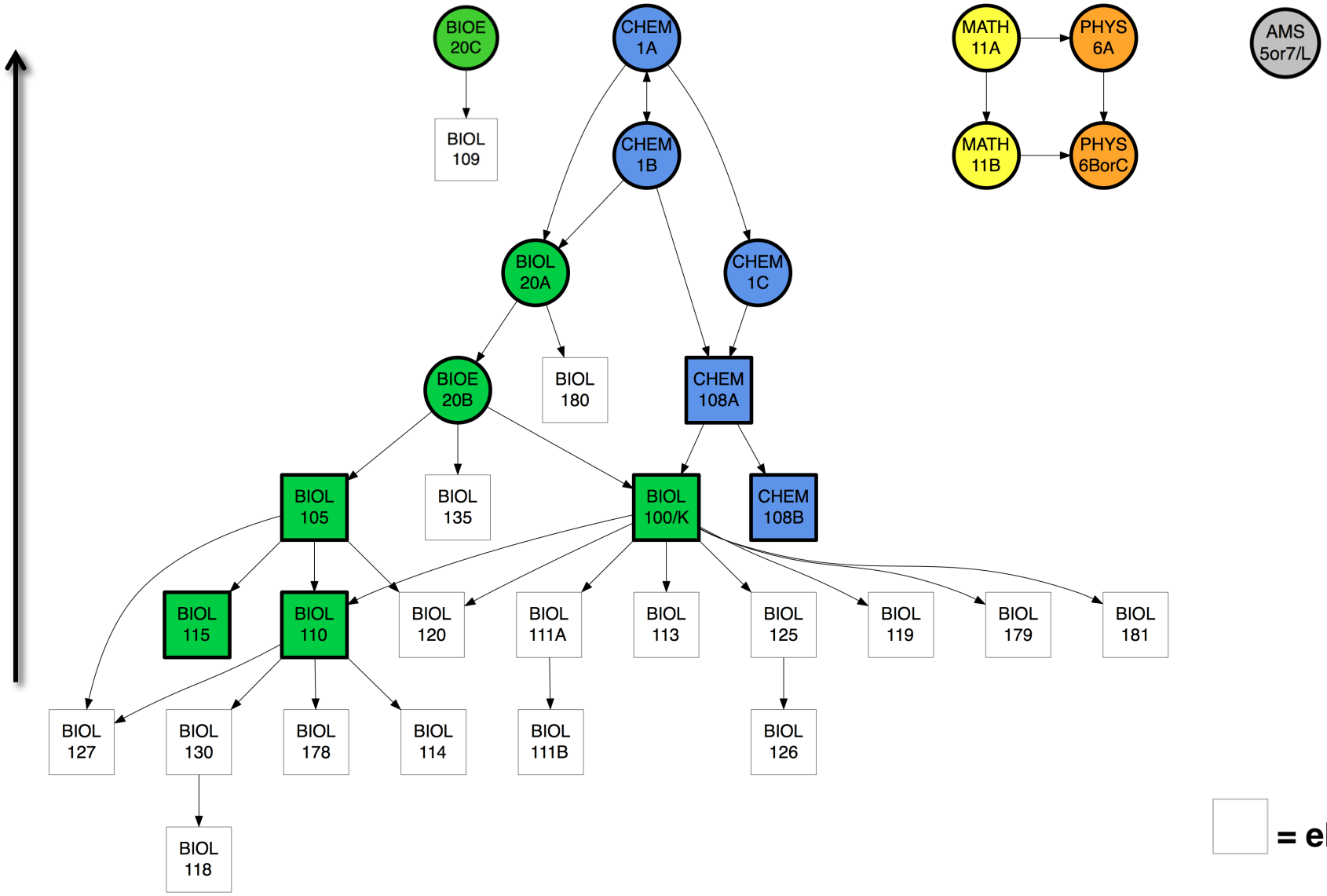


Maps for curricular planning

minimum of 6 quarters to complete degree

solid colors = required courses

biology chemistry math physics statistics



= elective

Using maps to analyze transfer advising

The Cabrillo College curriculum from the perspective of a potential UCSC Biology major

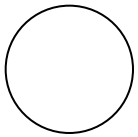
Used articulation agreements (assist.org) and course descriptions in the Cabrillo catalog to generate a map of introductory courses required for a generic life science major

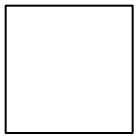
Courses color-coded by discipline

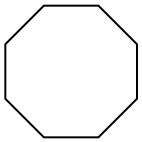
Biology **Math**

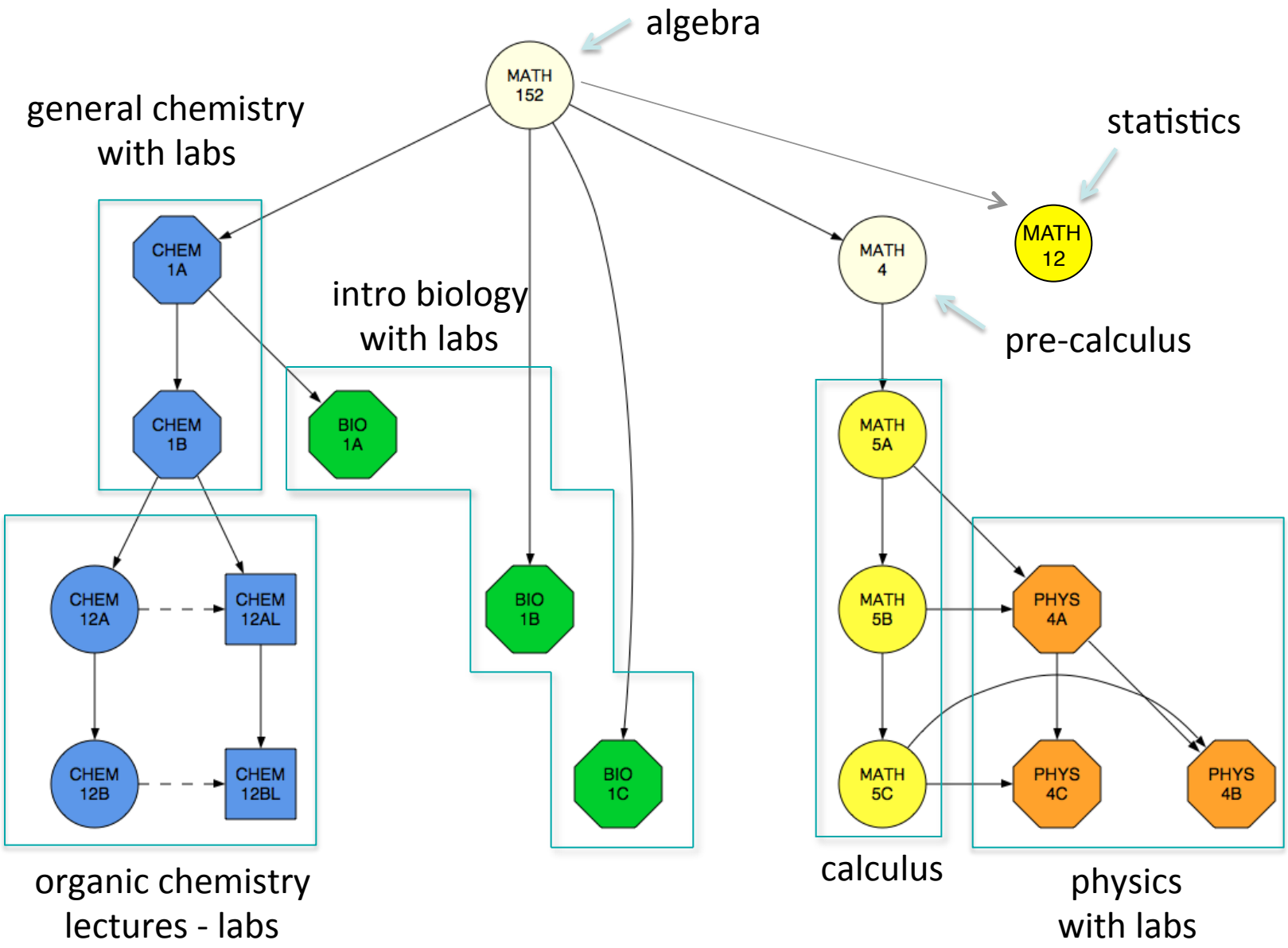
Chemistry **Physics**

Transfer req.s

 **lecture**

 **lab**

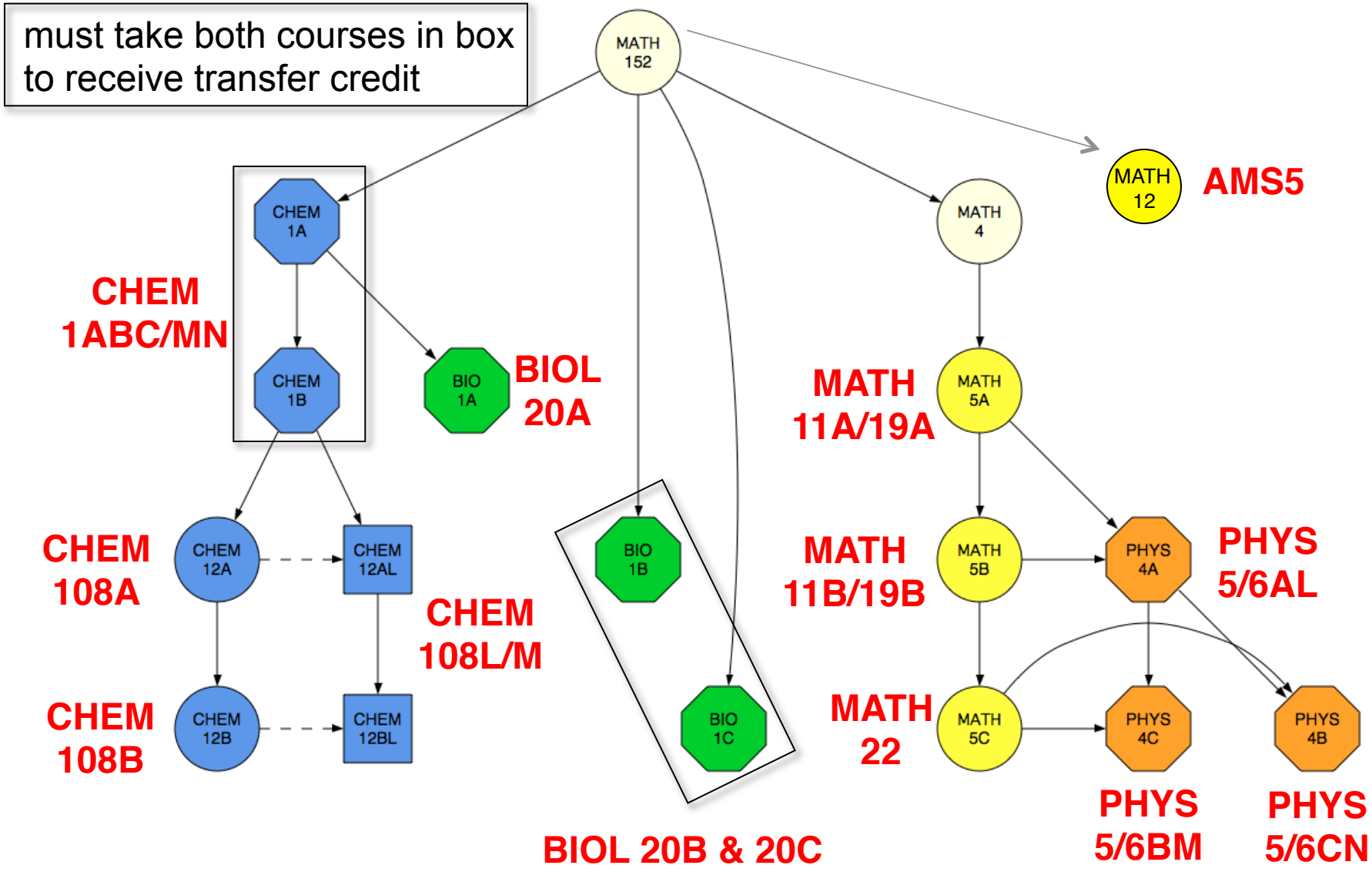
 **both**



Pre-requisites indicated by arrows

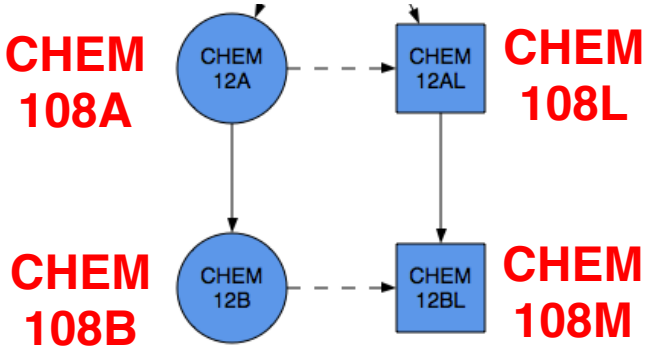
Articulation of transfer credit by discipline

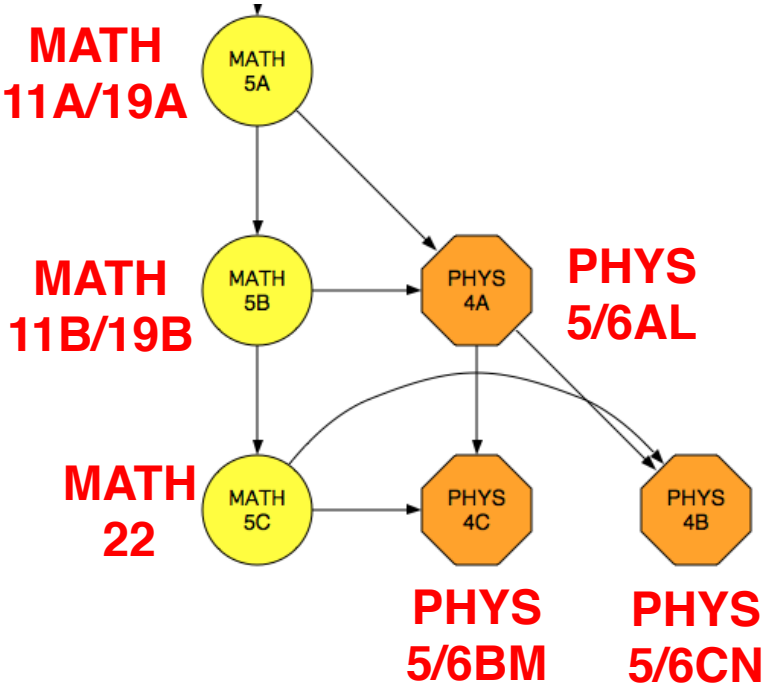
(Cabrillo map – UCSC courses in red)



3 types of articulation

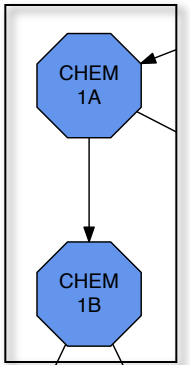
clean 1 to 1 articulation





3 types of articulation

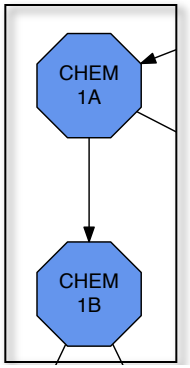
CHEM 1ABC/MN



all or none

3 types of articulation

CHEM 1ABC/MN

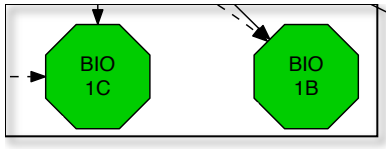


all or none

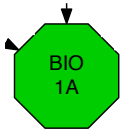
Students should take <u>entire</u> intro chem series at Cabrillo

3 types of articulation

mixed



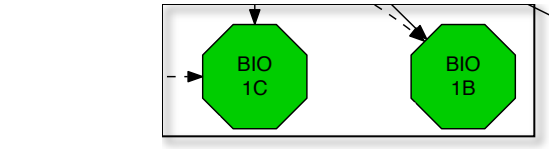
BIOL 20B & 20C



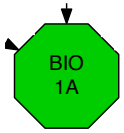
BIOL 20A

3 types of articulation

mixed



BIOL 20B & 20C



BIOL 20A

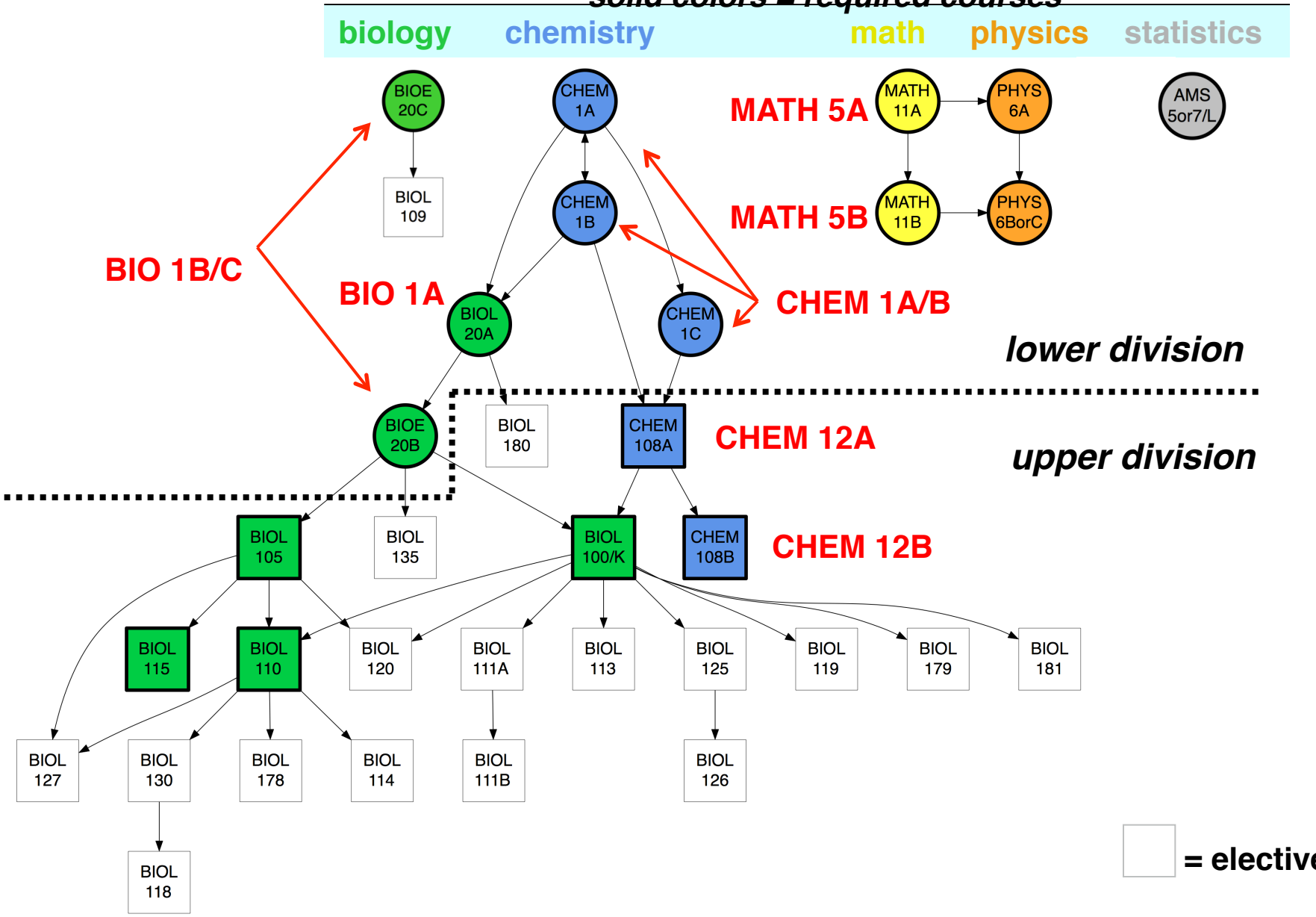
Human Biology and BMB majors do not require Bio20C.

Students must choose between 30 weeks (1 yr) of Bio1B/C at Cabrillo and 10 weeks (1 qtr) of Bio20B at UCSC

Articulation of transfer credit by discipline

(UCSC map, Cabrillo courses in red)

solid colors = required courses



Can major prep courses be completed in 4 semesters?

semester
1
2
3
4

typical full-time load = 15 units/semester

60 units required to transfer to UC

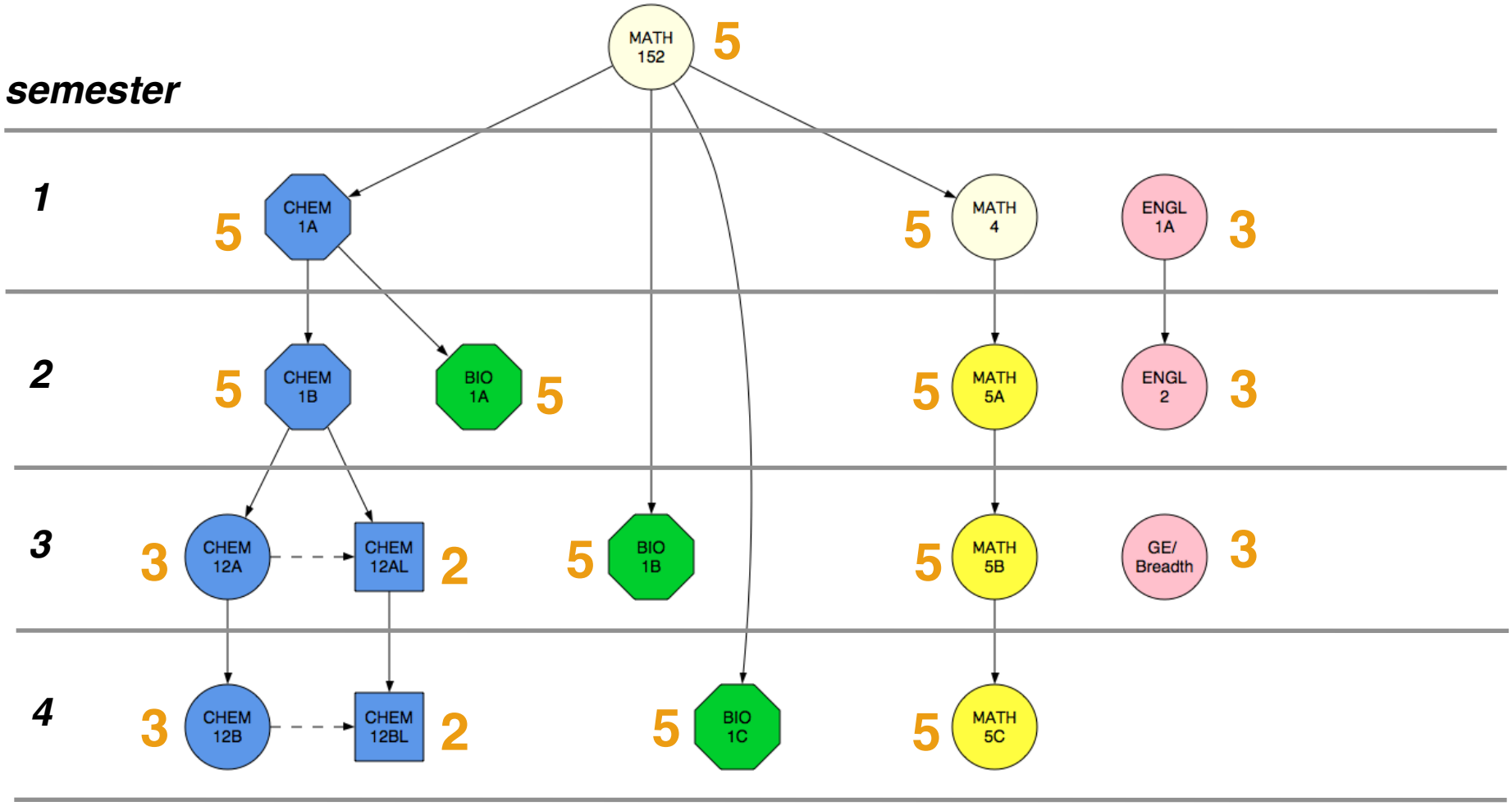
Can major prep courses be completed in 4 semesters?

semester	
1	ENGL 1A — 3
2	ENGL 2 — 3
3	GE/ Breadth — 3
4	

UC transfer requirements that will not be satisfied during major prep.

#=semester units

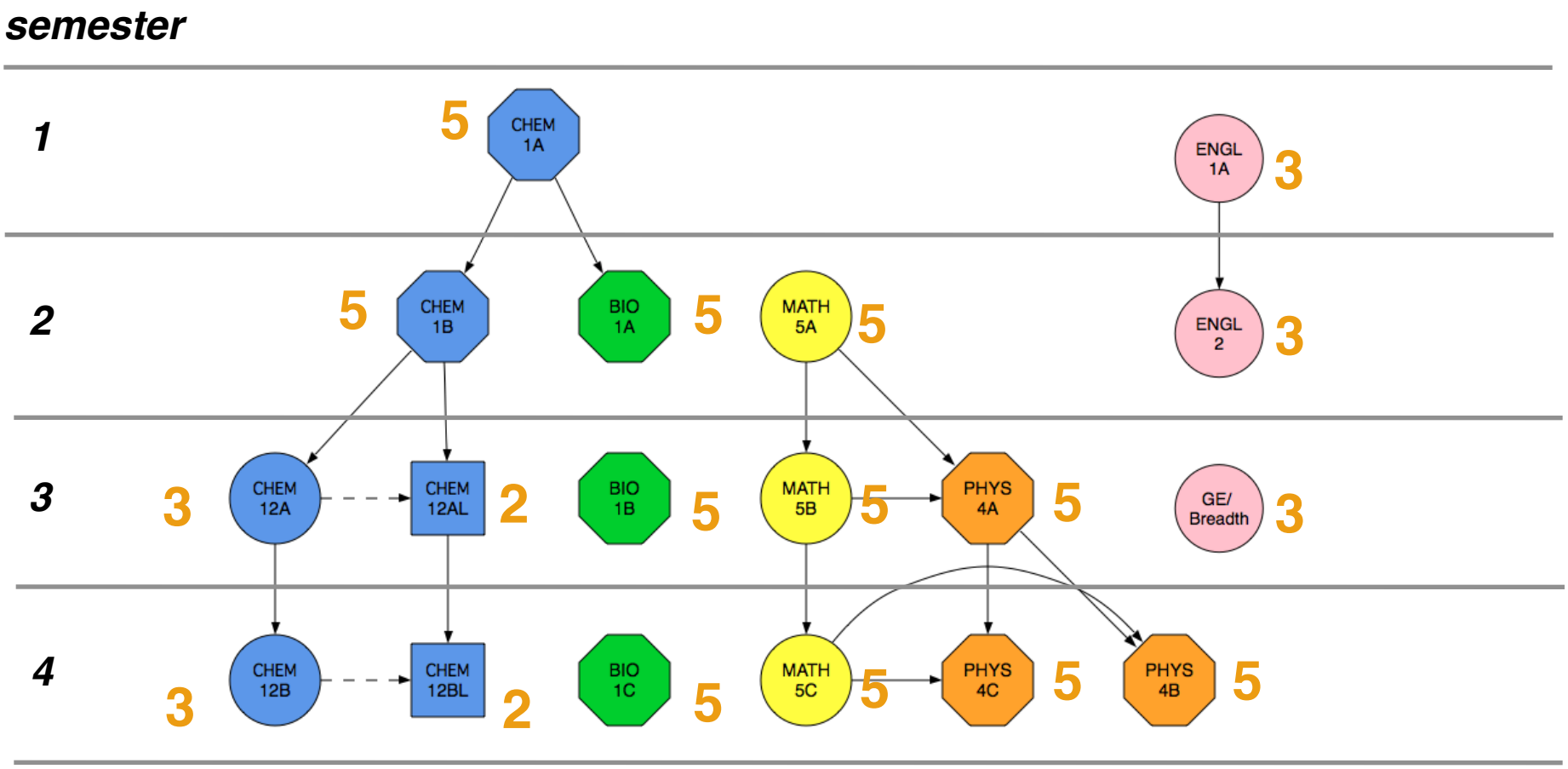
Can lower division courses be completed in 4 semesters?



Students who require remedial math instruction cannot transfer within two years (69 units/5 semesters)

#=semester units

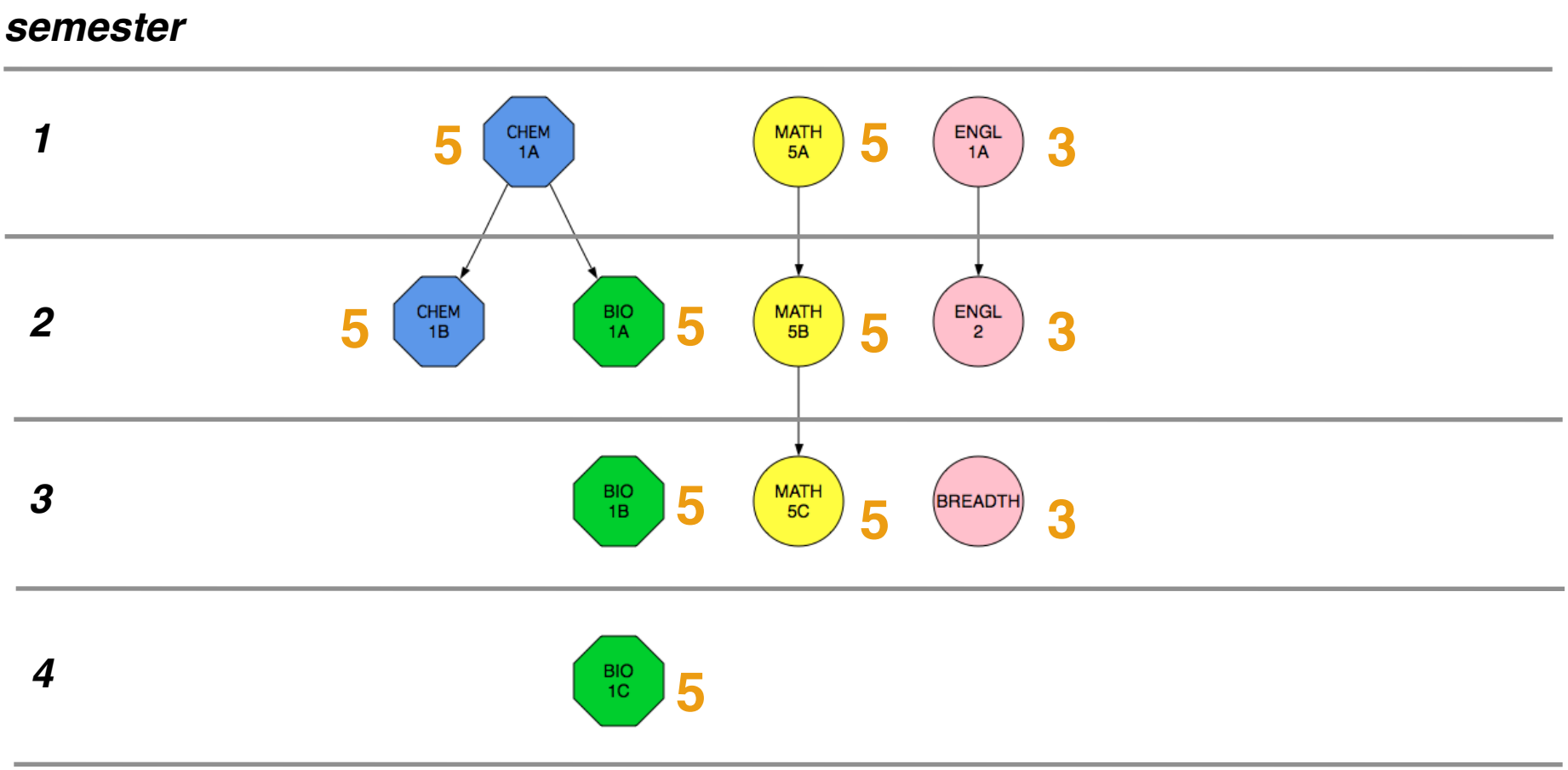
Can lower division courses be completed in 4 semesters?



Not realistic for students to complete both physics and organic chemistry (74 units)

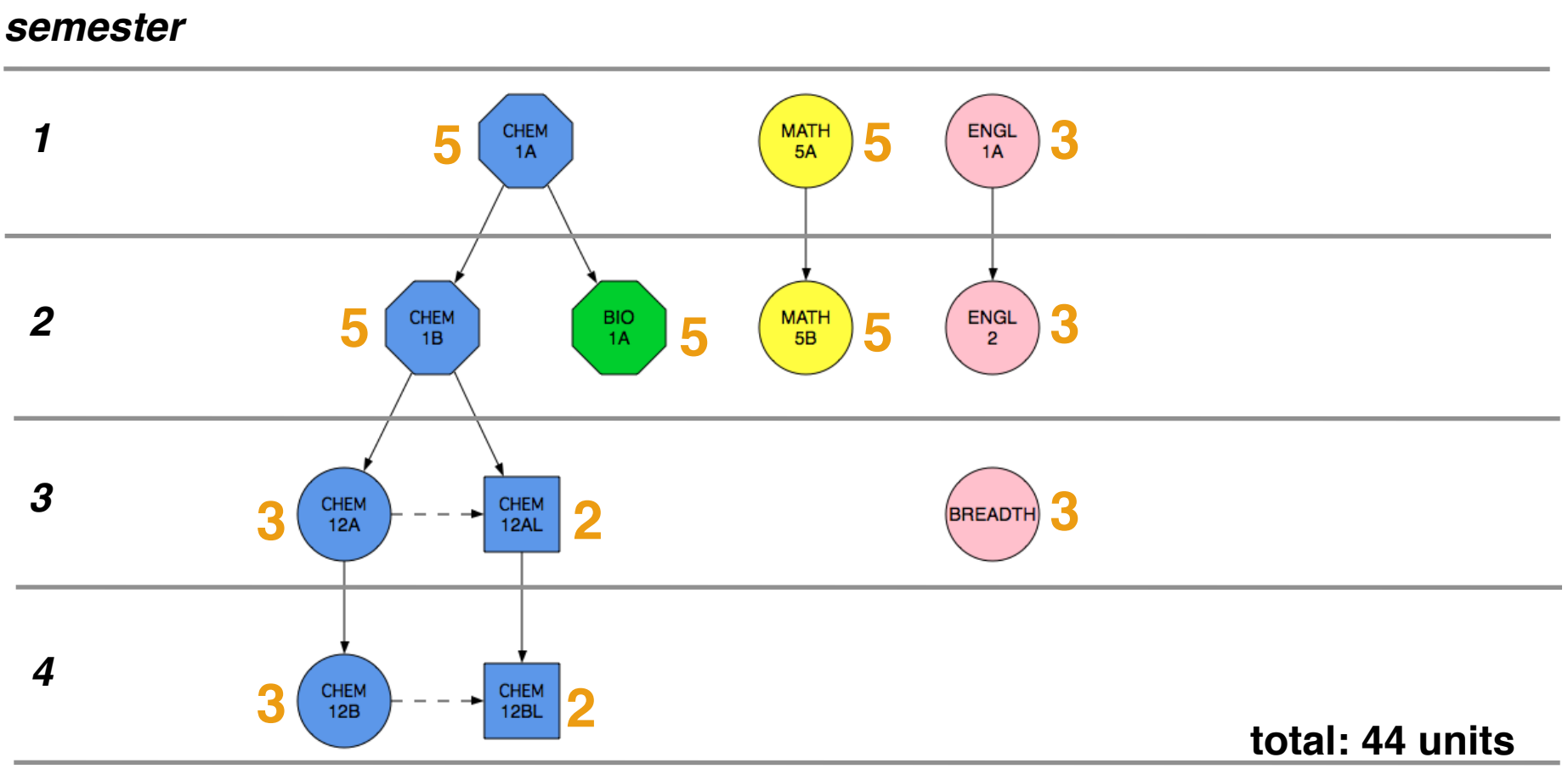
#=semester units

Current advising for MCD Biology Major



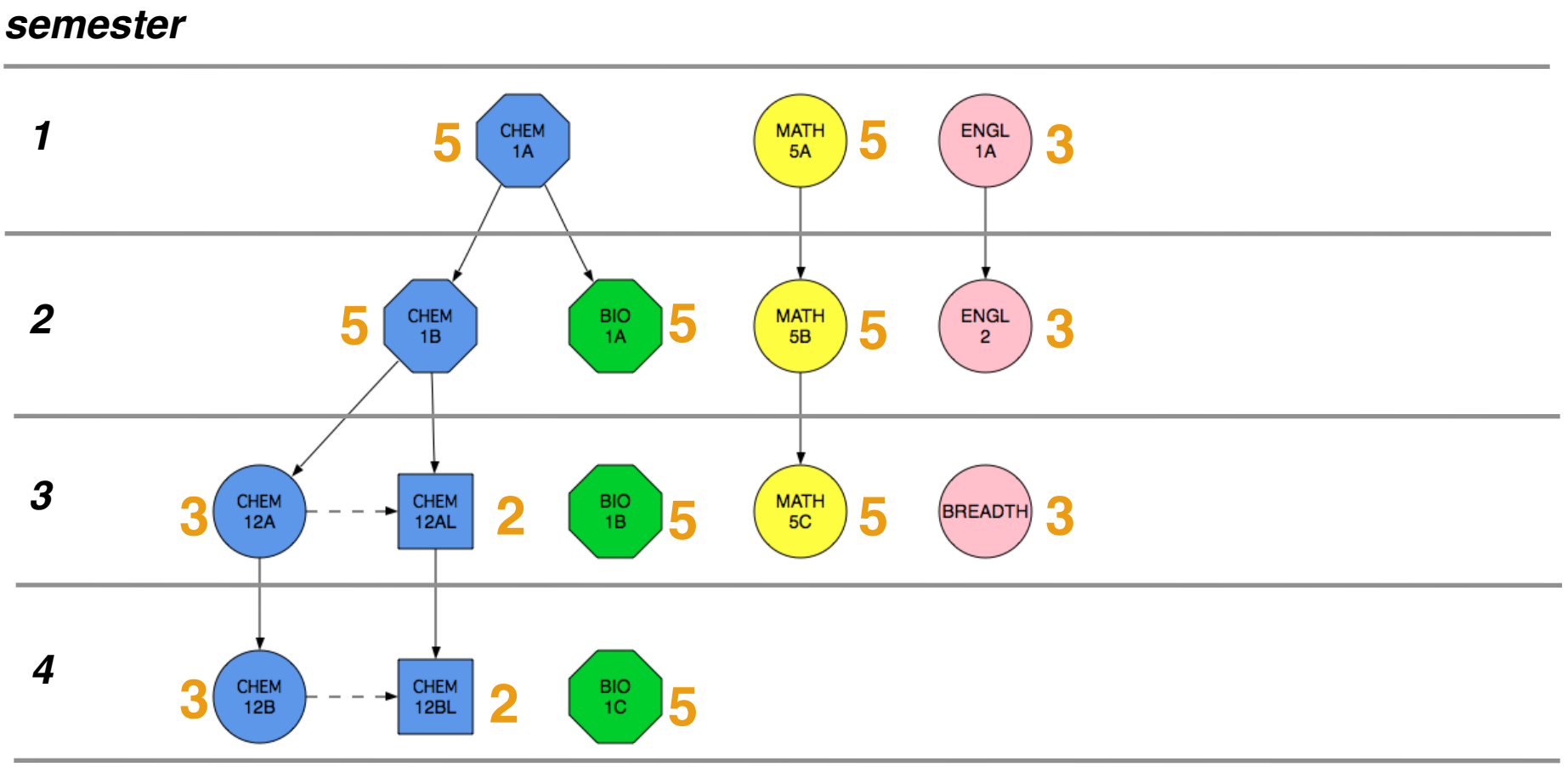
Note that there are ambiguities and contradictions in advice
49 units/4 semesters
Students can satisfy IGETC in 64 units total

An alternative pathway into MCD Biology?



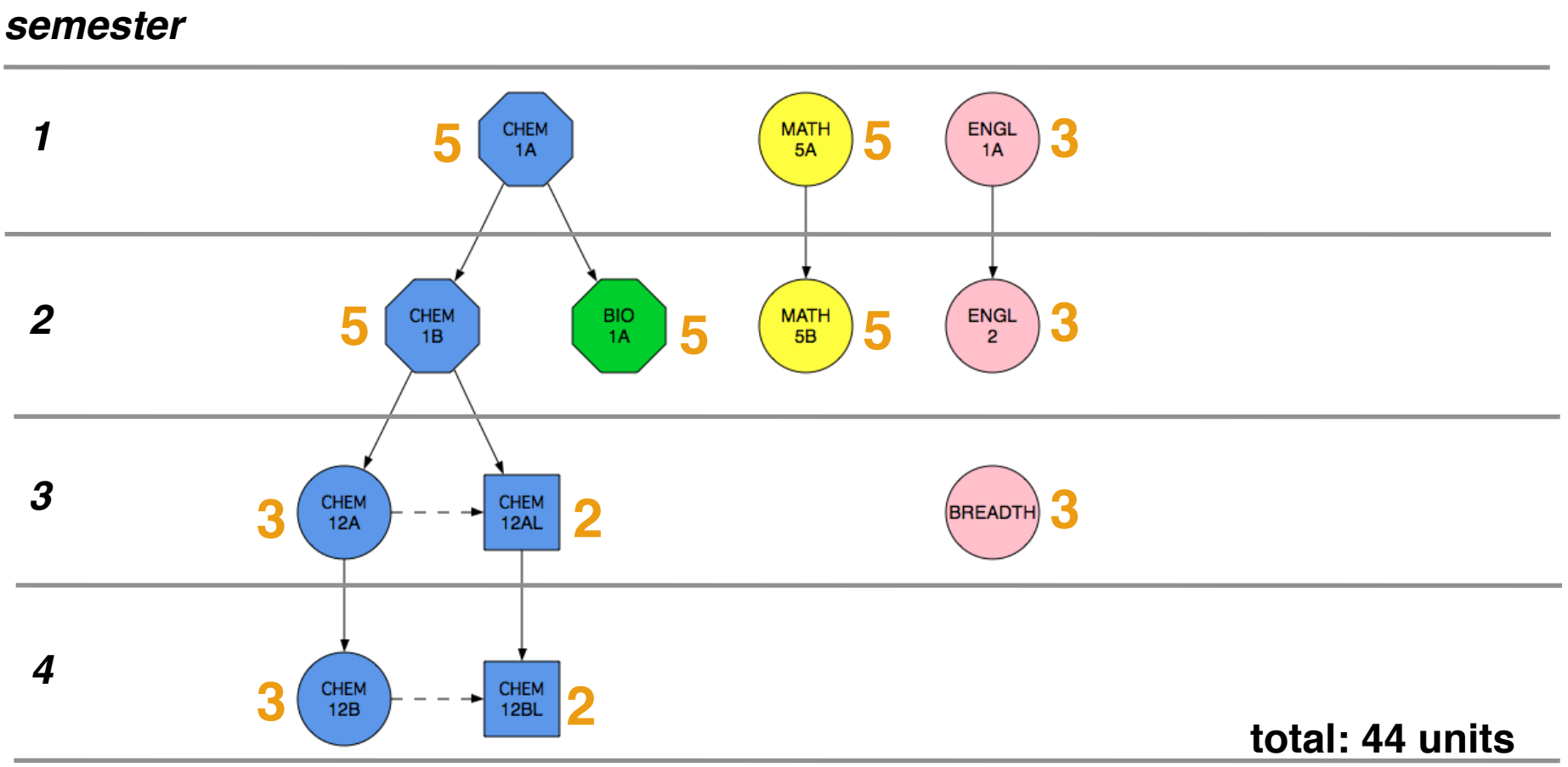
Under this schedule, a student would take Bio20B/C at UCSC. Net result, fewer science classes at UCSC and opportunity to satisfy IGETC.

Current transfer advising for BMB



59 units/4 semesters, but a very difficult, science heavy schedule

Proposed revision to transfer advising for BMB



Under this schedule, a student could also take remedial coursework, satisfy IGETC, *saving ~ 5 GE courses at the cost of only 2 science courses at UCSC*

Conclusions

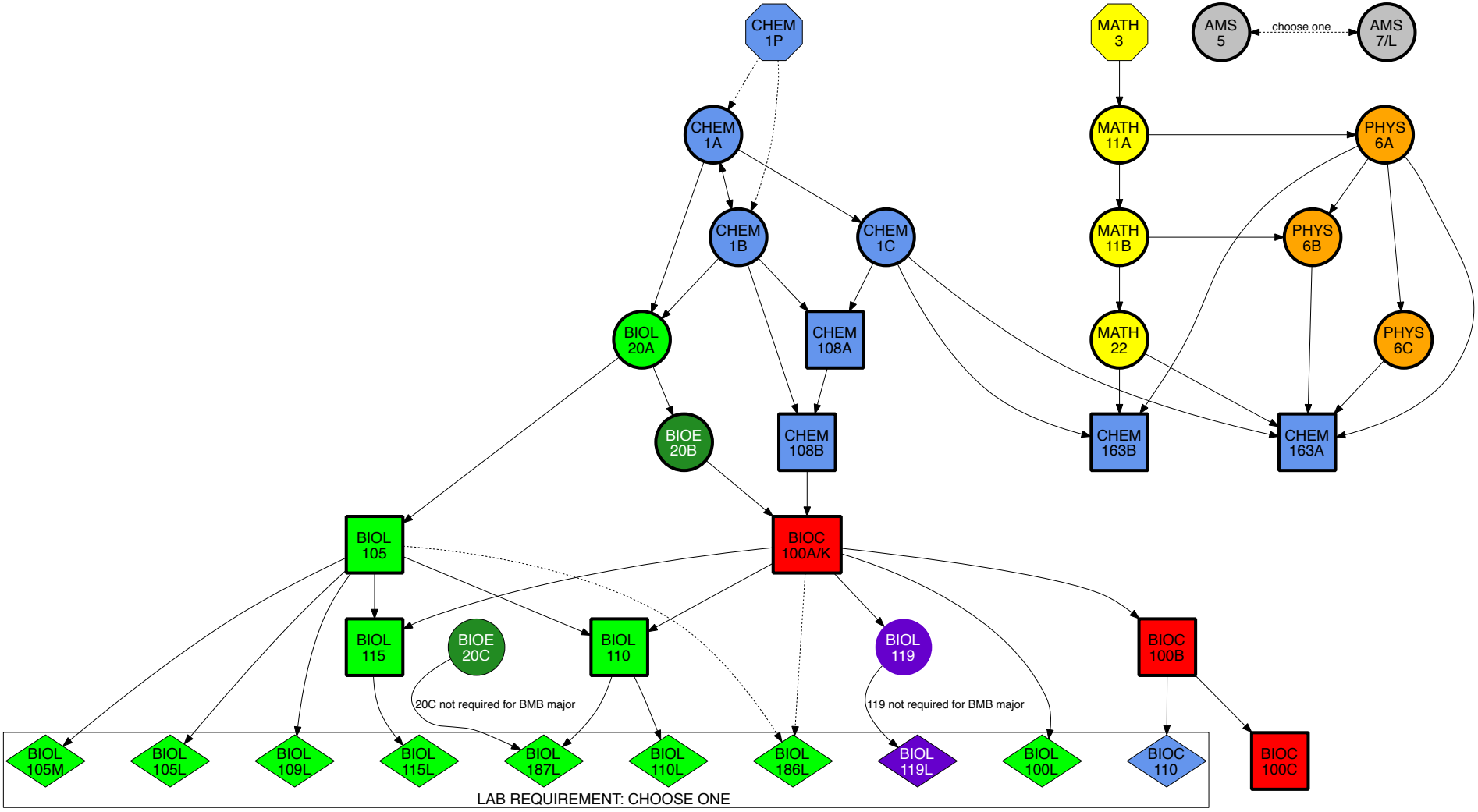
Use maps to facilitate:

- 4 year graduation rates for transfer students

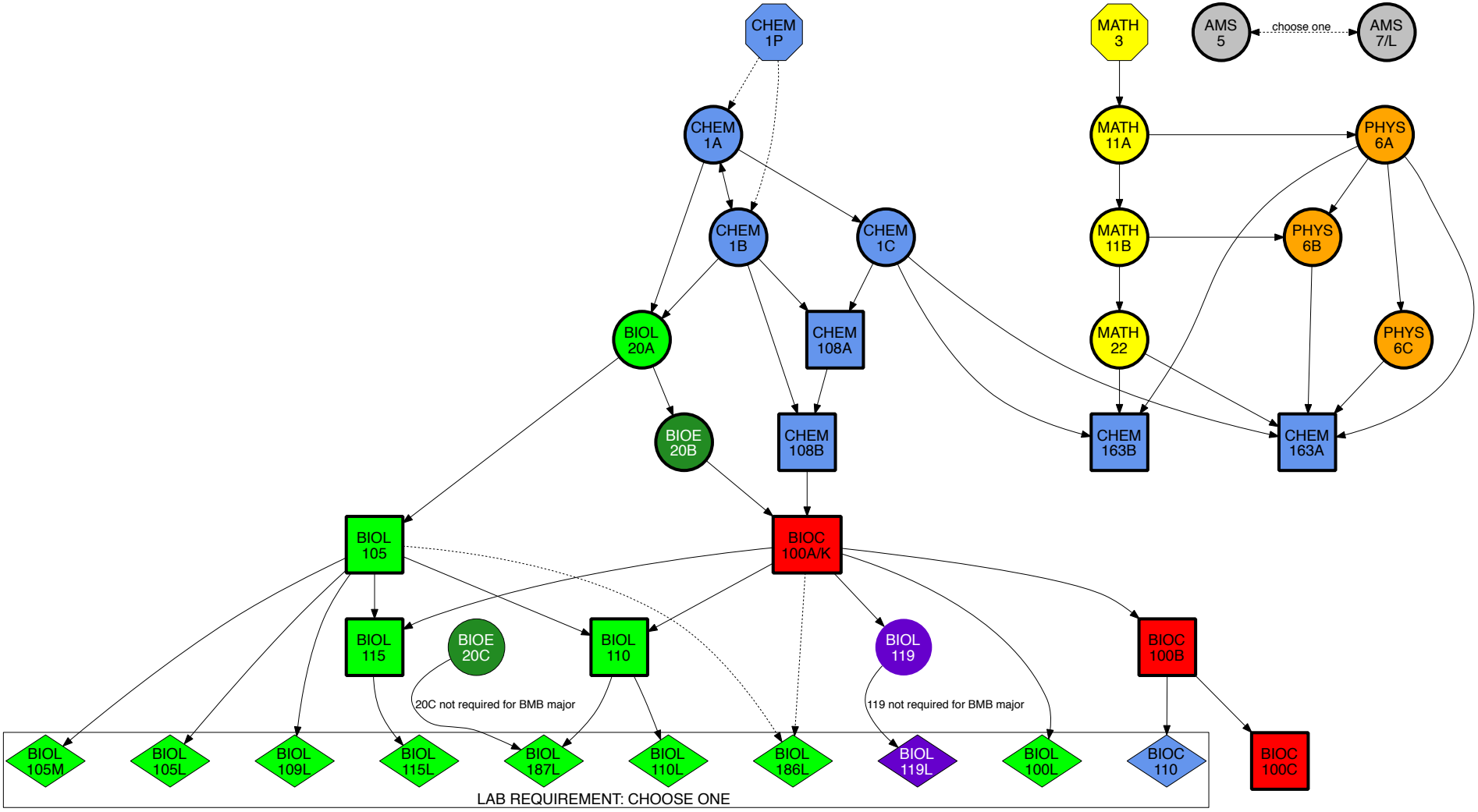
- curricular efficiency and cost savings

- clear, helpful advising plans will help attract the best transfer students to our campus

Other uses of maps:



Other uses of maps: who owns classes in a major?



Other uses of maps:

- Where do transfer students enter our curriculum?
- Gender/racial distribution in our curricula
- How efficient is our curriculum? Are students failing late in their careers?