

Washington State Community and Technical Colleges Mathematics Pathways Packet



Developed by
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June 8, 2017

Introduction to Mathematics Pathways Packet

In 2013, the Direct Transfer Agreement [DTA] between the Community and Technical Colleges [CTC] and the four-year colleges and universities was modified, allowing CTC mathematics faculty the opportunity to address their students' needs in their precollege math programs. Due to the relative independence of colleges within the CTC system, math faculty had flexibility in designing their college's precollege math programs to offer opportunities for students beyond the single pathway to all of the entry college-level math courses.

The Mathematics Pathways Packet describes the course offerings in each of the math programs at the CTCs in Washington State. A common flowchart was developed in order to illustrate more readily the various models that CTCs have utilized to help their students gain access to college-level math courses that transfer to four-year institutions.

Examinations of the CTCs websites and course catalogs were conducted to gather initial information about the CTCs math programs. Then, interviews with faculty and staff at the CTCs were performed to clarify and confirm the flowcharts that were developed. This packet provides flowcharts for the CTCs' math programs in 2016-17.

Each of the flowcharts illustrates the pathways within all of the CTCs' precollege math programs. The pathways are defined by the college level math courses that match up with the courses required in the DTA: Liberal Arts, Statistics, Elementary Education, Business, and STEM. The pathways within the precollege math program are color coded to match the college level math courses. Thus, by identifying the college level course that is needed for a student, one can follow the path from the precollege course where the student initially places to the desired college level course.

Math placement information is provided for each of the CTCs in a chart with each CTC flowchart. Six common methods have been identified for math placement of students: placement test, high school transcript, reciprocity, prior math class, SAT/ACT, and Smarter Balance. The chart also gives the length of time the placement is valid as determined by the college.

Lastly, within the flowcharts of the four-year colleges and universities, information about equivalency of CTC courses and credits for AP and IB testing is provided. The number of CTCs that have the corresponding course designated as equivalent to the four-year institution's course is included in the flowchart. Since credit for AP and IB testing is determined by the four-year institutions for CTCs transfer students, a chart of the four-year institution's credits for scores on the AP and IB test is provided.

I would like to thank Edmonds Community College, the Dana Center, and SBCTC for their support in making this packet.

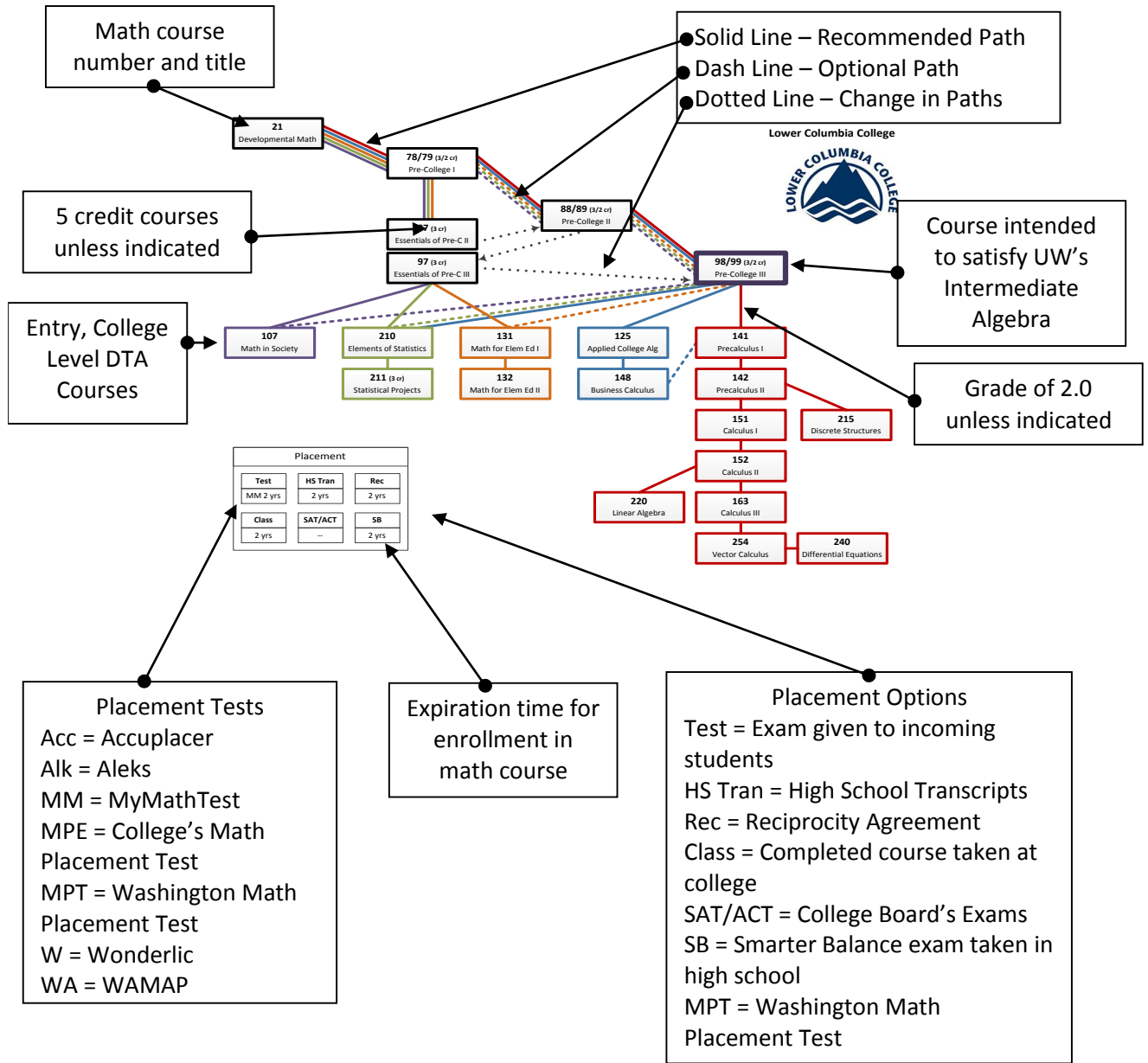


WASHINGTON STATE COMMUNITY
AND TECHNICAL COLLEGES

**Math Pathways
to Completion**

Legend

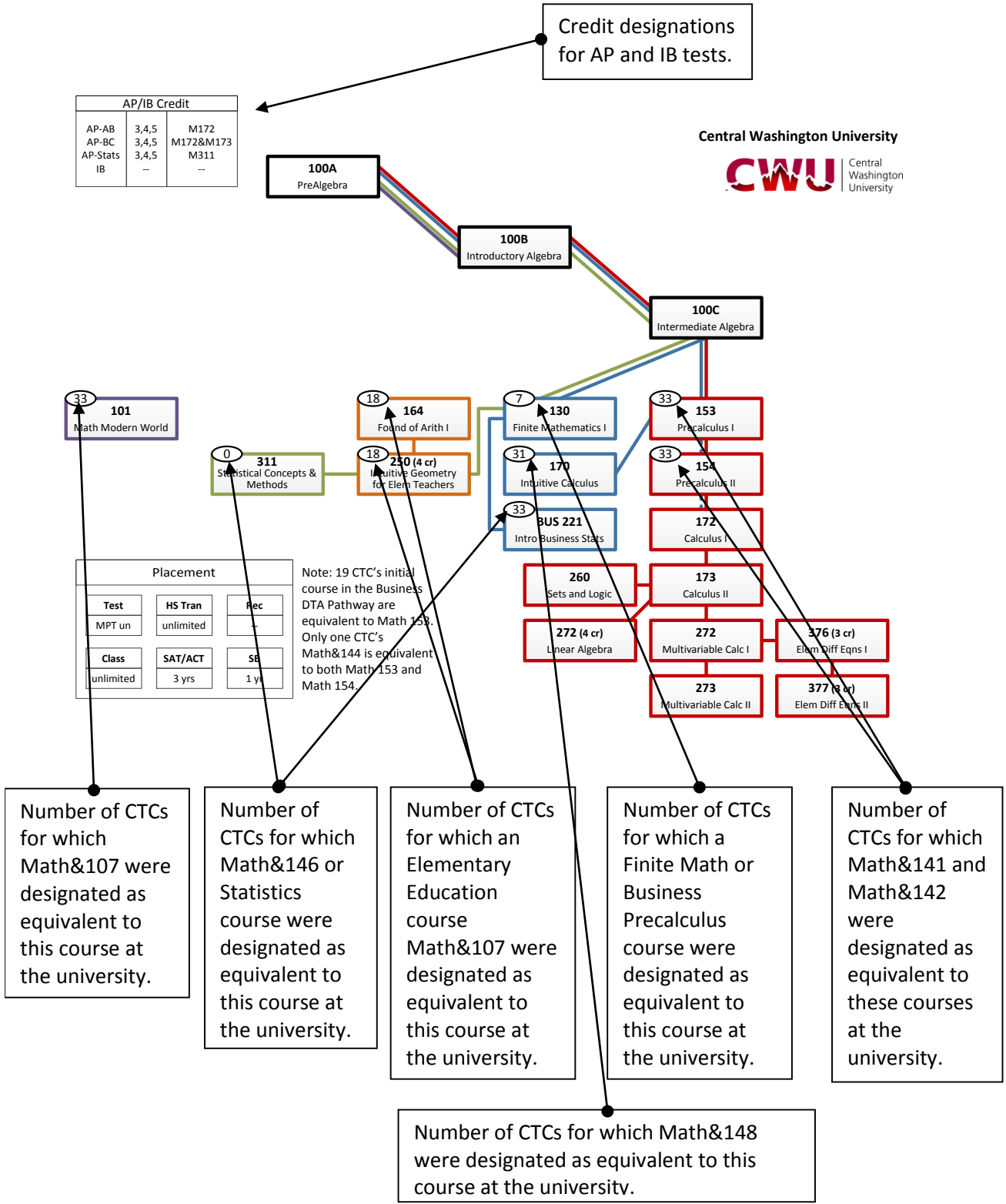
Flowcharts for CTCs



Flowcharts for Universities

Credit designations for AP and IB tests.

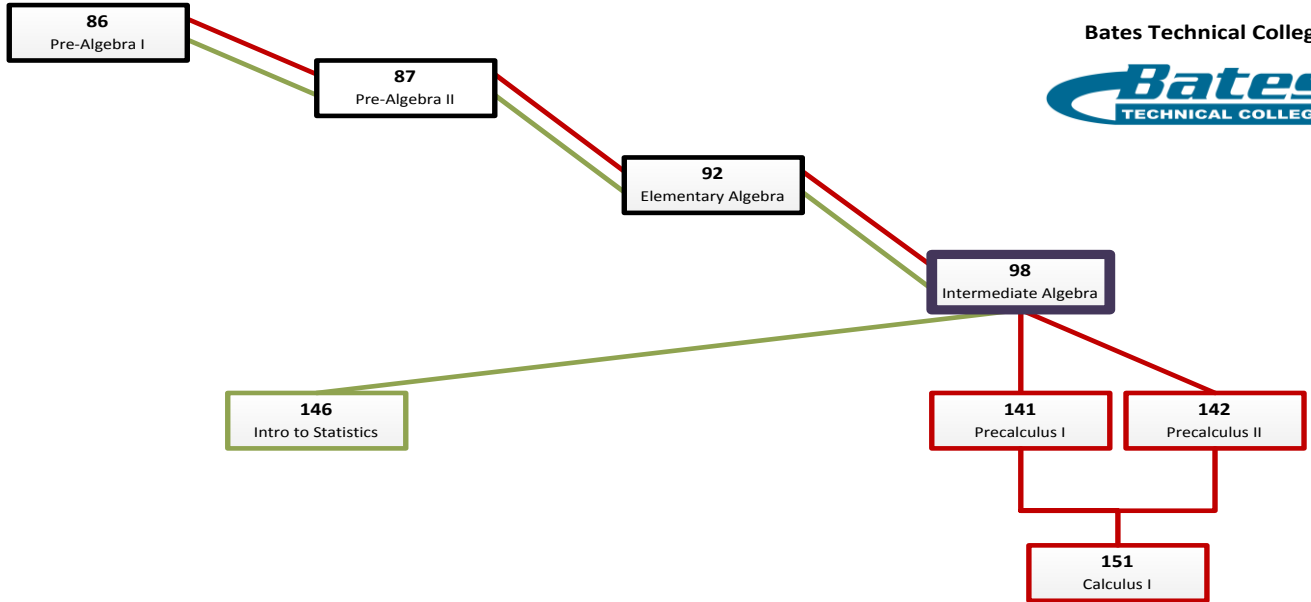
AP/IB Credit		
AP-AB	3,4,5	M172
AP-BC	3,4,5	M172&M173
AP-Stats	3,4,5	M311
IB	--	--



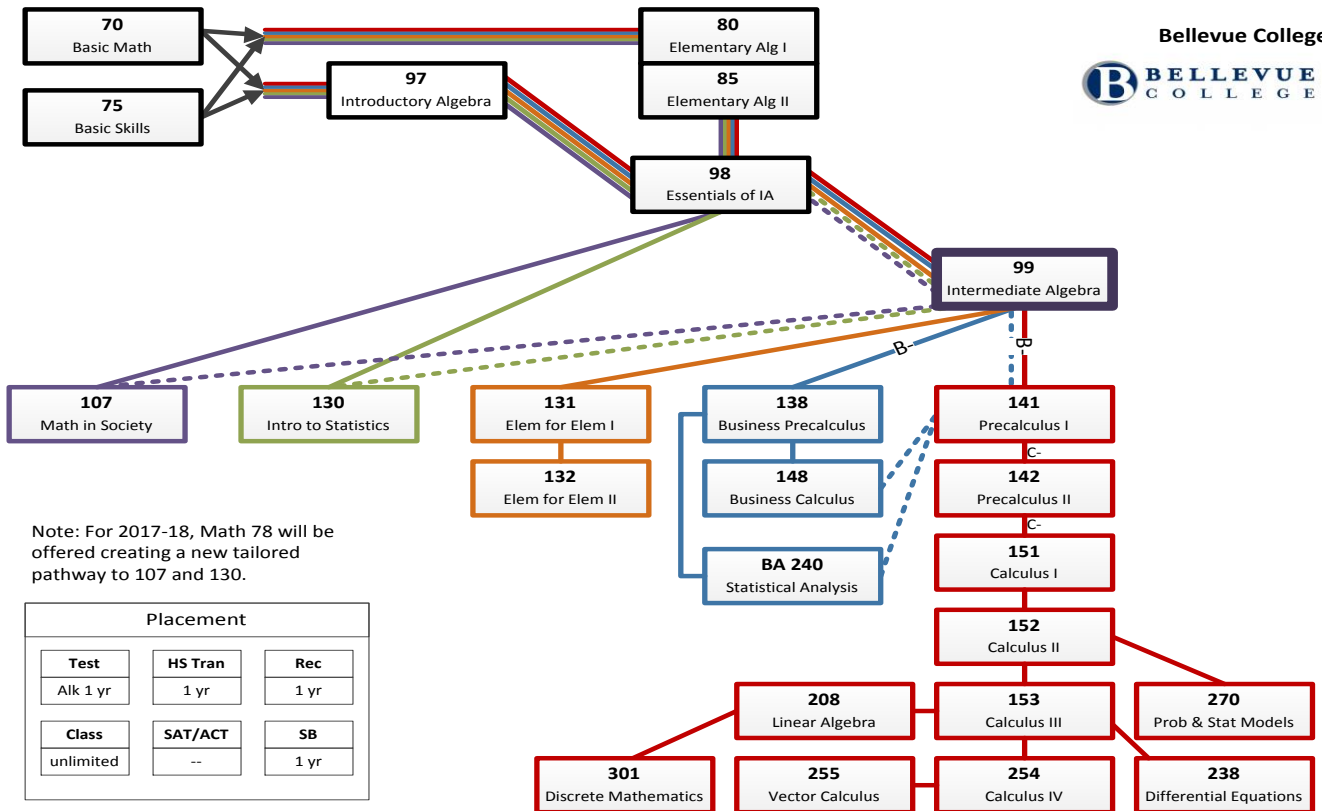
Placement		
Test	HS Tran	Rec
MPT un	unlimited	-
Class	SAT/ACT	SB
unlimited	3 yrs	1 yr

Note: 19 CTC's initial course in the Business DTA Pathway are equivalent to Math 153. Only one CTC's Math&144 is equivalent to both Math 153 and Math 154.

- Number of CTCs for which Math&107 were designated as equivalent to this course at the university.
- Number of CTCs for which Math&146 or Statistics course were designated as equivalent to this course at the university.
- Number of CTCs for which an Elementary Education course Math&107 were designated as equivalent to this course at the university.
- Number of CTCs for which a Finite Math or Business Precalculus course were designated as equivalent to this course at the university.
- Number of CTCs for which Math&141 and Math&142 were designated as equivalent to these courses at the university.
- Number of CTCs for which Math&148 were designated as equivalent to this course at the university.

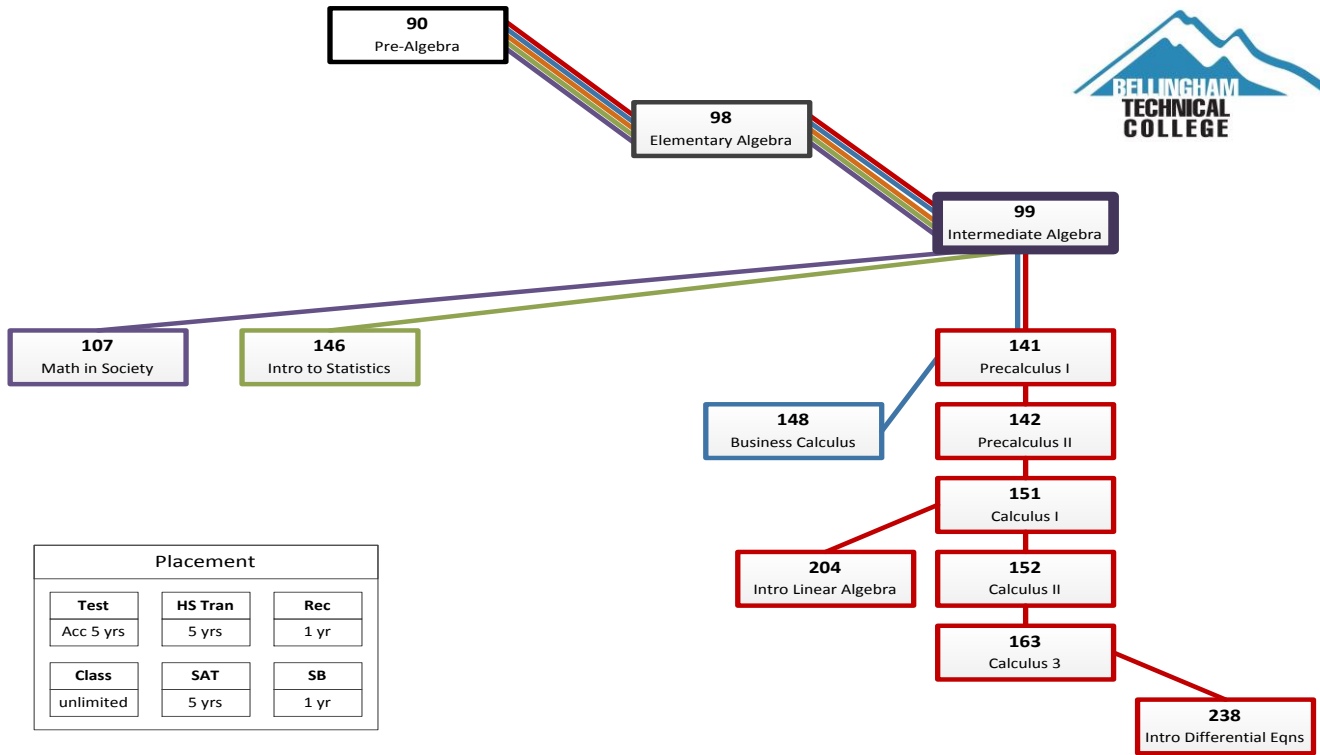


Placement		
Test	HS Tran	Rec
Acc 1 yr	1 yr	1 yr
Class	SAT/ACT	SB
unlimited	--	1 yr

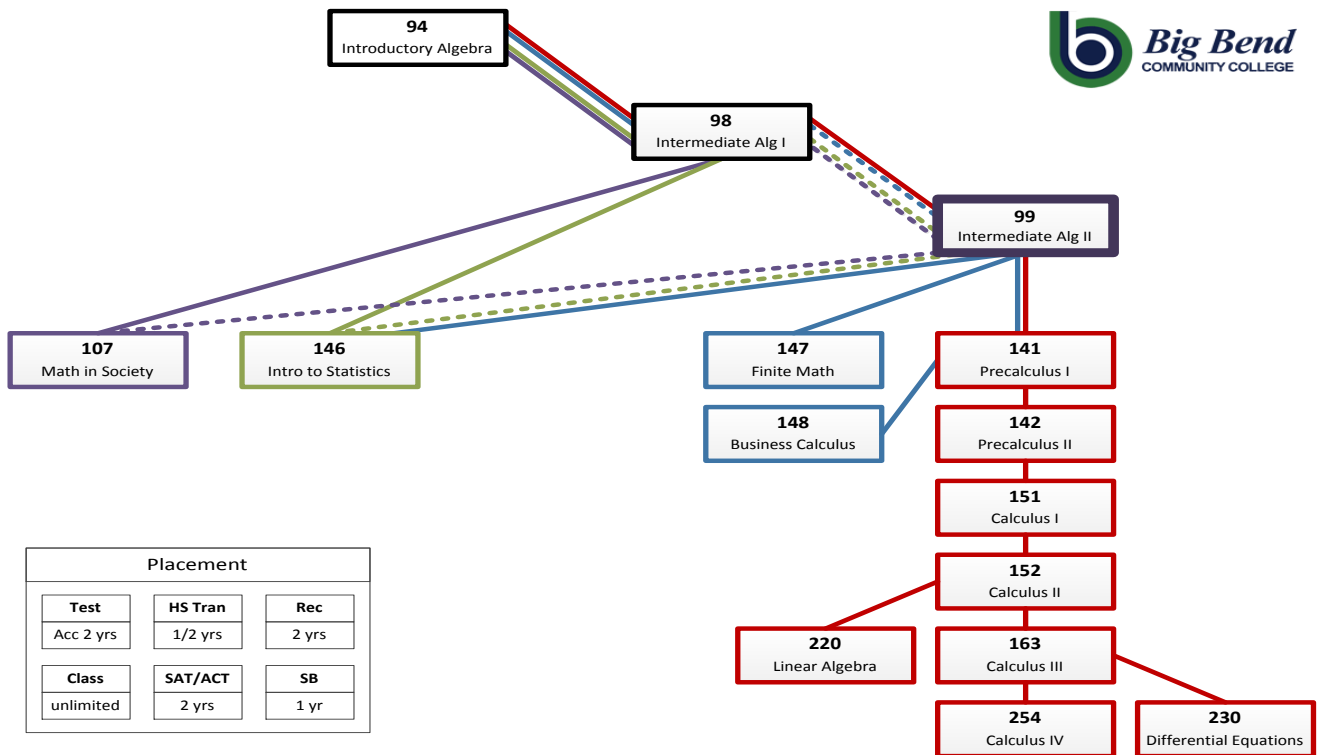


Note: For 2017-18, Math 78 will be offered creating a new tailored pathway to 107 and 130.

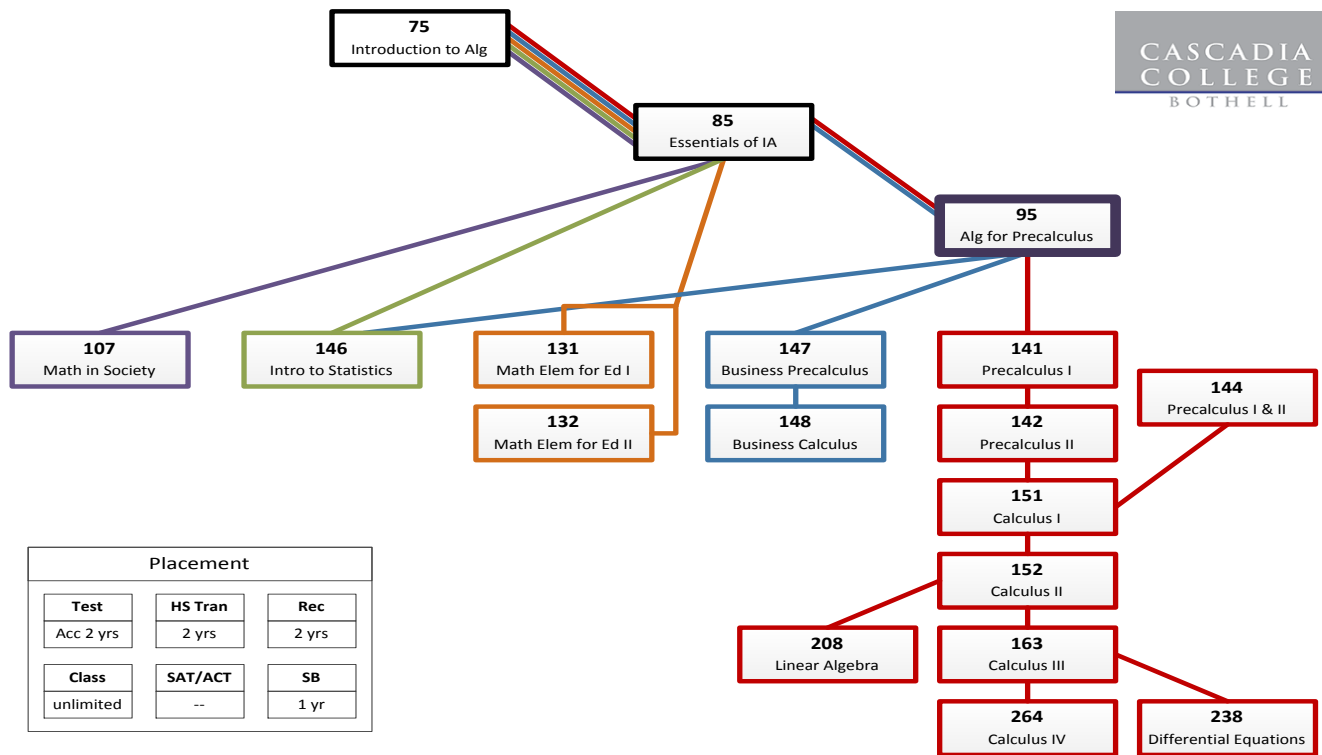
Placement		
Test	HS Tran	Rec
Alk 1 yr	1 yr	1 yr
Class	SAT/ACT	SB
unlimited	--	1 yr



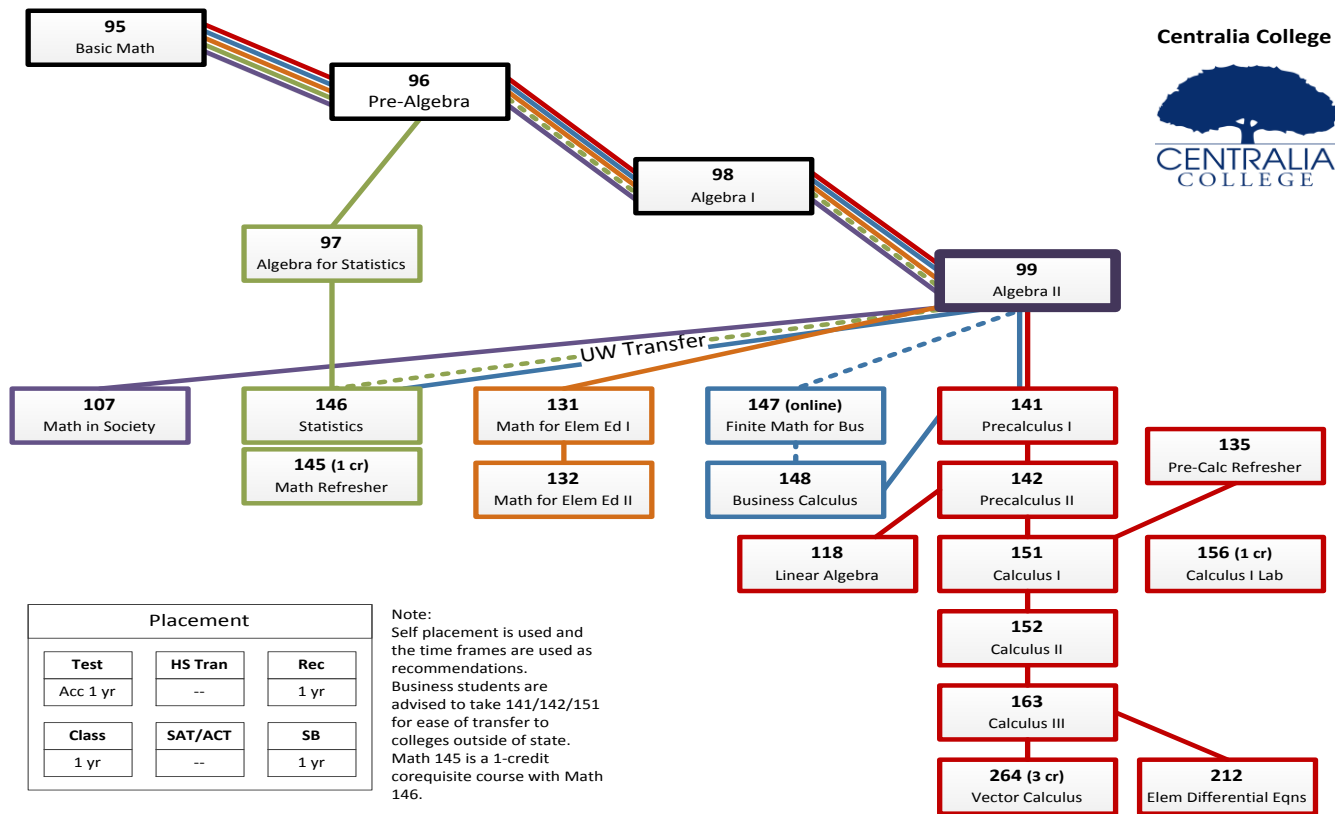
Placement		
Test	HS Tran	Rec
Acc 5 yrs	5 yrs	1 yr
Class	SAT	SB
unlimited	5 yrs	1 yr



Placement		
Test	HS Tran	Rec
Acc 2 yrs	1/2 yrs	2 yrs
Class	SAT/ACT	SB
unlimited	2 yrs	1 yr

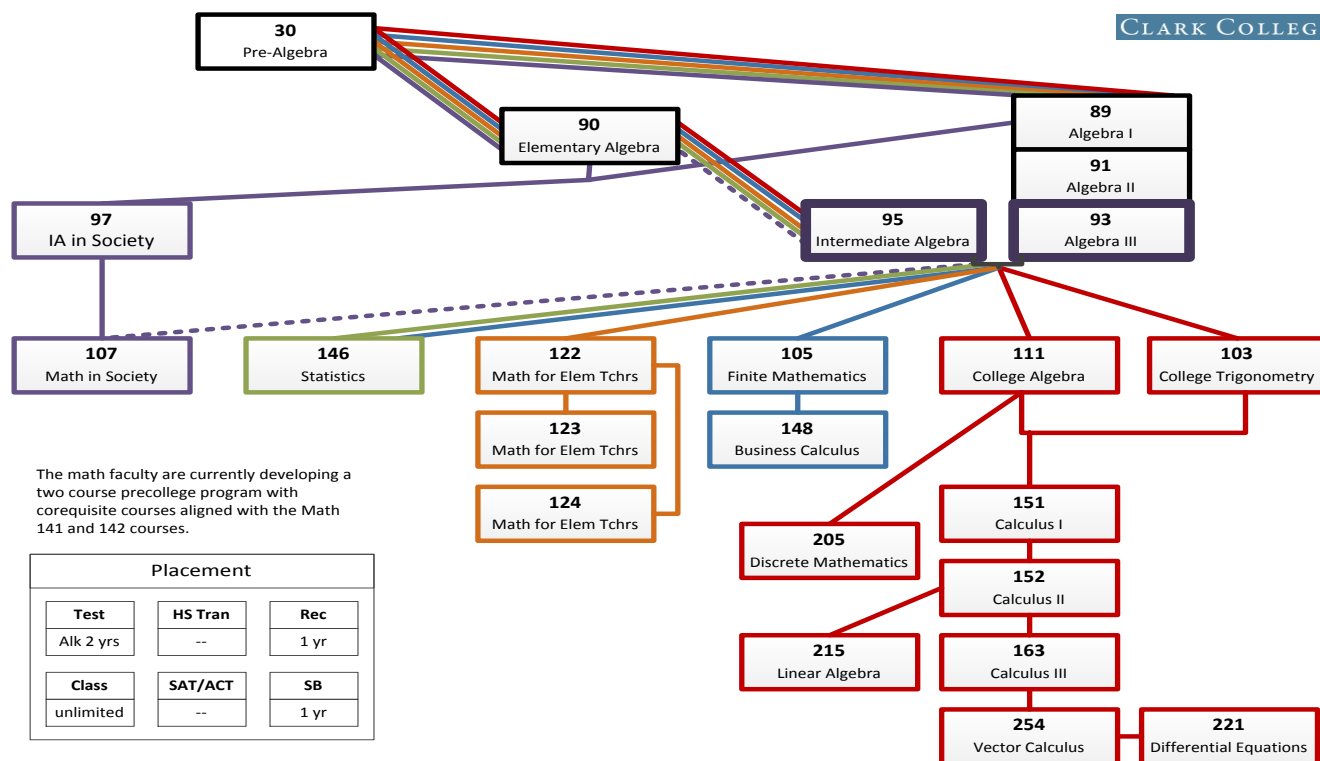


Placement		
Test	HS Tran	Rec
Acc 2 yrs	2 yrs	2 yrs
Class	SAT/ACT	SB
unlimited	--	1 yr

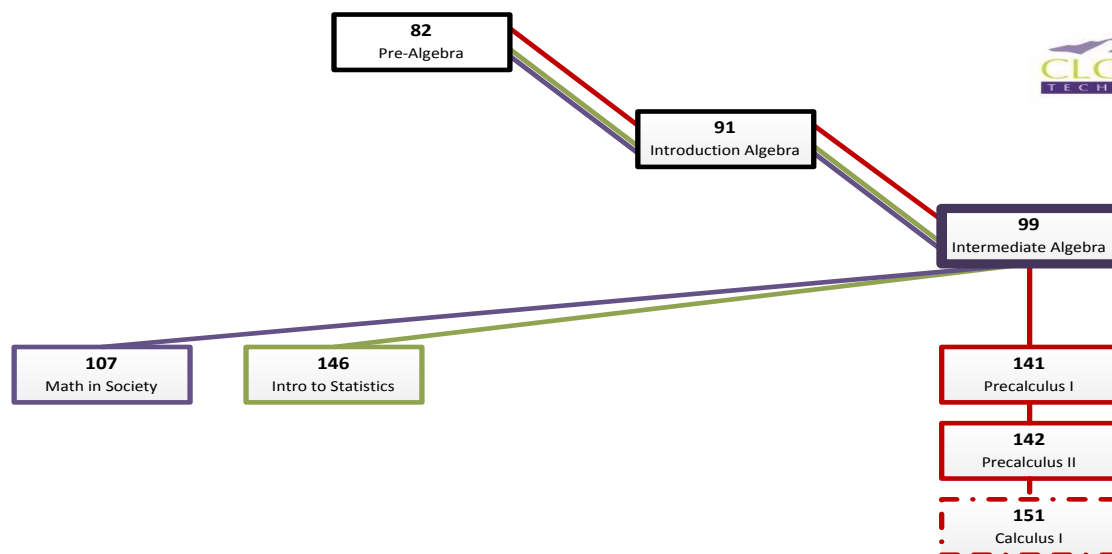


Placement		
Test	HS Tran	Rec
Acc 1 yr	--	1 yr
Class	SAT/ACT	SB
1 yr	--	1 yr

Note:
Self placement is used and the time frames are used as recommendations. Business students are advised to take 141/142/151 for ease of transfer to colleges outside of state. Math 145 is a 1-credit corequisite course with Math 146.

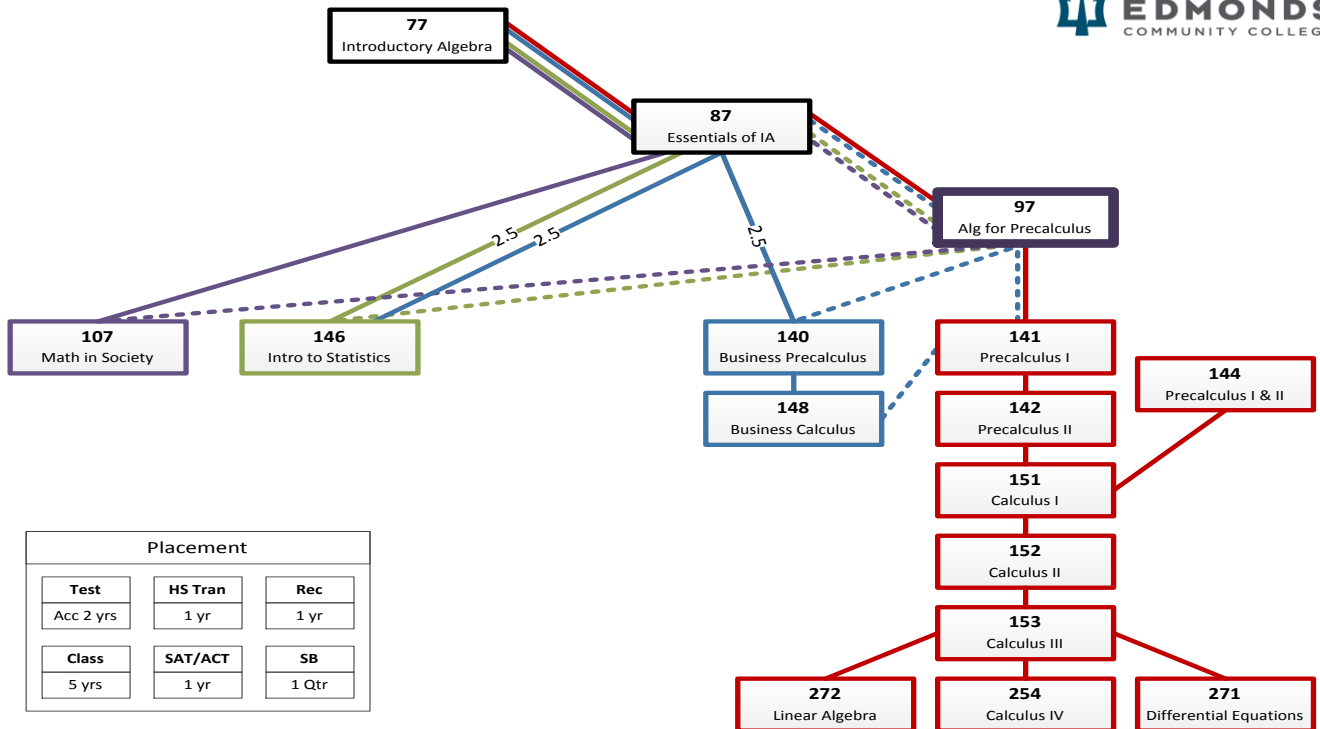
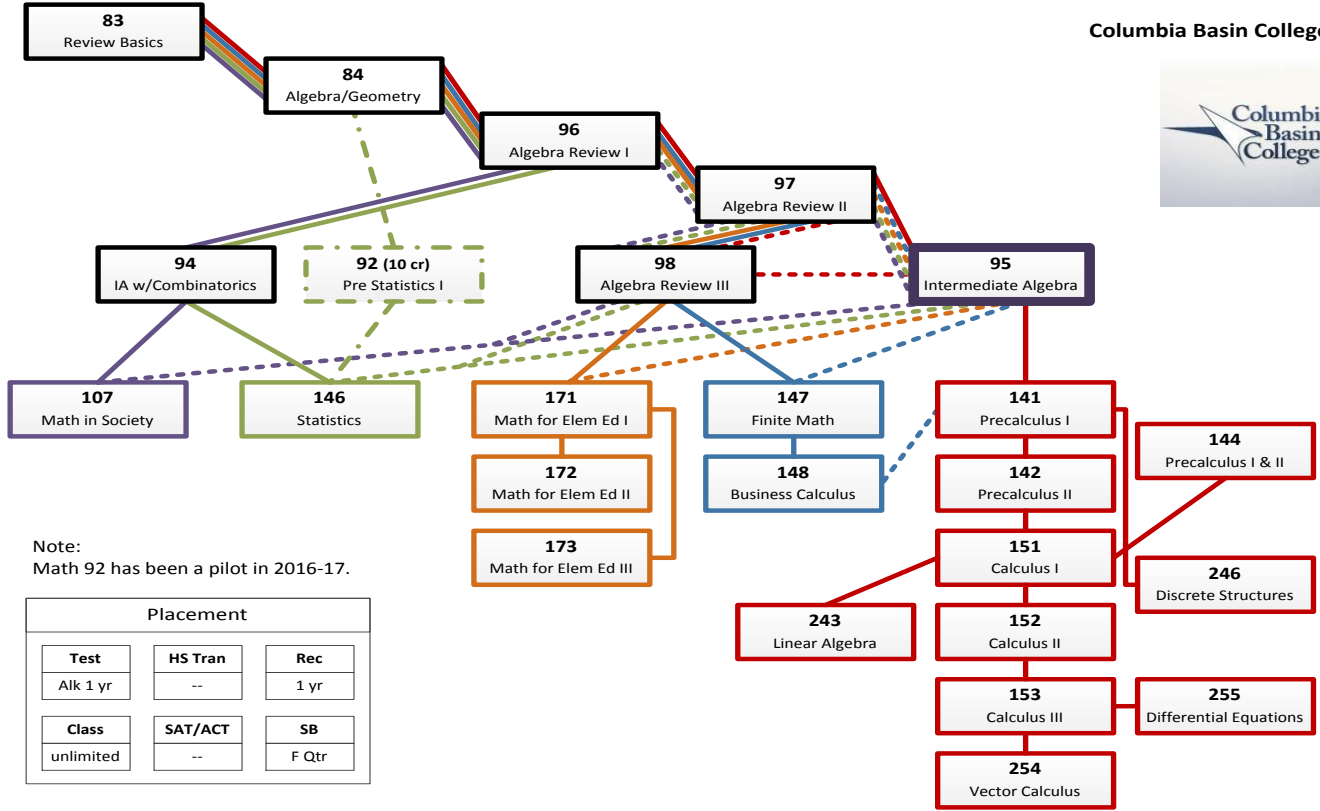


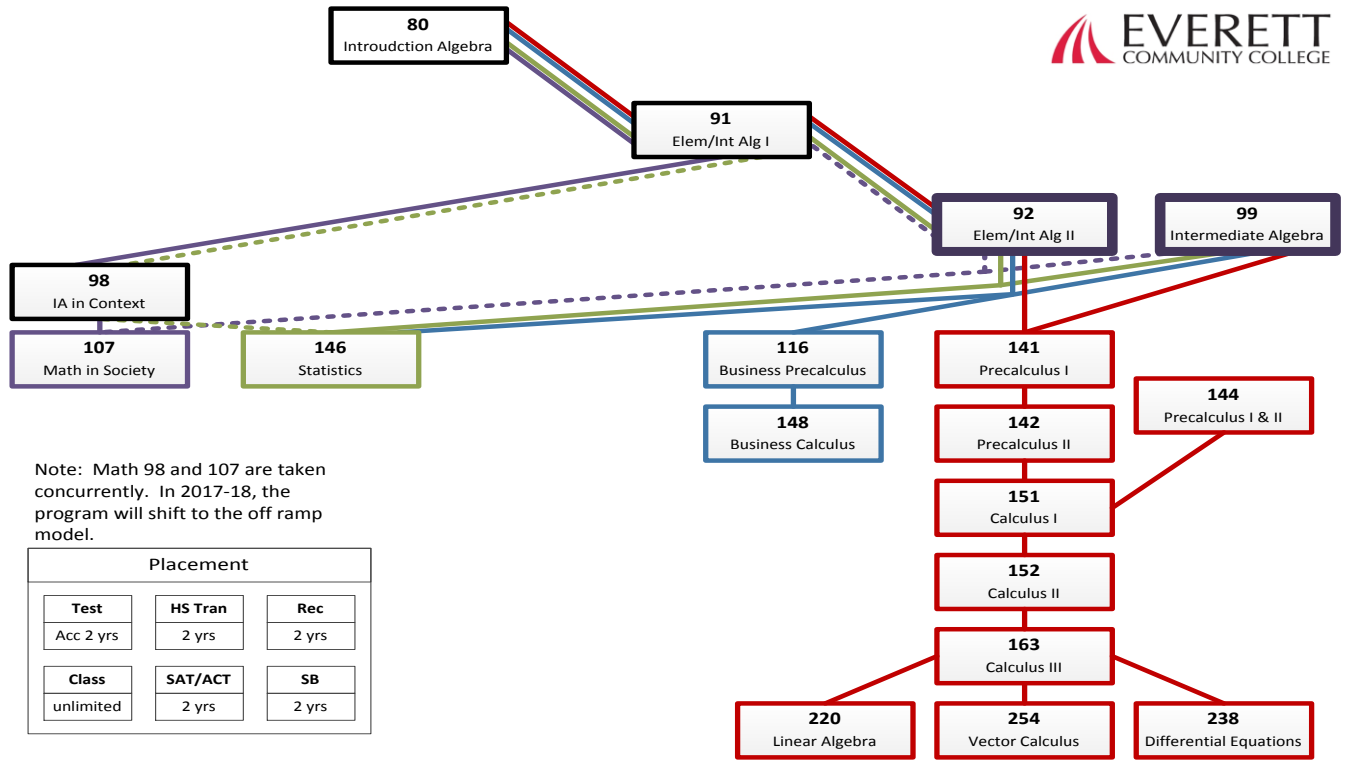
Placement		
Test	HS Tran	Rec
Alk 2 yrs	--	1 yr
Class	SAT/ACT	SB
unlimited	--	1 yr



Placement		
Test	HS Tran	Rec
Acc 2 yrs	--	2 yrs
Class	SAT/ACT	SB
unlimited	--	1 yr

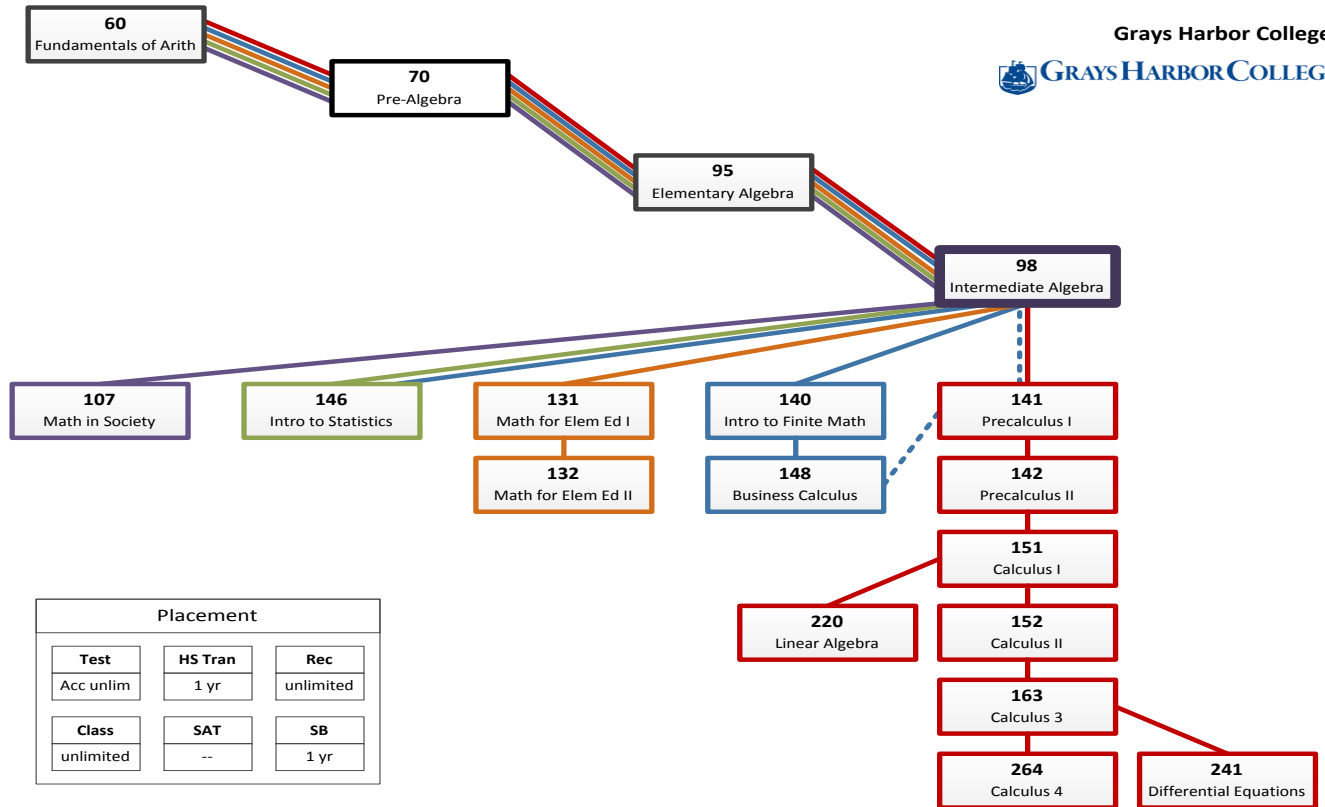
Note: Currently, students are directed to Tacoma or Pierce colleges for Math 151 and higher. In near future, Math 151 will be offered.



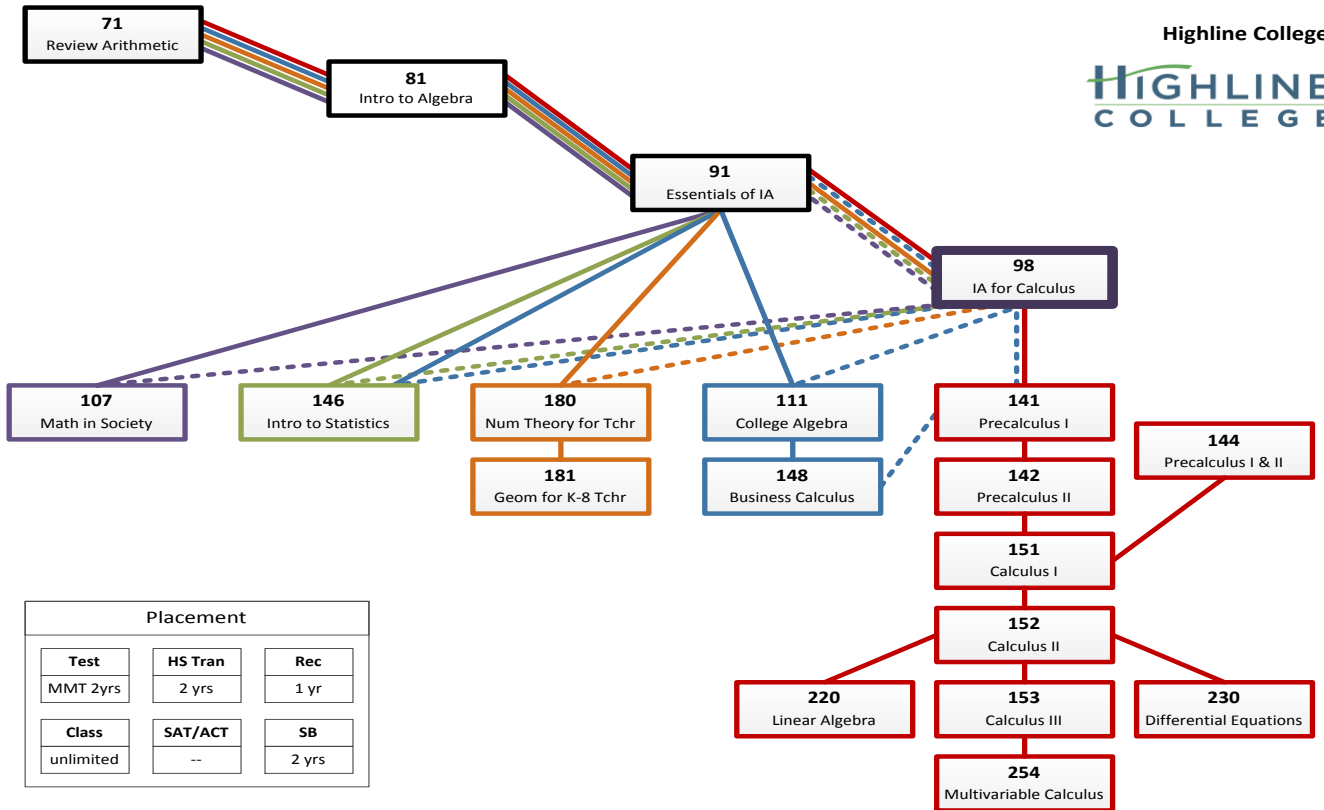
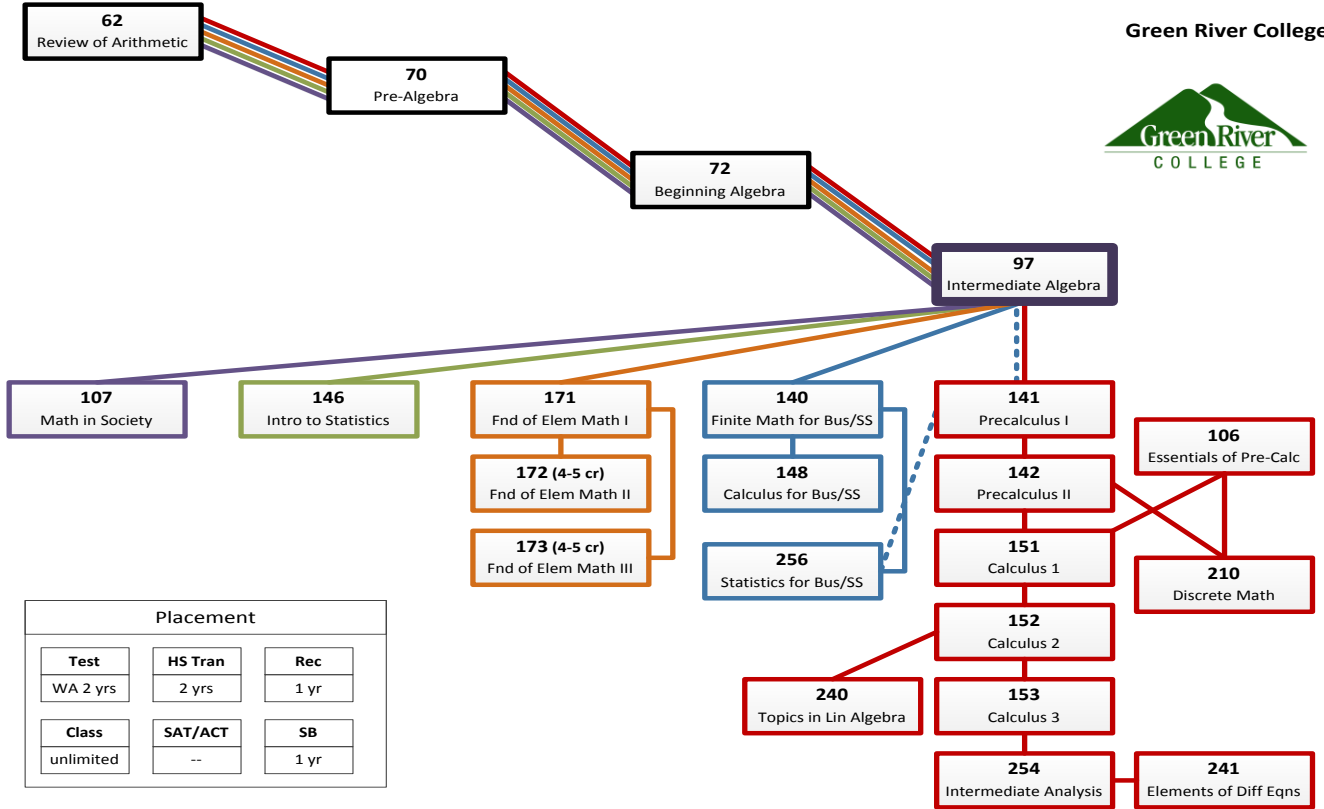


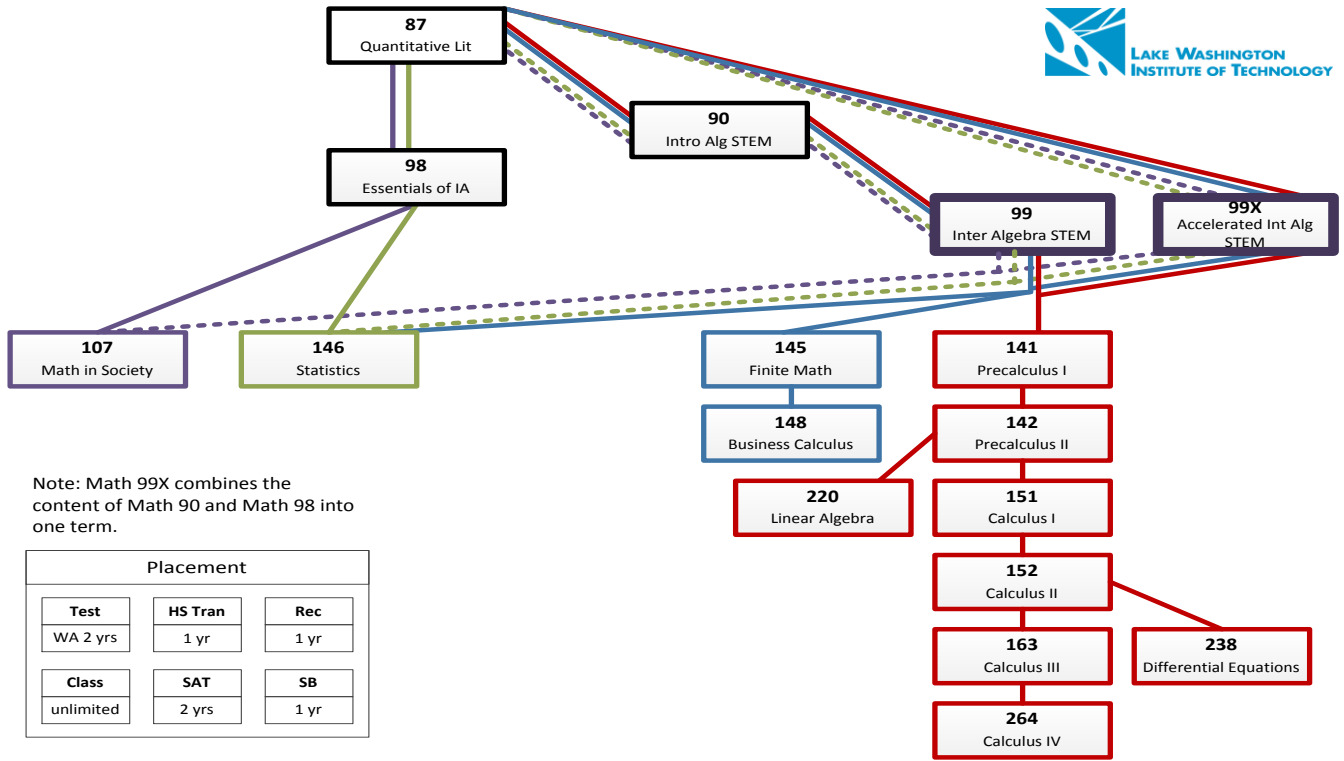
Note: Math 98 and 107 are taken concurrently. In 2017-18, the program will shift to the off ramp model.

Placement		
Test	HS Tran	Rec
Acc 2 yrs	2 yrs	2 yrs
Class	SAT/ACT	SB
unlimited	2 yrs	2 yrs



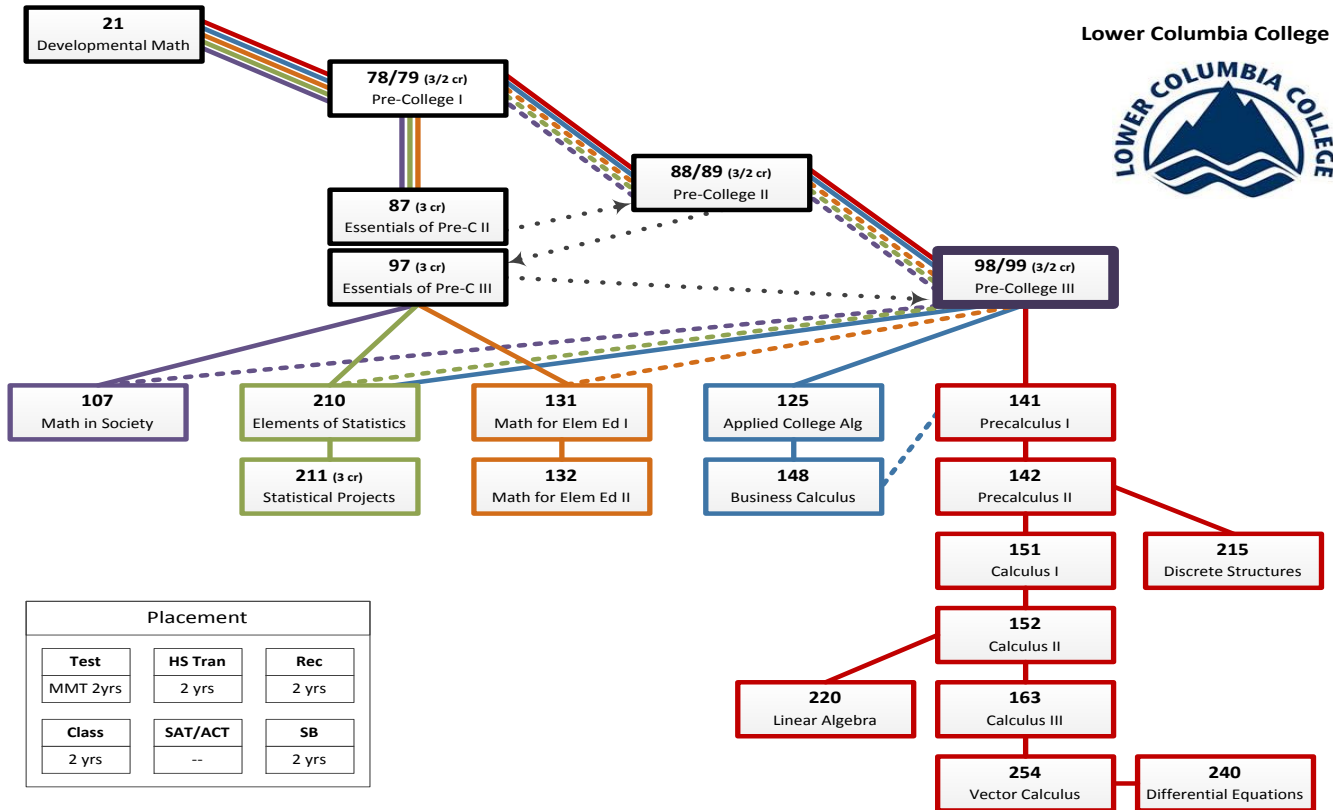
Placement		
Test	HS Tran	Rec
Acc unlim	1 yr	unlimited
Class	SAT	SB
unlimited	--	1 yr



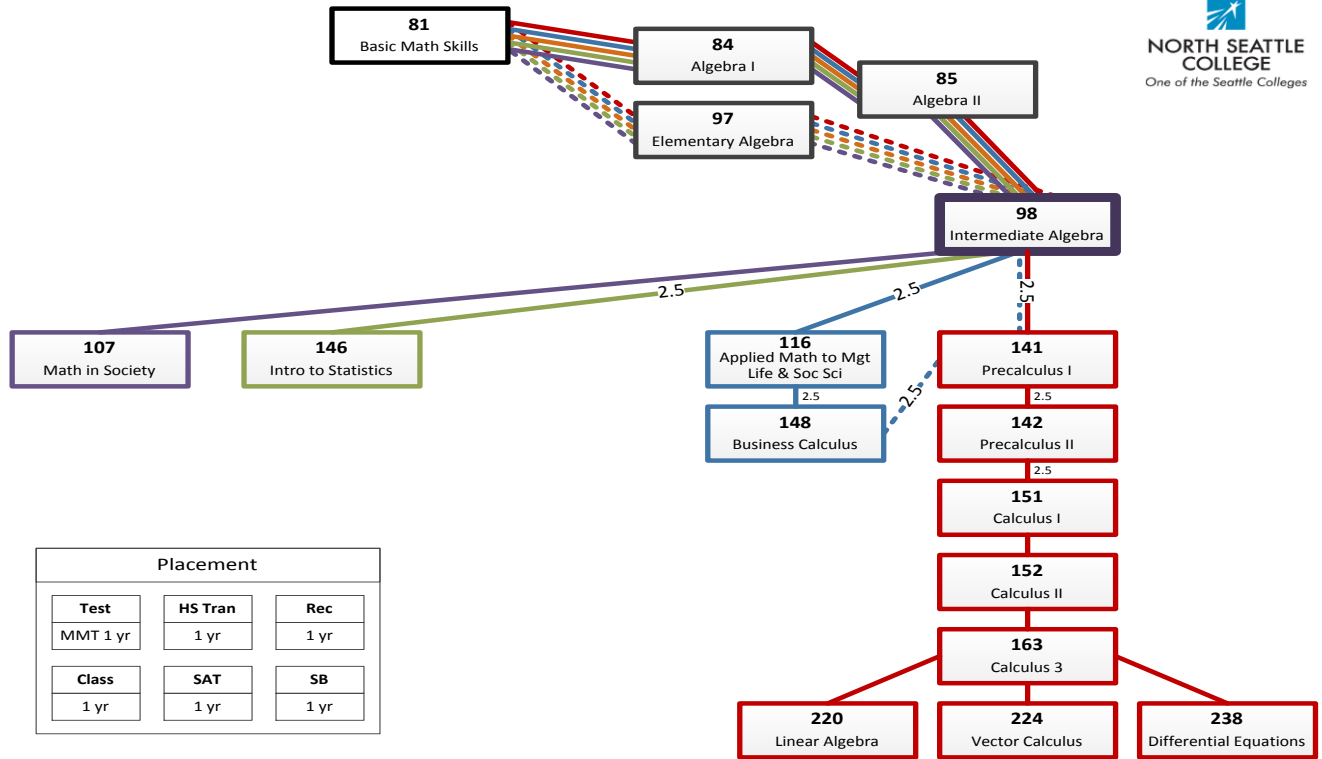


Note: Math 99X combines the content of Math 90 and Math 98 into one term.

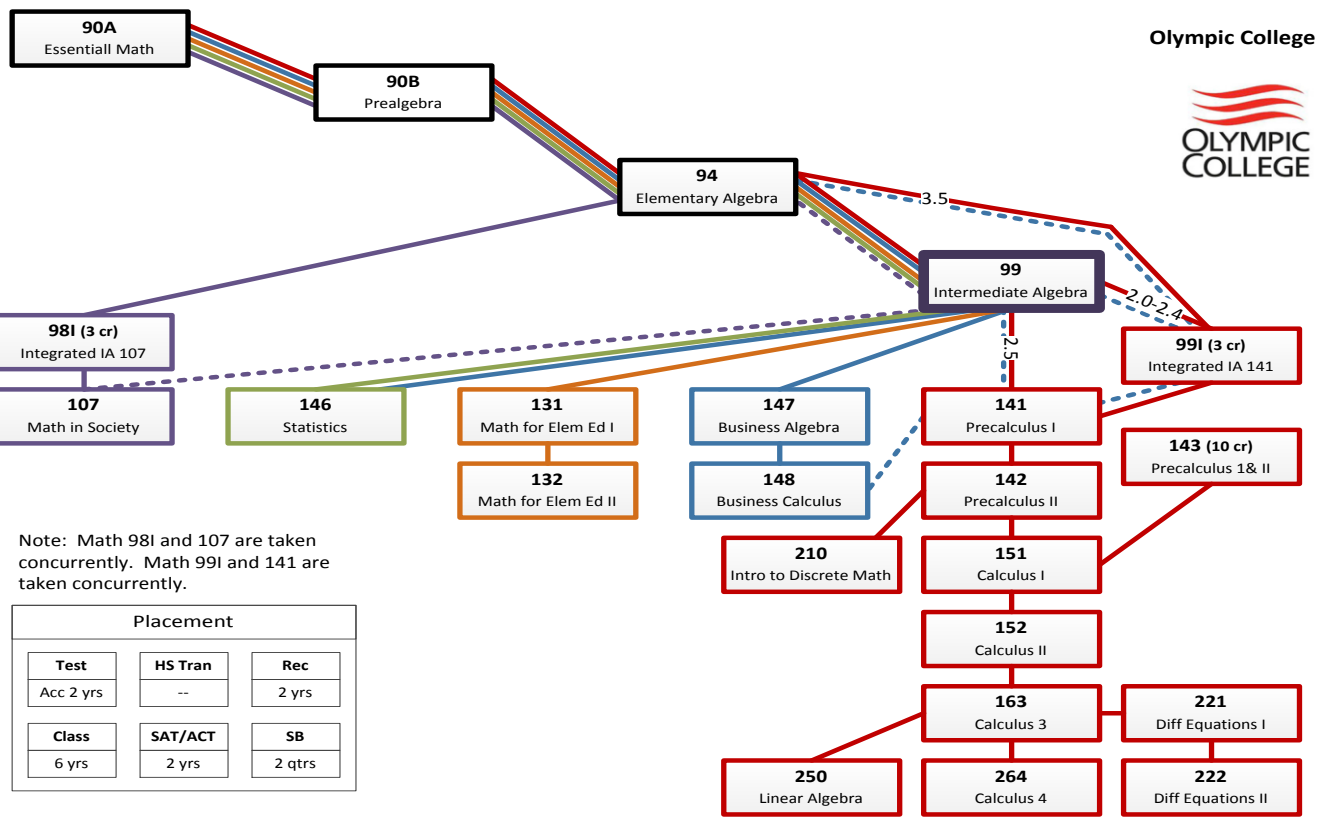
Placement		
Test	HS Tran	Rec
WA 2 yrs	1 yr	1 yr
Class	SAT	SB
unlimited	2 yrs	1 yr



Placement		
Test	HS Tran	Rec
MMT 2yrs	2 yrs	2 yrs
Class	SAT/ACT	SB
2 yrs	--	2 yrs

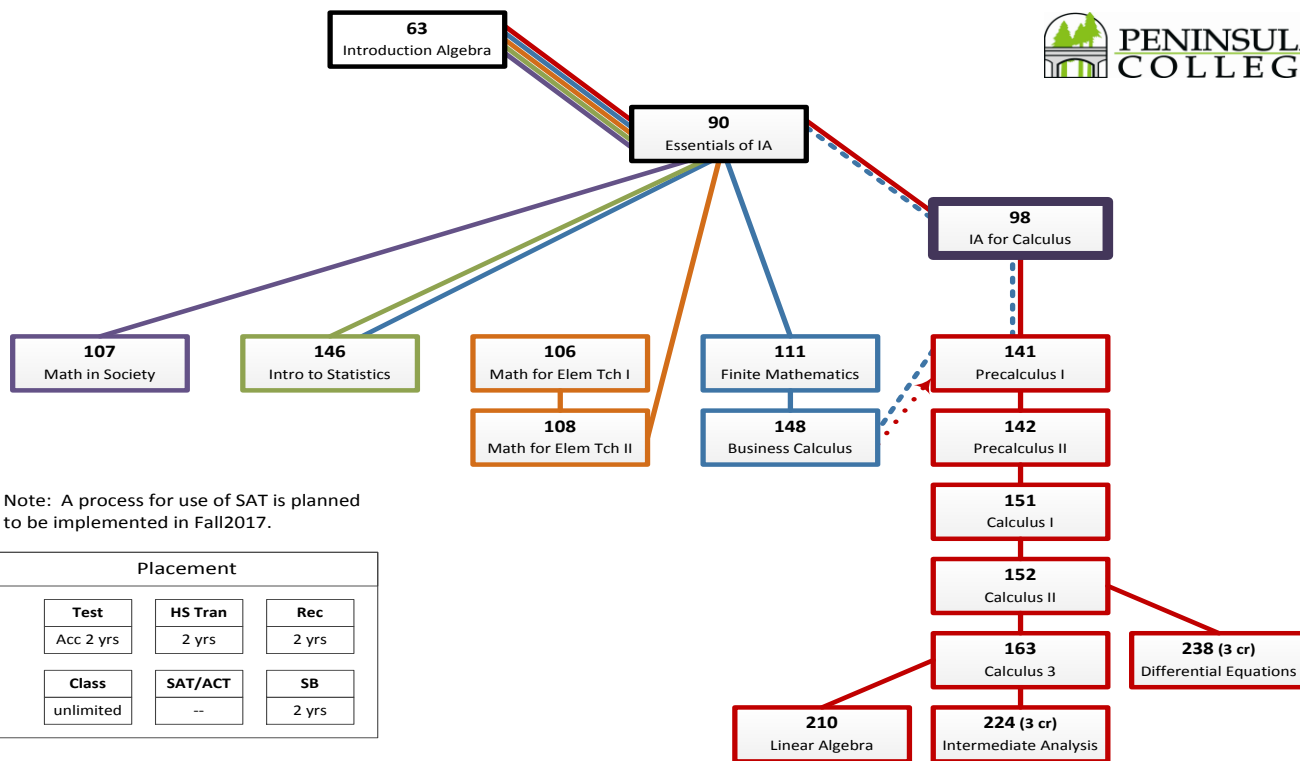


Placement		
Test	HS Tran	Rec
MMT 1 yr	1 yr	1 yr
Class	SAT	SB
1 yr	1 yr	1 yr



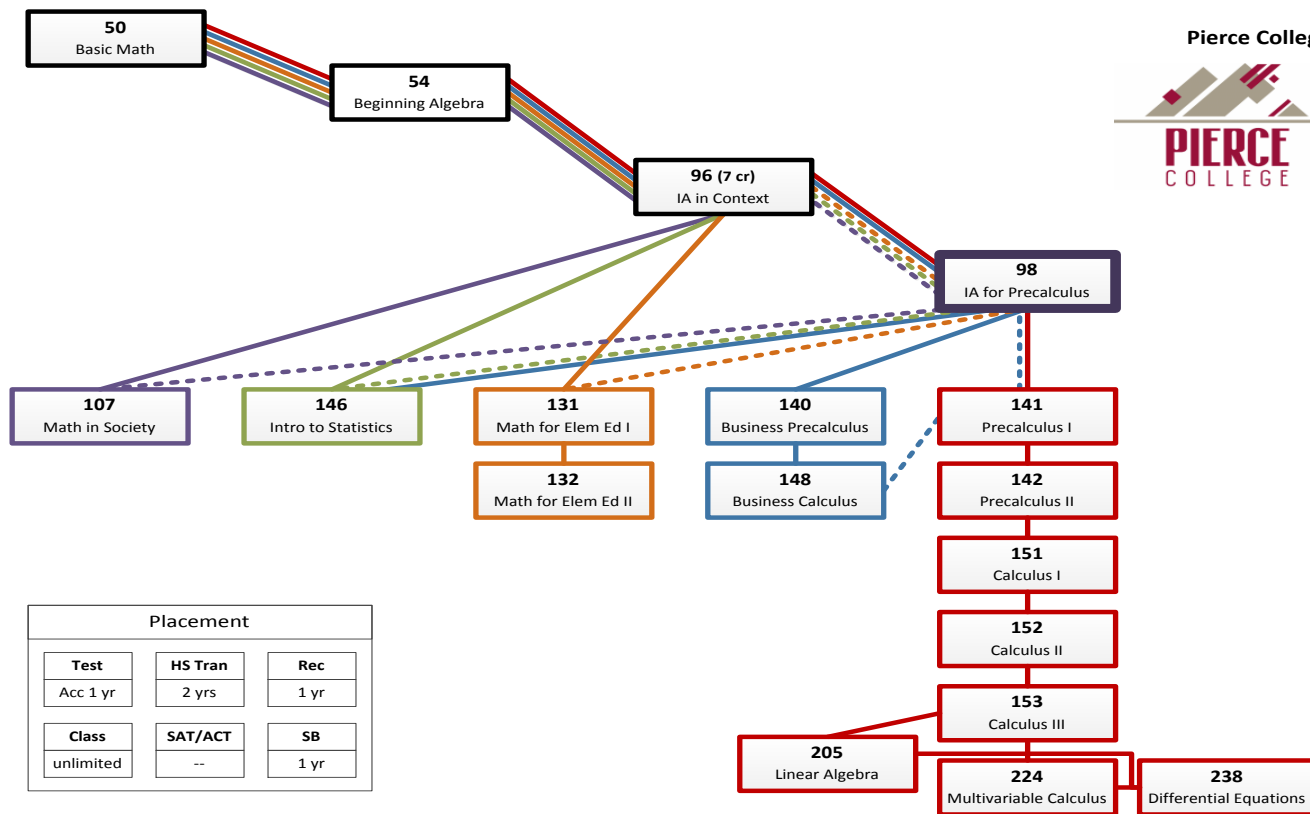
Note: Math 98I and 107 are taken concurrently. Math 99I and 141 are taken concurrently.

Placement		
Test	HS Tran	Rec
Acc 2 yrs	--	2 yrs
Class	SAT/ACT	SB
6 yrs	2 yrs	2 qtrs

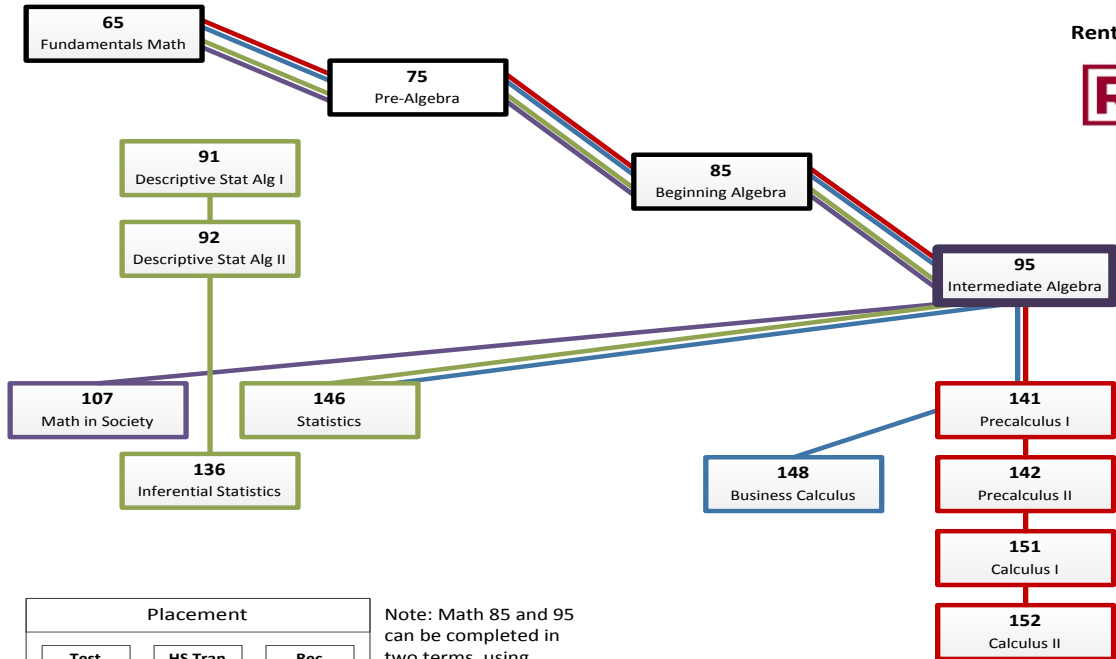


Note: A process for use of SAT is planned to be implemented in Fall2017.

Placement		
Test	HS Tran	Rec
Acc 2 yrs	2 yrs	2 yrs
Class	SAT/ACT	SB
unlimited	--	2 yrs

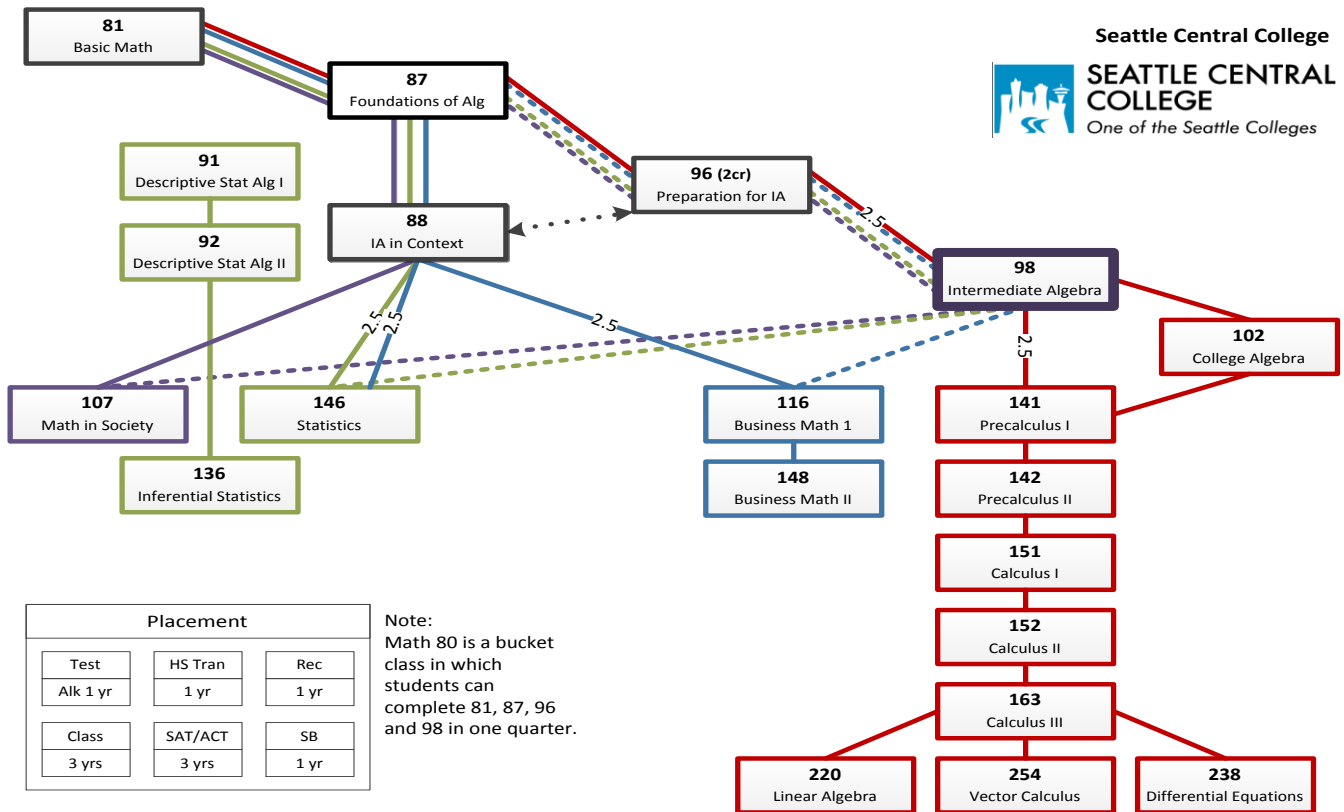


Placement		
Test	HS Tran	Rec
Acc 1 yr	2 yrs	1 yr
Class	SAT/ACT	SB
unlimited	--	1 yr



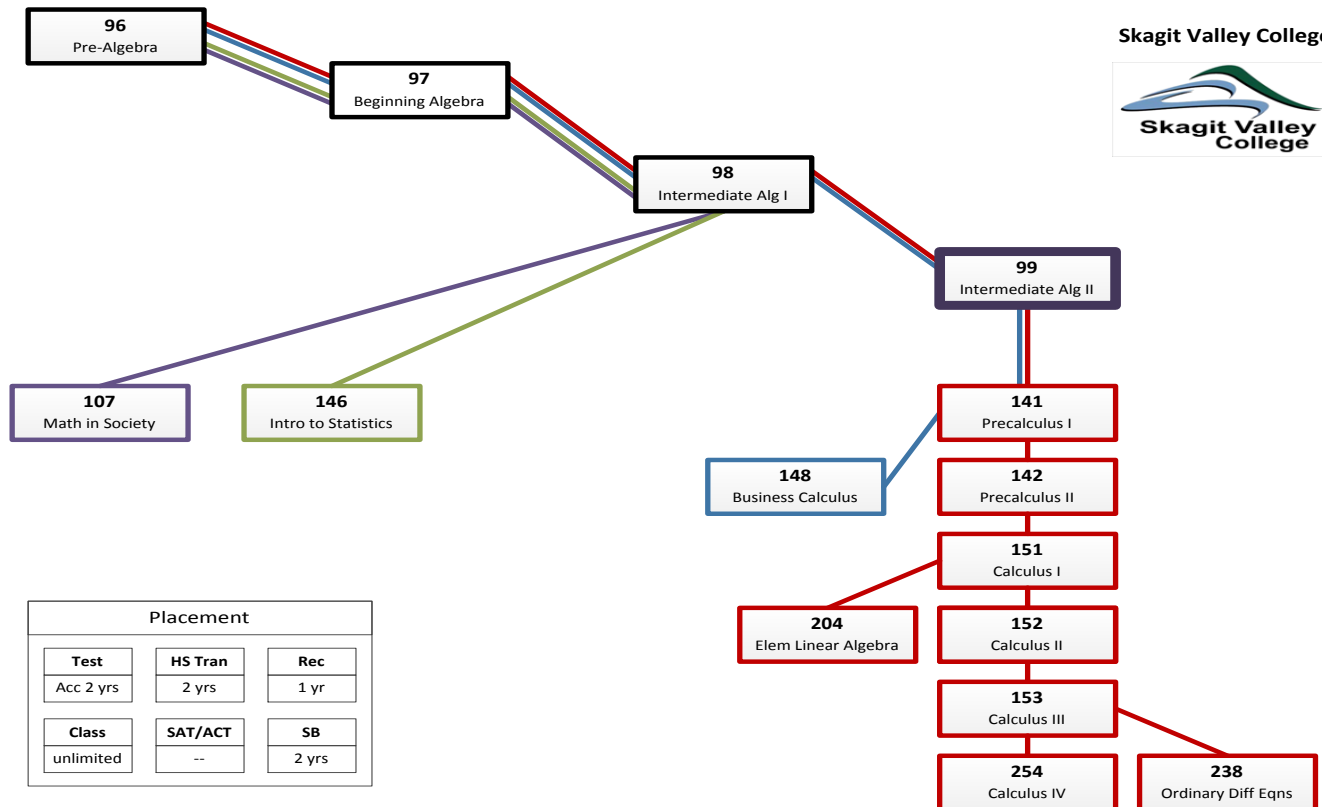
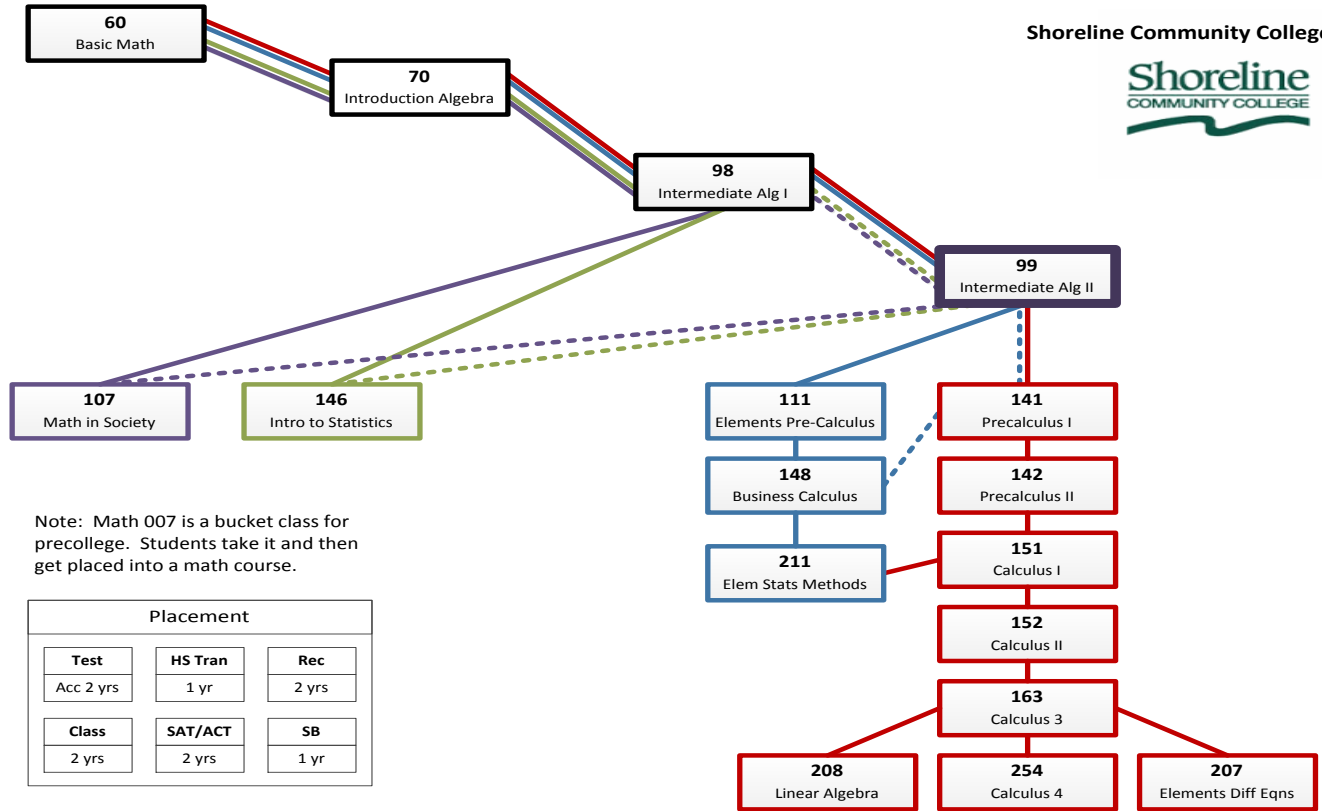
Placement		
Test	HS Tran	Rec
Acc 1 yr	1 yr	1 yr
Class	SAT/ACT	SB
unlimited	--	1 yr

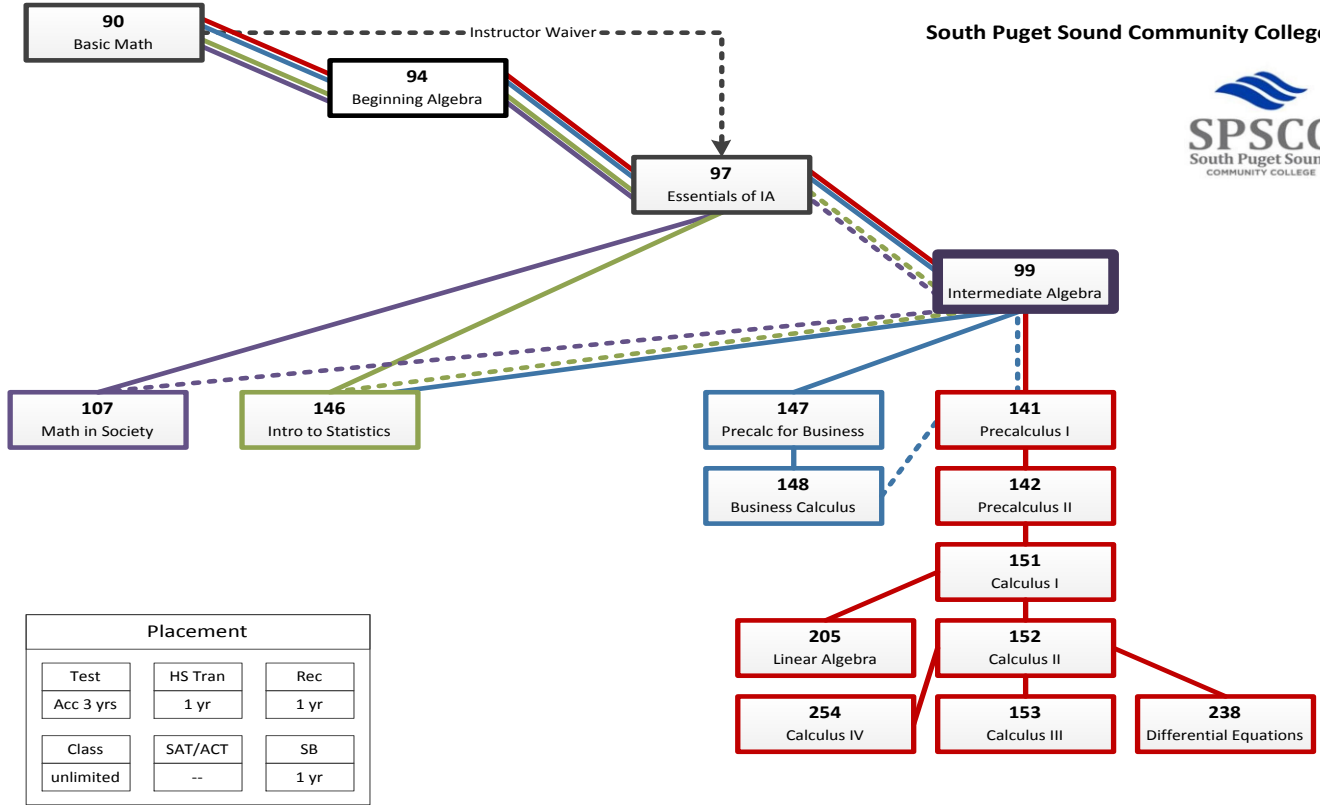
Note: Math 85 and 95 can be completed in two terms, using variable credit. Accuplacer is used for college level and directed self placement for precollege.



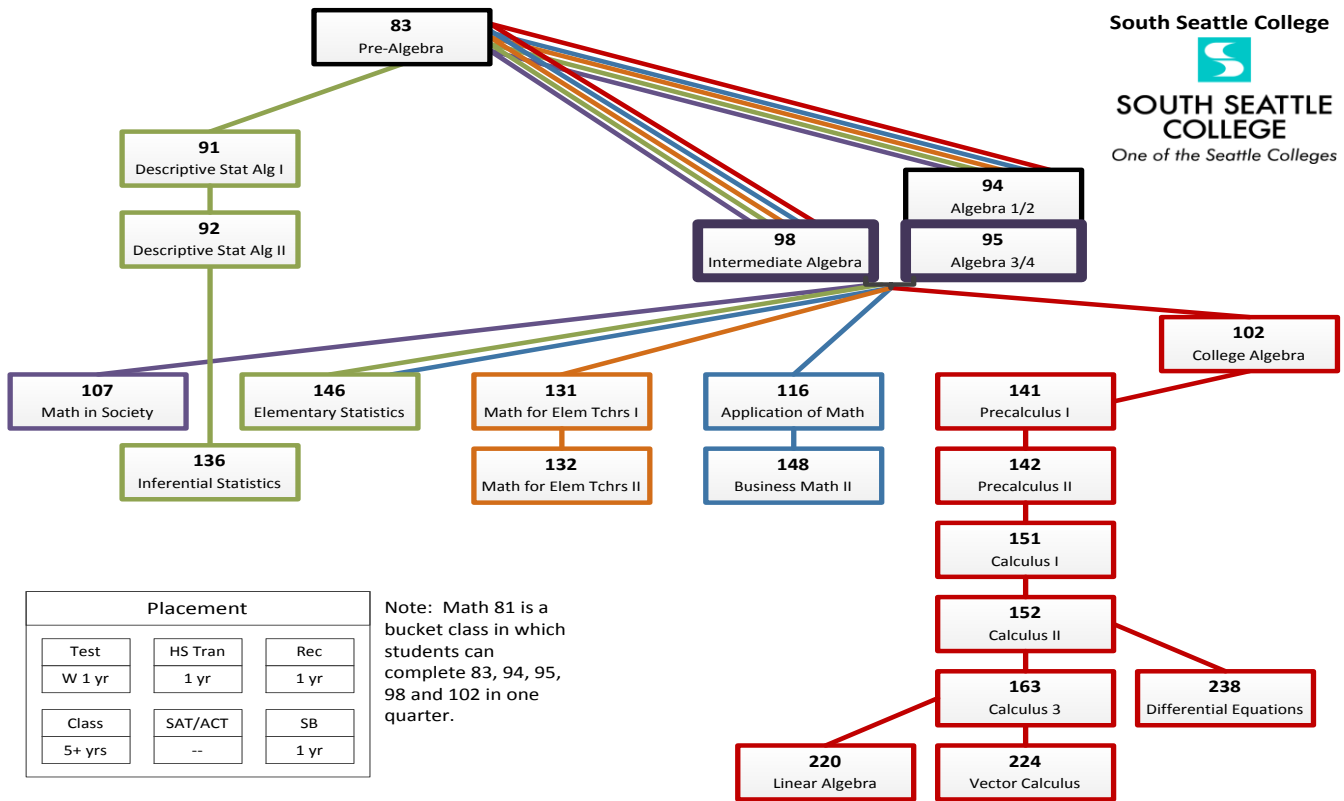
Placement		
Test	HS Tran	Rec
Alk 1 yr	1 yr	1 yr
Class	SAT/ACT	SB
3 yrs	3 yrs	1 yr

Note: Math 80 is a bucket class in which students can complete 81, 87, 96 and 98 in one quarter.





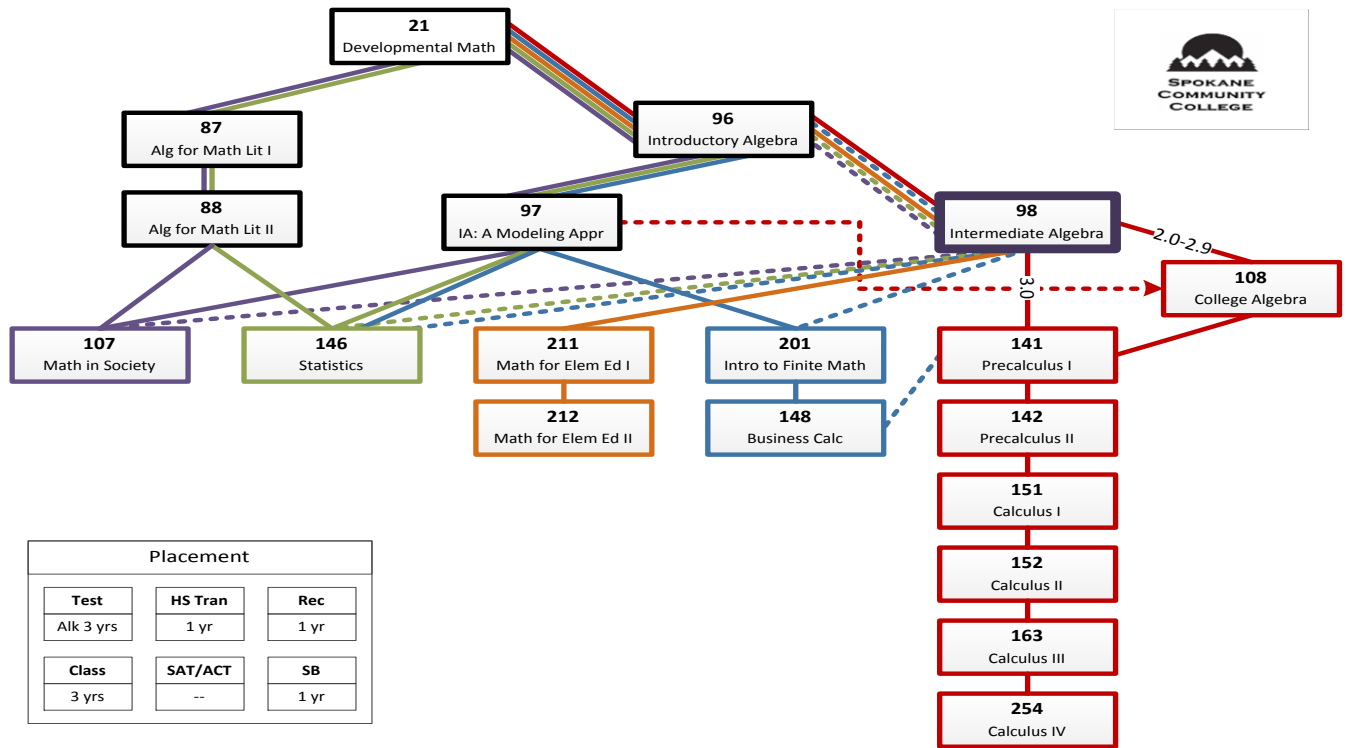
Placement		
Test	HS Tran	Rec
Acc 3 yrs	1 yr	1 yr
Class	SAT/ACT	SB
unlimited	--	1 yr



Placement		
Test	HS Tran	Rec
W 1 yr	1 yr	1 yr
Class	SAT/ACT	SB
5+ yrs	--	1 yr

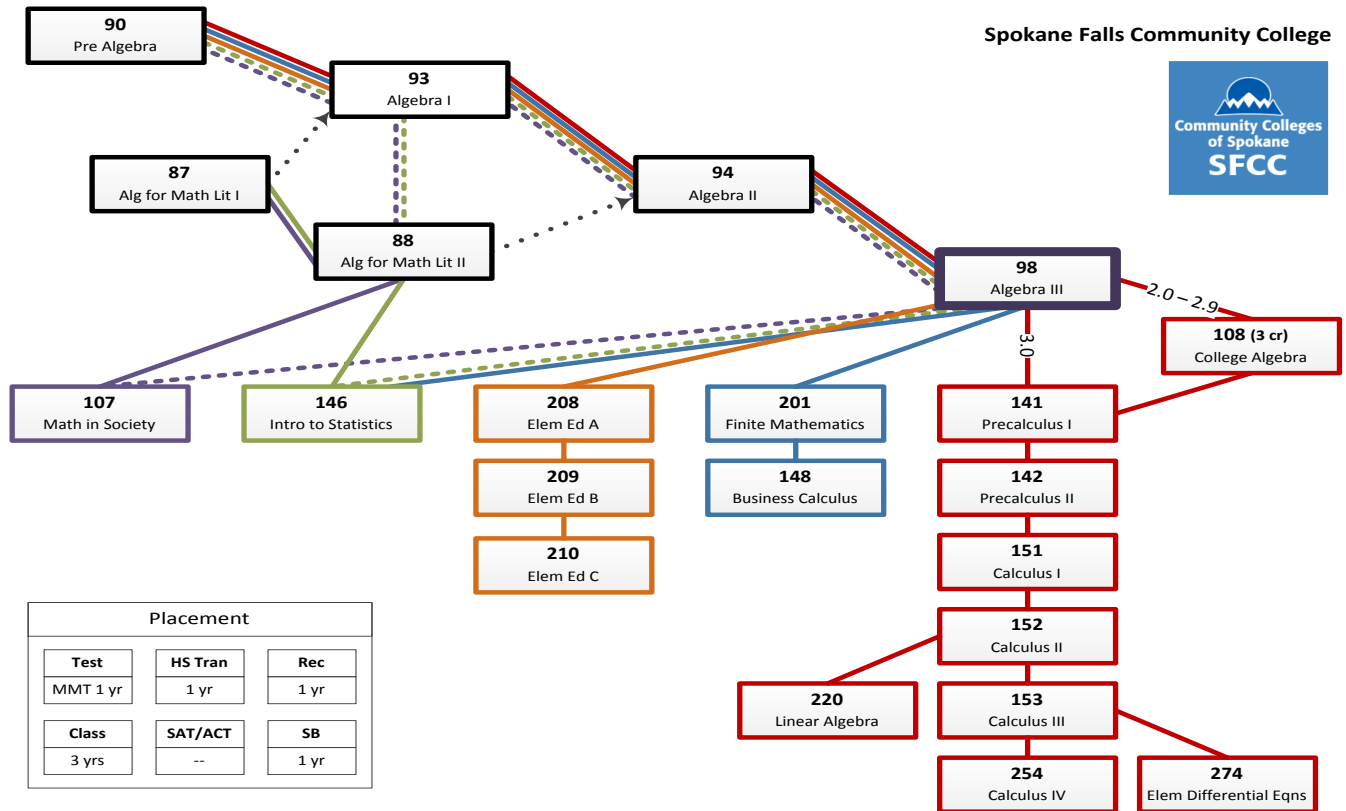
Note: Math 81 is a bucket class in which students can complete 83, 94, 95, 98 and 102 in one quarter.

Spokane Community College

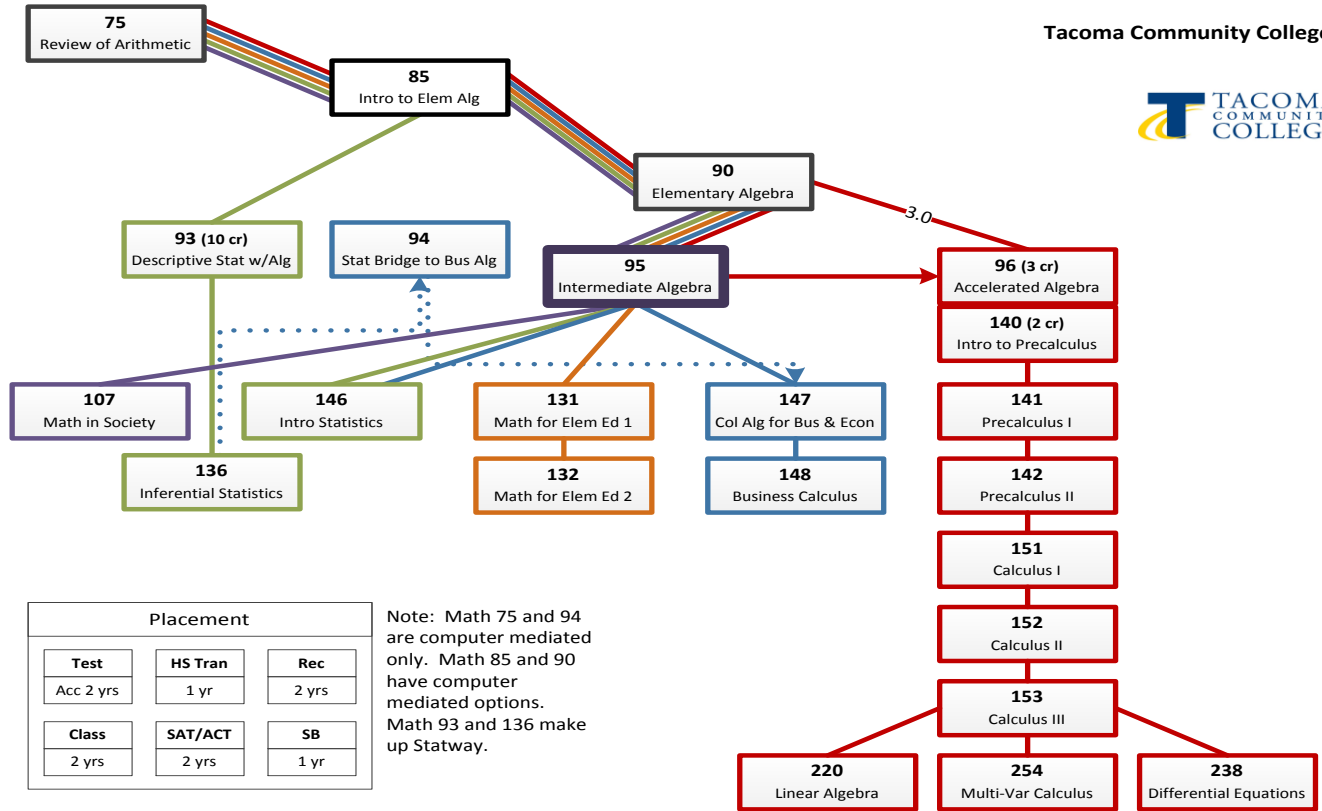


Placement		
Test	HS Tran	Rec
Alk 3 yrs	1 yr	1 yr
Class	SAT/ACT	SB
3 yrs	--	1 yr

Spokane Falls Community College

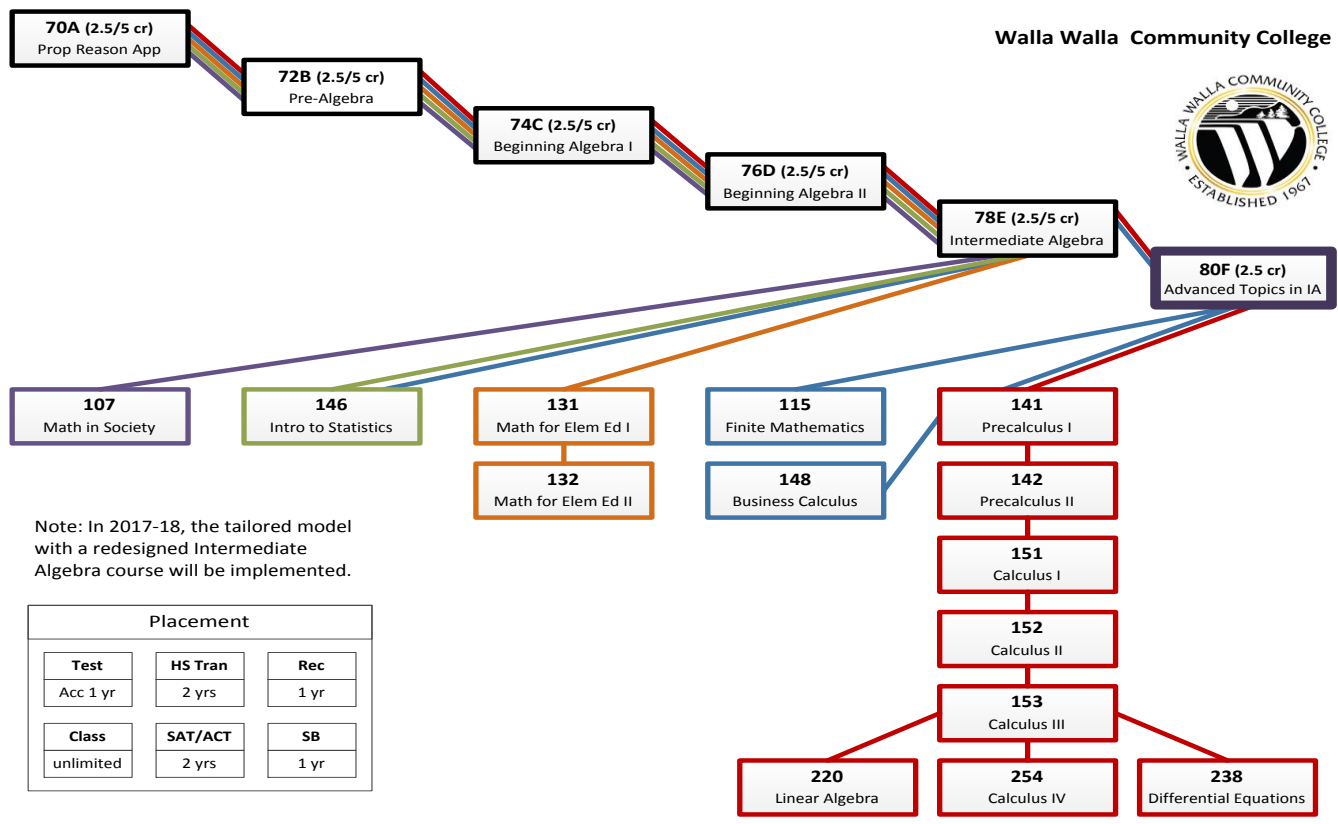


Placement		
Test	HS Tran	Rec
MMT 1 yr	1 yr	1 yr
Class	SAT/ACT	SB
3 yrs	--	1 yr



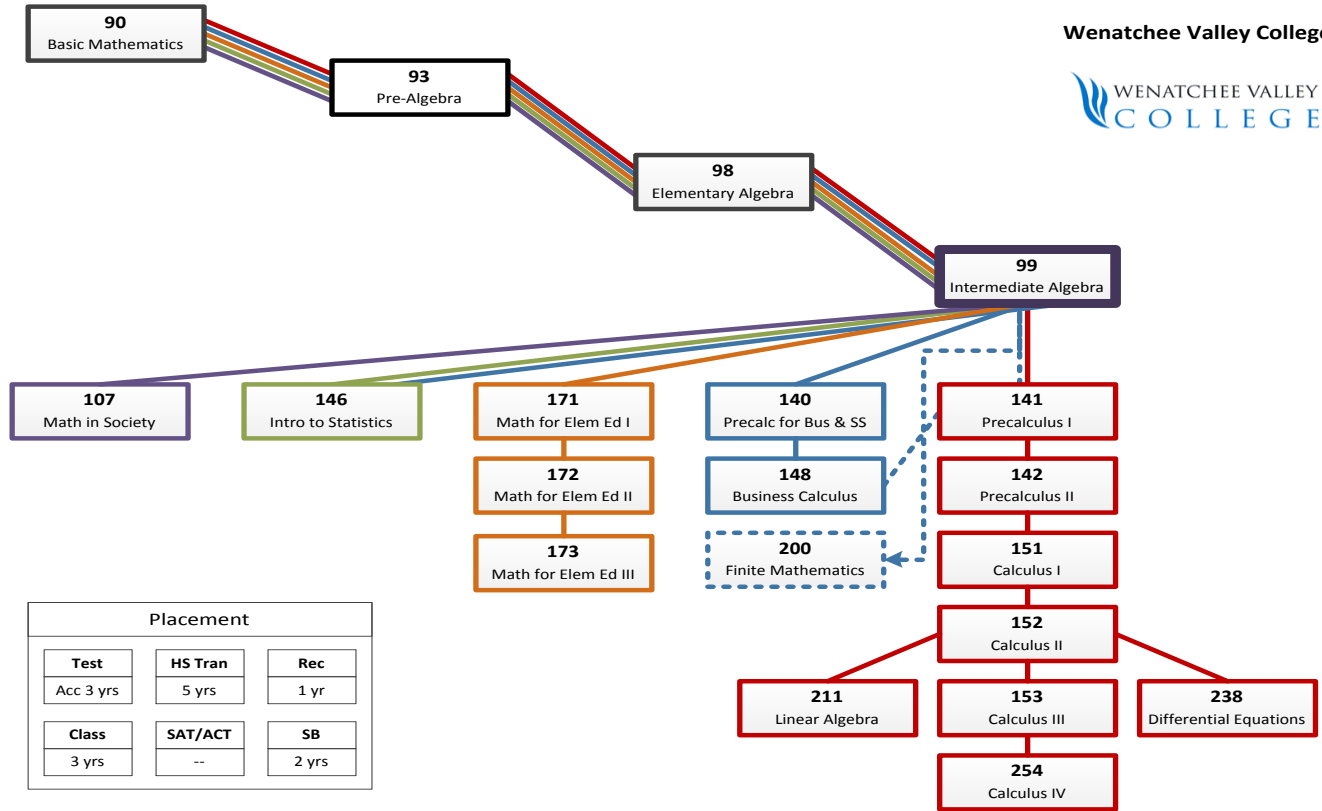
Placement		
Test	HS Tran	Rec
Acc 2 yrs	1 yr	2 yrs
Class	SAT/ACT	SB
2 yrs	2 yrs	1 yr

Note: Math 75 and 94 are computer mediated only. Math 85 and 90 have computer mediated options. Math 93 and 136 make up Statway.

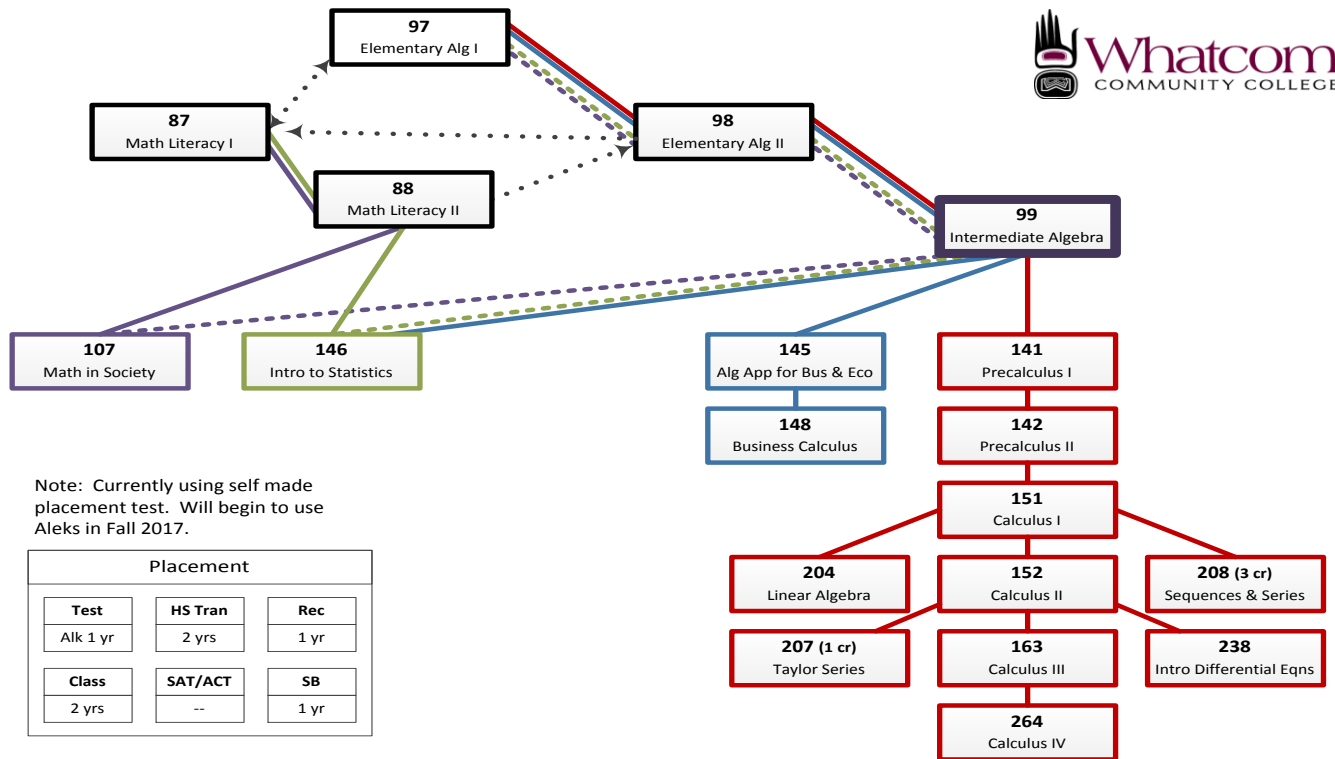


Note: In 2017-18, the tailored model with a redesigned Intermediate Algebra course will be implemented.

Placement		
Test	HS Tran	Rec
Acc 1 yr	2 yrs	1 yr
Class	SAT/ACT	SB
unlimited	2 yrs	1 yr

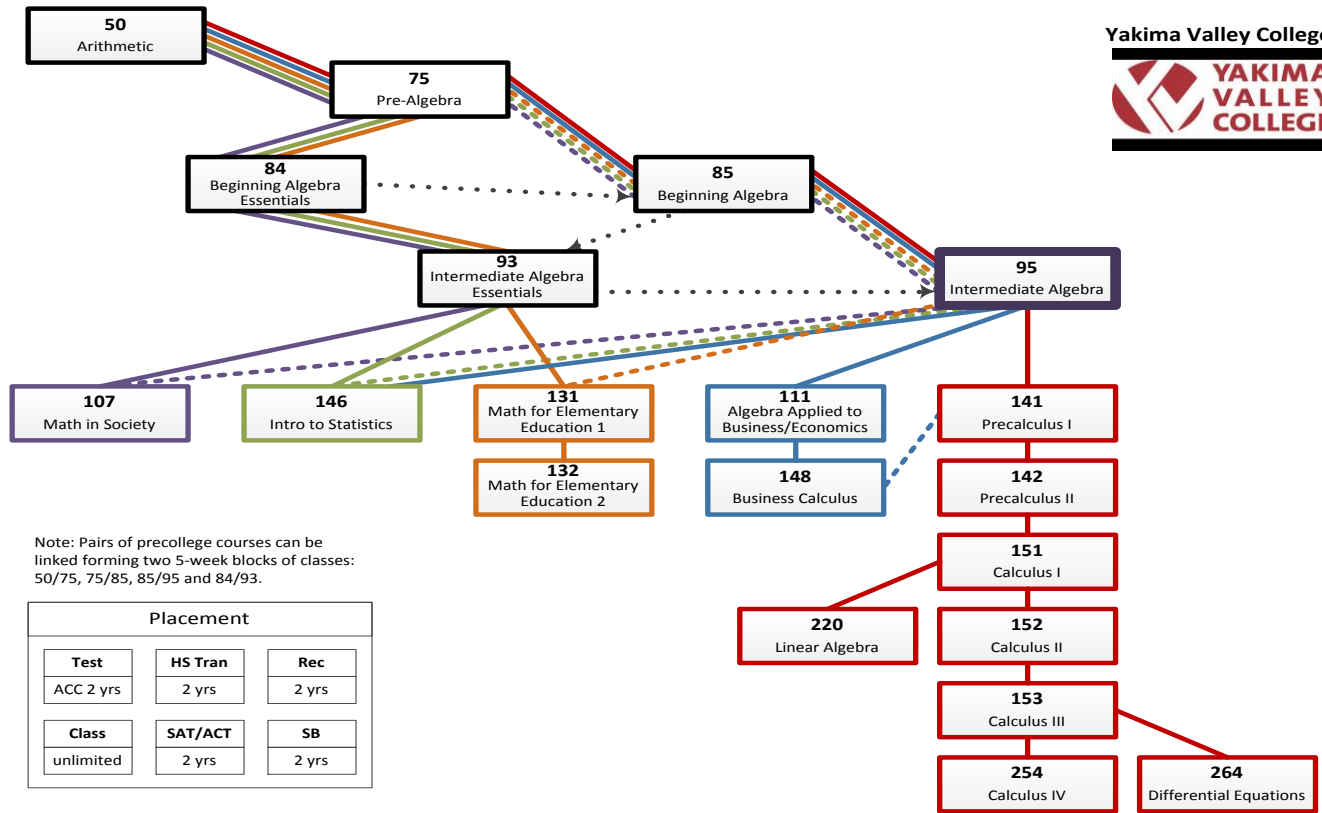


Placement		
Test	HS Tran	Rec
Acc 3 yrs	5 yrs	1 yr
Class	SAT/ACT	SB
3 yrs	--	2 yrs



Note: Currently using self made placement test. Will begin to use Aleks in Fall 2017.

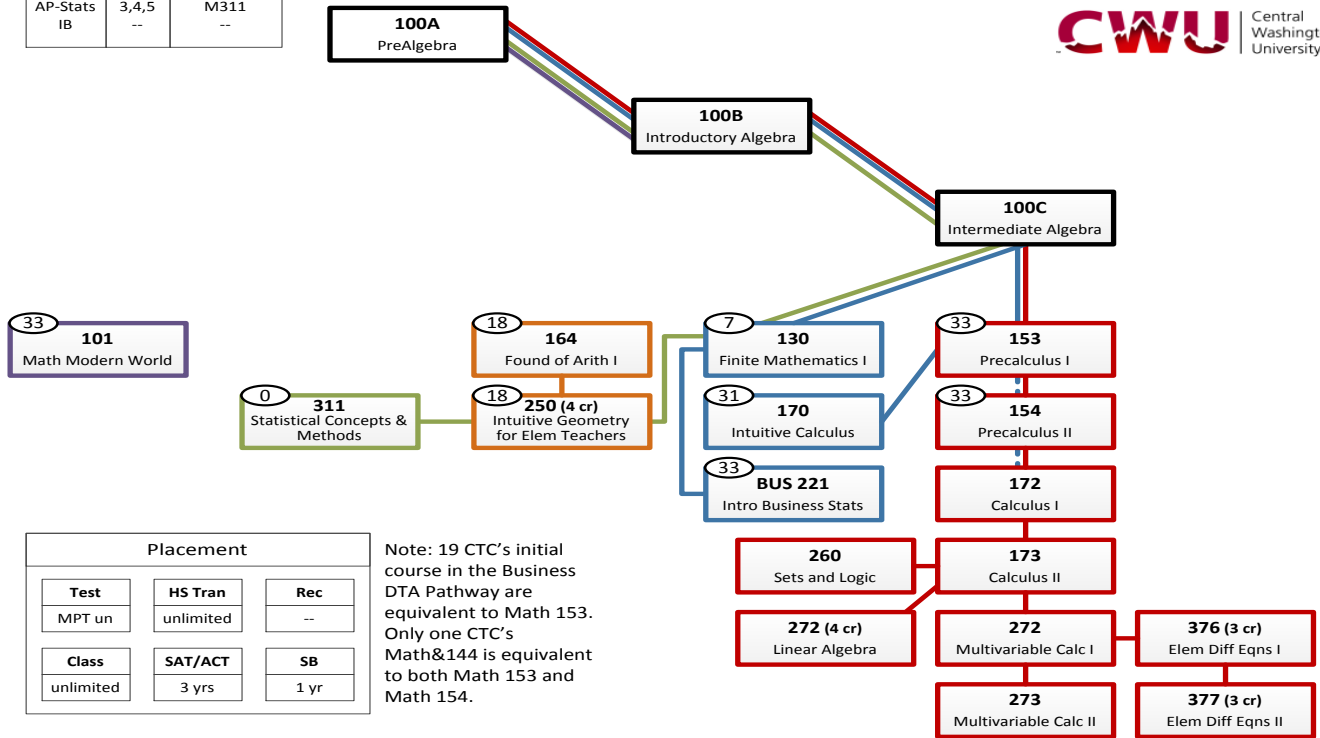
Placement		
Test	HS Tran	Rec
Alk 1 yr	2 yrs	1 yr
Class	SAT/ACT	SB
2 yrs	--	1 yr



Note: Pairs of precollege courses can be linked forming two 5-week blocks of classes: 50/75, 75/85, 85/95 and 84/93.

Placement		
Test	HS Tran	Rec
ACC 2 yrs	2 yrs	2 yrs
Class	SAT/ACT	SB
unlimited	2 yrs	2 yrs

AP/IB Credit		
AP-AB	3,4,5	M172
AP-BC	3,4,5	M172&M173
AP-Stats	3,4,5	M311
IB	--	--

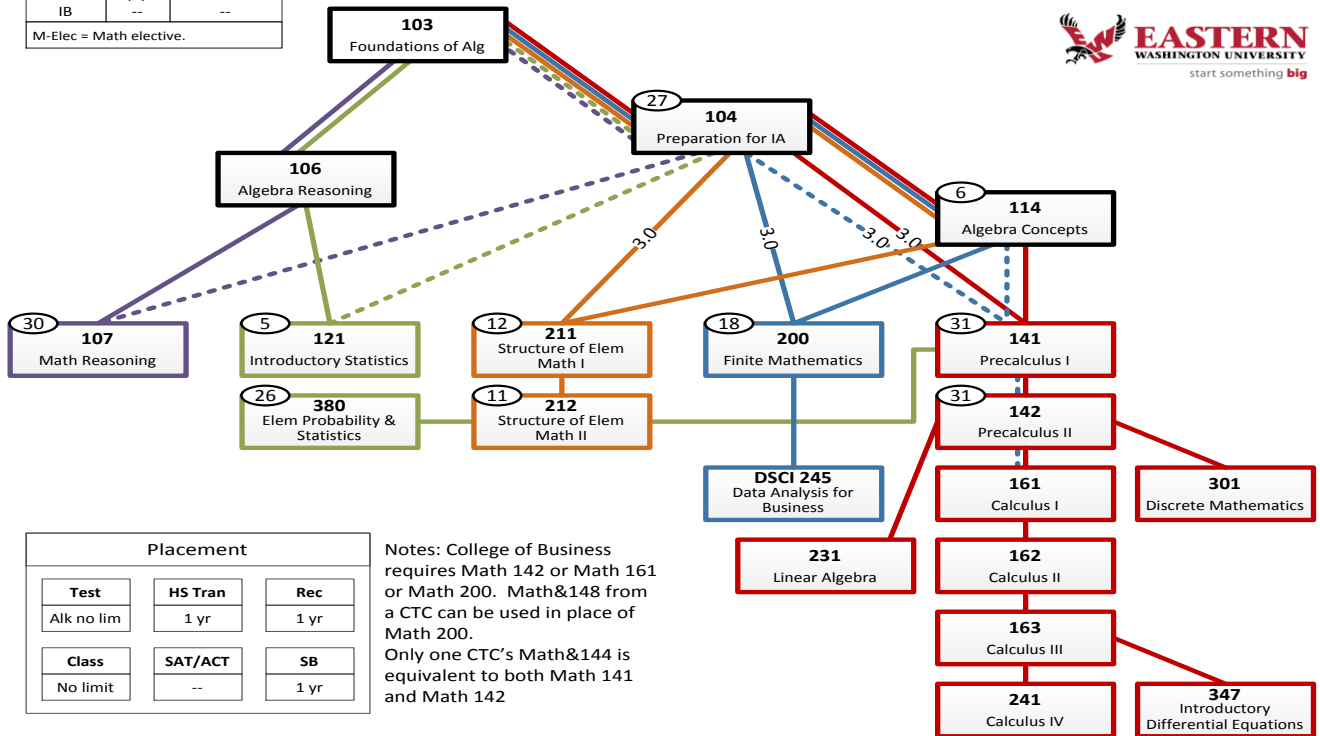


Placement		
Test	HS Tran	Rec
MPT un	unlimited	--
Class	SAT/ACT	SB
unlimited	3 yrs	1 yr

Note: 19 CTC's initial course in the Business DTA Pathway are equivalent to Math 153. Only one CTC's Math&144 is equivalent to both Math 153 and Math 154.

AP/IB Credit		
AP-AB	3,4,5	M142
AP-BC	3,4,5	M142
AP-Stats	3,4,5	M-Elec
IB	--	--

M-Elec = Math elective.

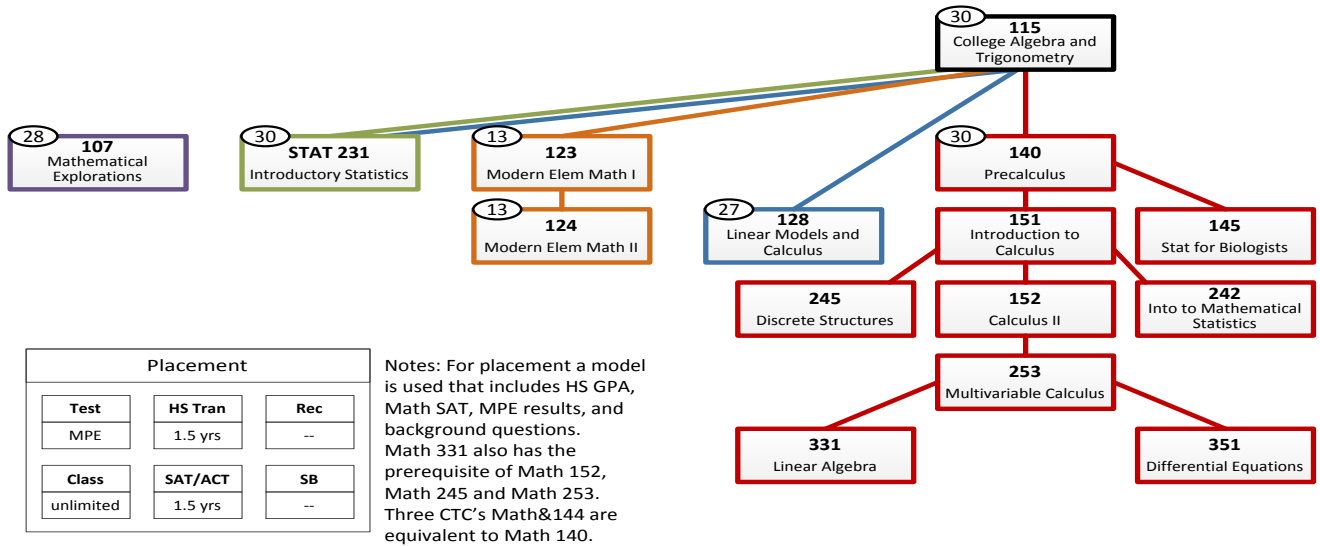


Placement		
Test	HS Tran	Rec
Alk no lim	1 yr	1 yr
Class	SAT/ACT	SB
No limit	--	1 yr

Notes: College of Business requires Math 142 or Math 161 or Math 200. Math&148 from a CTC can be used in place of Math 200. Only one CTC's Math&144 is equivalent to both Math 141 and Math 142

AP/IB Credit		
AP-AB	3,4,5	M151
AP-BC	3	M151
AP-Stats	4,5	M151&M152
IB	--	STAT231 Gen Ed*

*General Education credits are assessed to match students' academic goals.

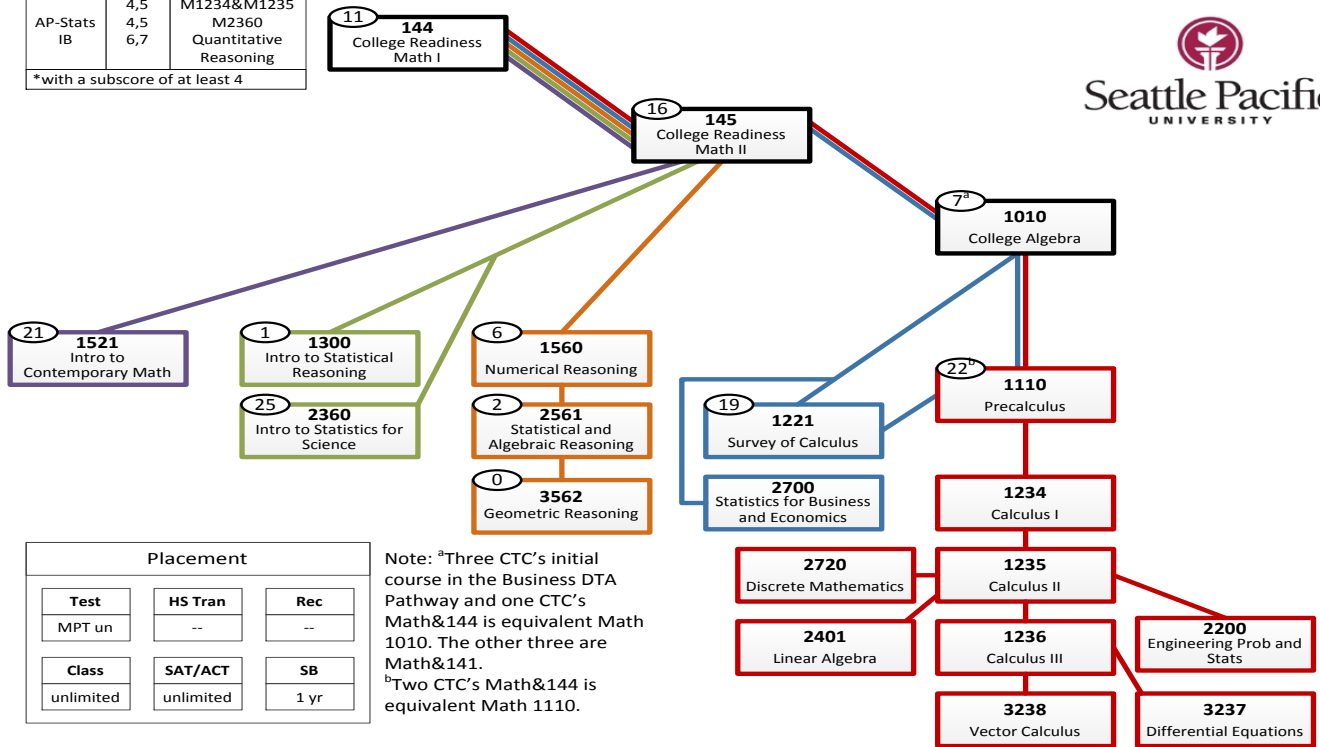


Placement		
Test	HS Tran	Rec
MPE	1.5 yrs	--
Class	SAT/ACT	SB
unlimited	1.5 yrs	--

Notes: For placement a model is used that includes HS GPA, Math SAT, MPE results, and background questions. Math 331 also has the prerequisite of Math 152, Math 245 and Math 253. Three CTC's Math&144 are equivalent to Math 140.

AP/IB Credit		
AP-AB	4,5	M1234
AP-BC	3	M1234*
AP-Stats	4,5	M1234&M1235
IB	6,7	M2360 Quantitative Reasoning

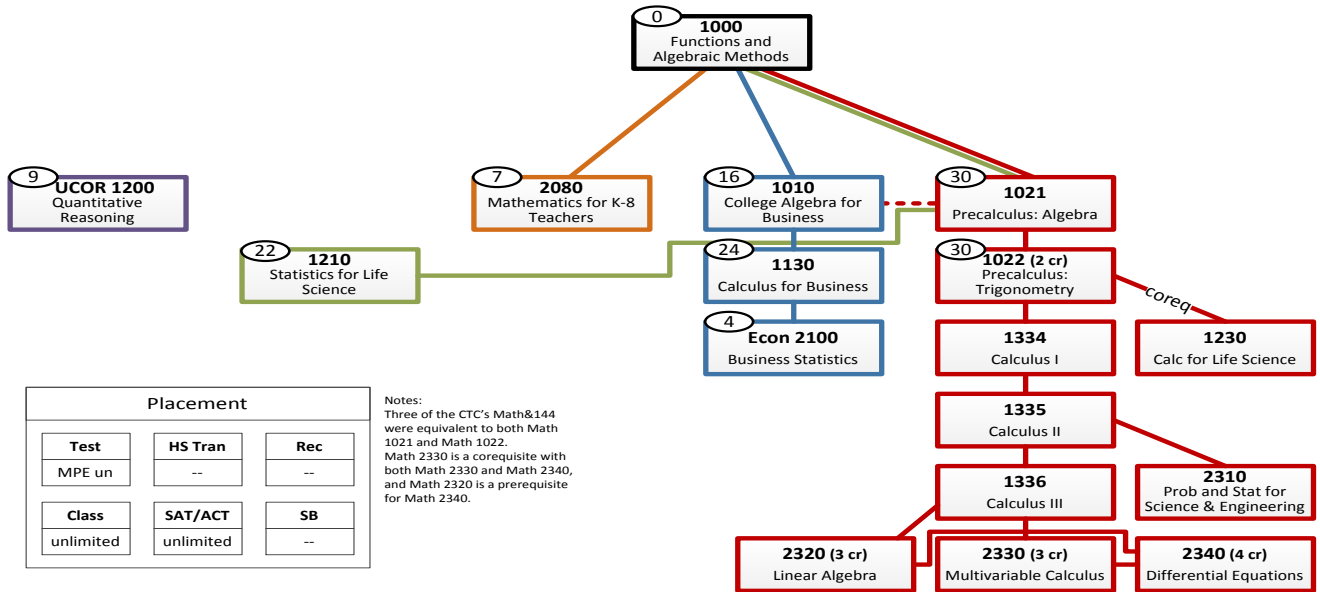
*with a subscore of at least 4



Placement		
Test	HS Tran	Rec
MPT un	--	--
Class	SAT/ACT	SB
unlimited	unlimited	1 yr

Note: ^aThree CTC's initial course in the Business DTA Pathway and one CTC's Math&144 is equivalent Math 1010. The other three are Math&141. ^bTwo CTC's Math&144 is equivalent Math 1110.

AP/IB Credit		
AP-AB	3	M1130 or 1230
	4	M1334
AP-BC	5	M1334&M1335
	3	M1334
AP-Stats	4	M1334&M1335
	5	M1334&M1335
IB	6,7	M1130 or M1230
IB-HL	5,6	M1130 or 1230 or 1334
	7	M1335

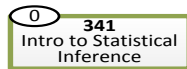


Placement		
Test	HS Tran	Rec
MPE un	--	--
Class	SAT/ACT	SB
unlimited	unlimited	--

Notes:
 Three of the CTC's Math&144 were equivalent to both Math 1021 and Math 1022.
 Math 2330 is a corequisite with both Math 2330 and Math 2340, and Math 2320 is a prerequisite for Math 2340.

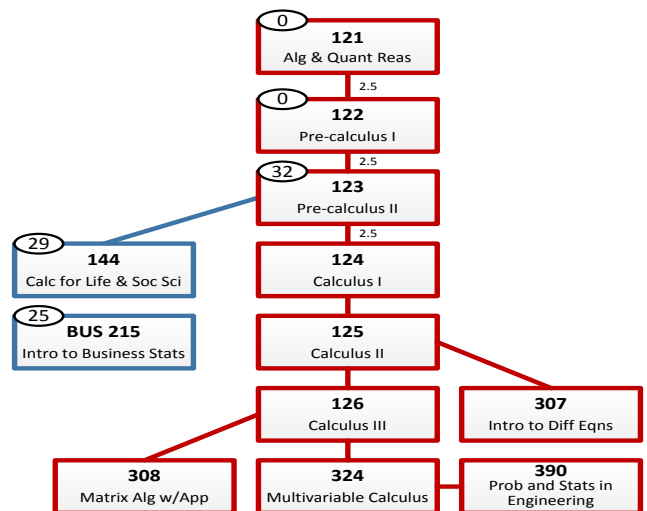
AP/IB Credit		
AP-AB	2	M124*
	3,4	M124
	5	M124&M125
AP-BC	2	M124**
	3	M124
AP-Stats	4,5	M124&M125
	3,4,5	Stat311
IB	5,6	M120
	7	M124

*Placement only.
 **In conjunction with a subgrade of 3, 4, or 5.



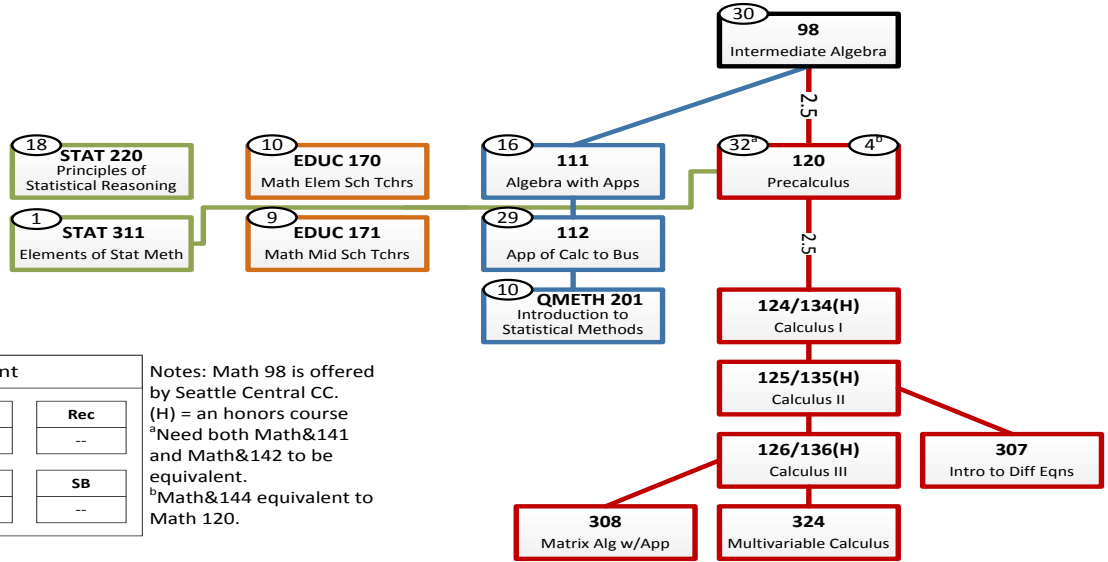
Note: Advisors at UW Bothell are currently working on equivalency guides for the CTCs.

Placement		
Test	HS Tran	Rec
MPT	--	--
Class	SAT/ACT	SB
unlimited	--	--



AP/IB Credit		
AP-AB	2	M120*
	3,4	M124
AP-BC	5	M124&M125
	2	M124**
AP-Stats	3	M124
	4,5	M124&M125
IB	3,4,5	Stat311
	5,6	M120
	7	M124

*Placement only.
**In conjunction with a subgrade of 3, 4, or 5.

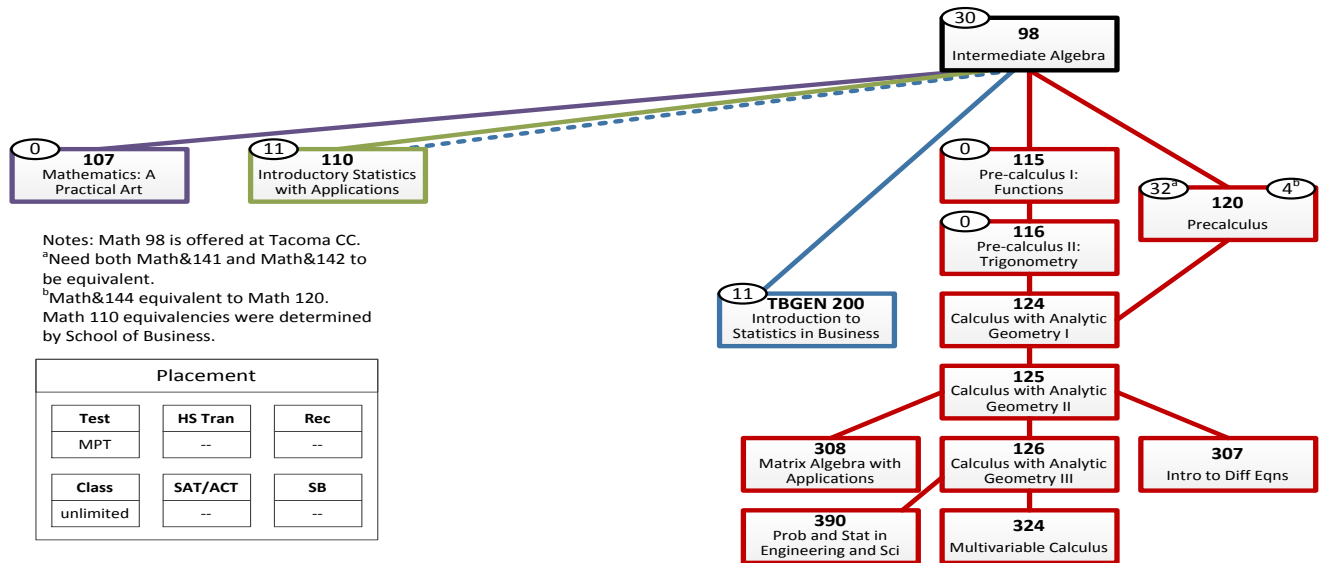


Placement		
Test	HS Tran	Rec
MPT 2 yrs	--	--
Class	SAT/ACT	SB
unlimited	--	--

Notes: Math 98 is offered by Seattle Central CC.
(H) = an honors course
^aNeed both Math&141 and Math&142 to be equivalent.
^bMath&144 equivalent to Math 120.

AP/IB Credit		
AP-AB	2	M124*
	3,4	M124
AP-BC	5	M124&M125
	2	M124**
AP-Stats	3	M124
	4,5	M124&M125
IB	3,4,5	Stat311
	5,6	M120
	7	M124

*Placement only.
**In conjunction with a subgrade of 3, 4, or 5.



Notes: Math 98 is offered at Tacoma CC.
^aNeed both Math&141 and Math&142 to be equivalent.
^bMath&144 equivalent to Math 120.
Math 110 equivalencies were determined by School of Business.

Placement		
Test	HS Tran	Rec
MPT	--	--
Class	SAT/ACT	SB
unlimited	--	--

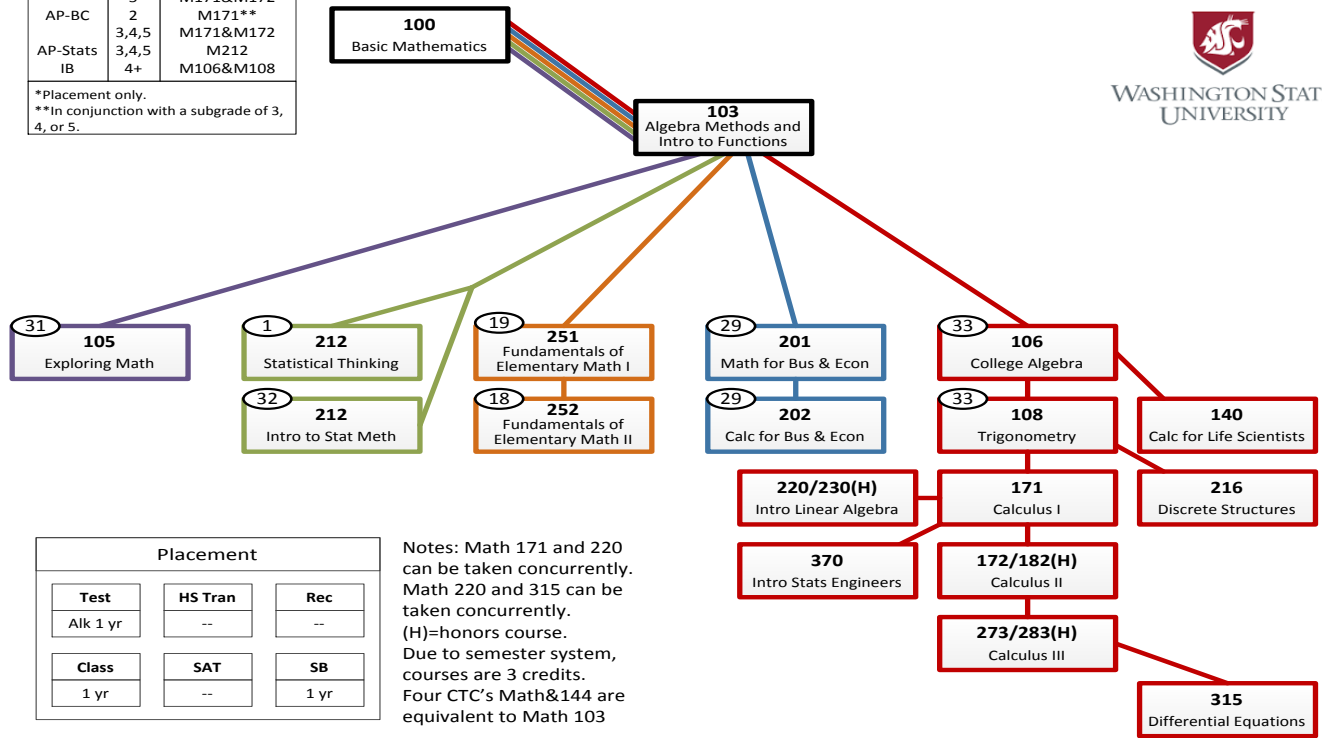
AP/IB Credit		
AP-AB	2	M120*or M171*
	3,4	M171
	5	M171&M172
AP-BC	2	M171**
	3,4,5	M171&M172
AP-Stats	3,4,5	M212
IB	4+	M106&M108

*Placement only.
**In conjunction with a subgrade of 3, 4, or 5.

Washington State University



WASHINGTON STATE UNIVERSITY

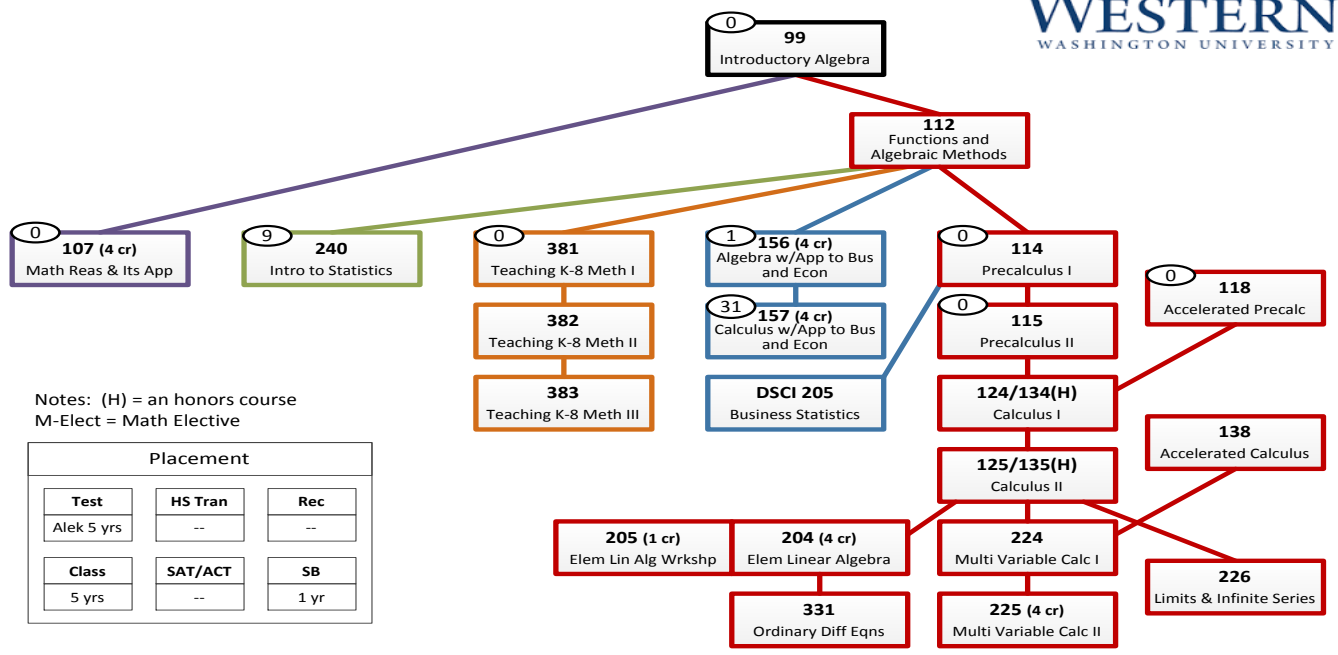


Placement		
Test	HS Tran	Rec
Alk 1 yr	--	--
Class	SAT	SB
1 yr	--	1 yr

Notes: Math 171 and 220 can be taken concurrently. Math 220 and 315 can be taken concurrently. (H)=honors course. Due to semester system, courses are 3 credits. Four CTC's Math&144 are equivalent to Math 103

AP/IB Credit		
AP-AB	3	M-Elect
AP-BC	3	M-Elect
AP-Stats	3	M240
IB	4	M-Elect

Western Washington University

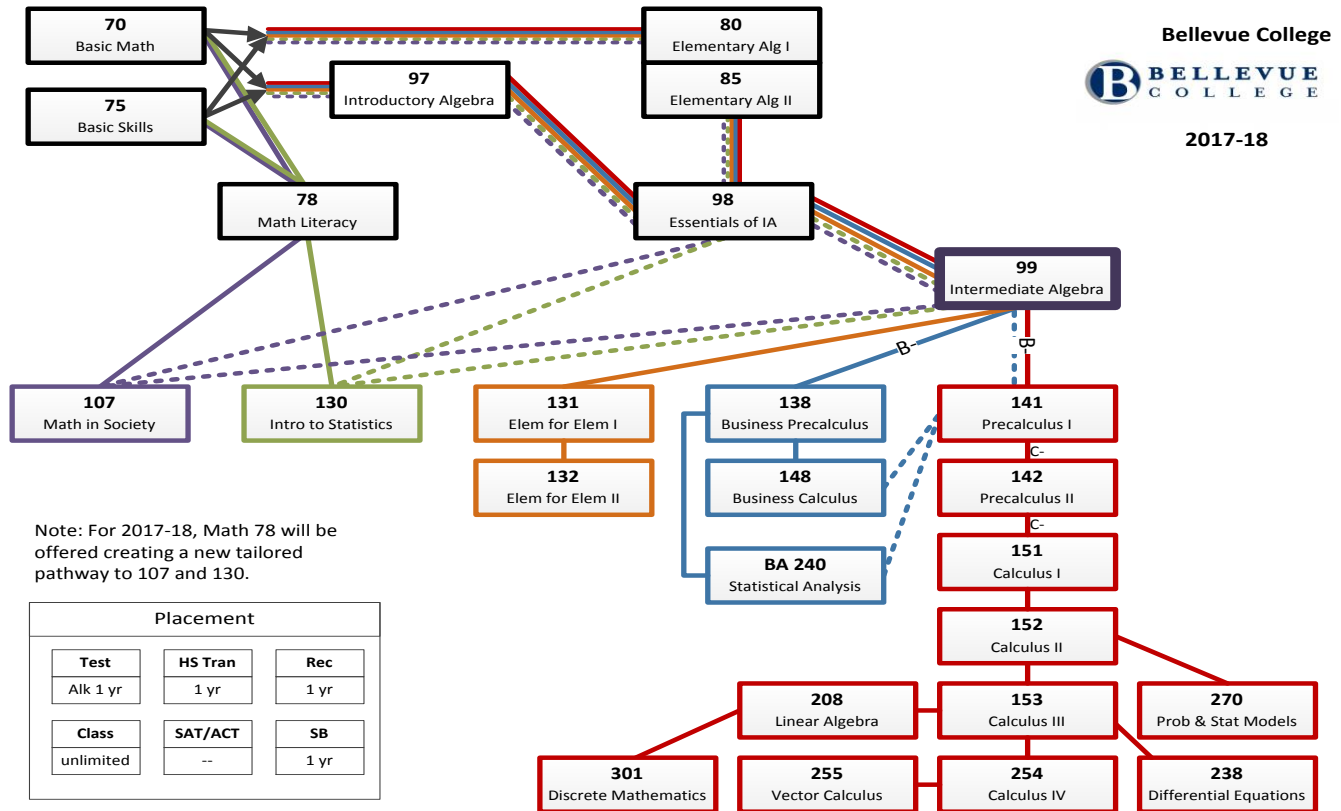


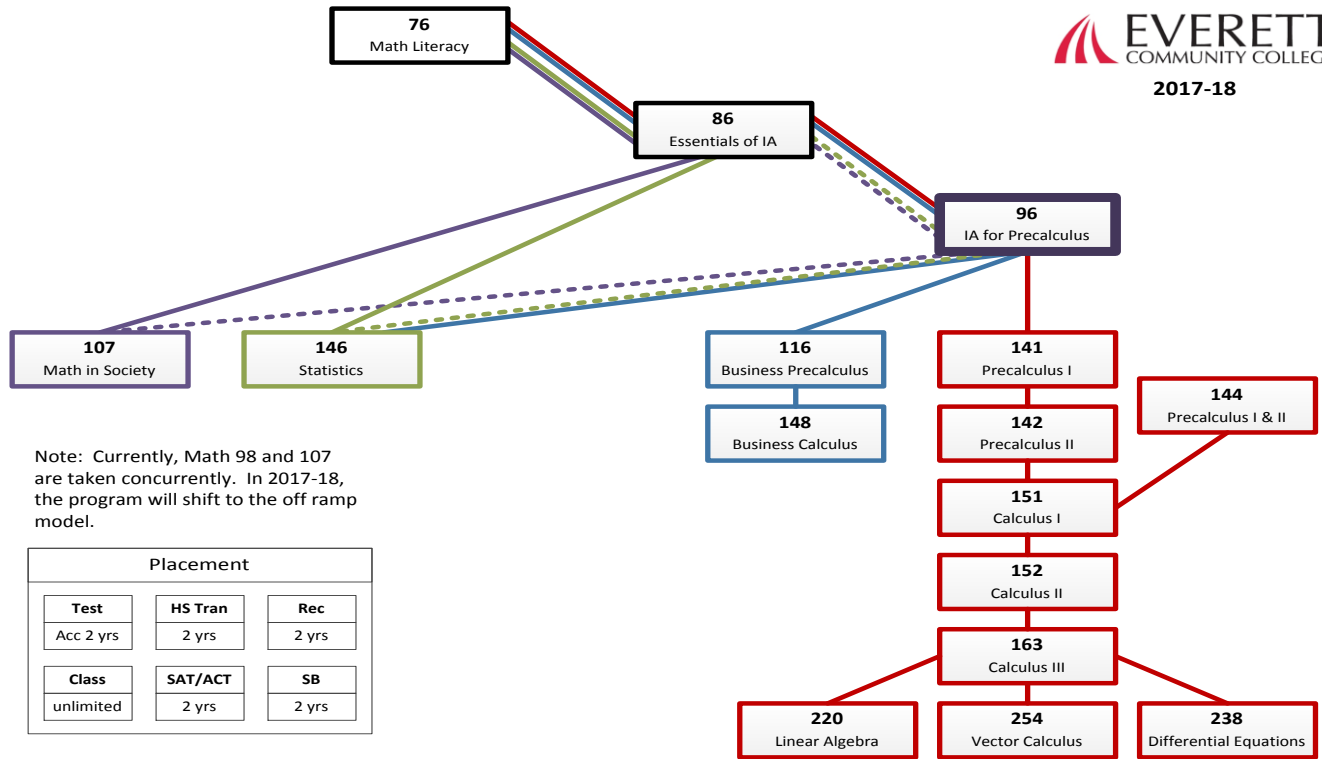
Notes: (H) = an honors course
M-Elect = Math Elective

Placement		
Test	HS Tran	Rec
Alek 5 yrs	--	--
Class	SAT/ACT	SB
5 yrs	--	1 yr

Appendix

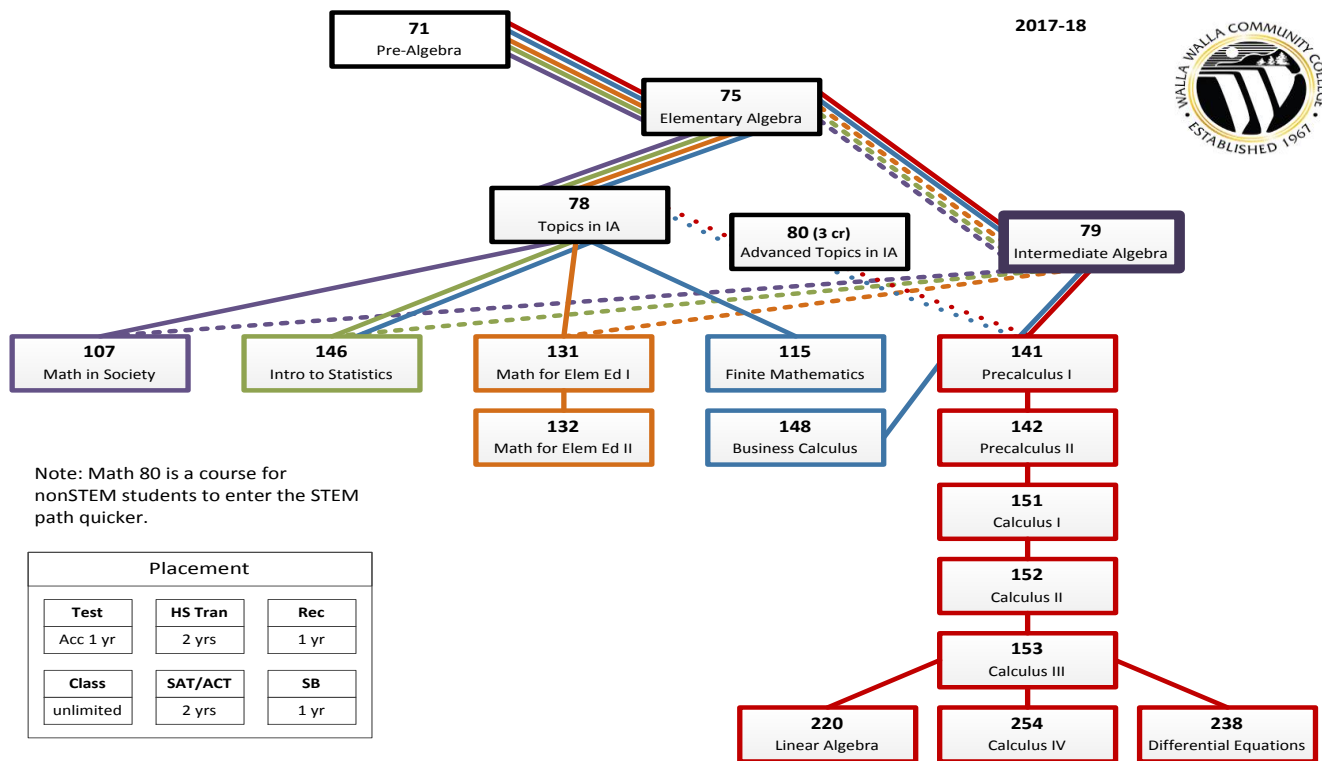
The following are the flowcharts for colleges that have made changes to their math programs for the 2017-18 academic year: Bellevue College, Everett Community College, and Walla Walla Community College.





Note: Currently, Math 98 and 107 are taken concurrently. In 2017-18, the program will shift to the off ramp model.

Placement		
Test	HS Tran	Rec
Acc 2 yrs	2 yrs	2 yrs
Class	SAT/ACT	SB
unlimited	2 yrs	2 yrs



Note: Math 80 is a course for nonSTEM students to enter the STEM path quicker.

Placement		
Test	HS Tran	Rec
Acc 1 yr	2 yrs	1 yr
Class	SAT/ACT	SB
unlimited	2 yrs	1 yr