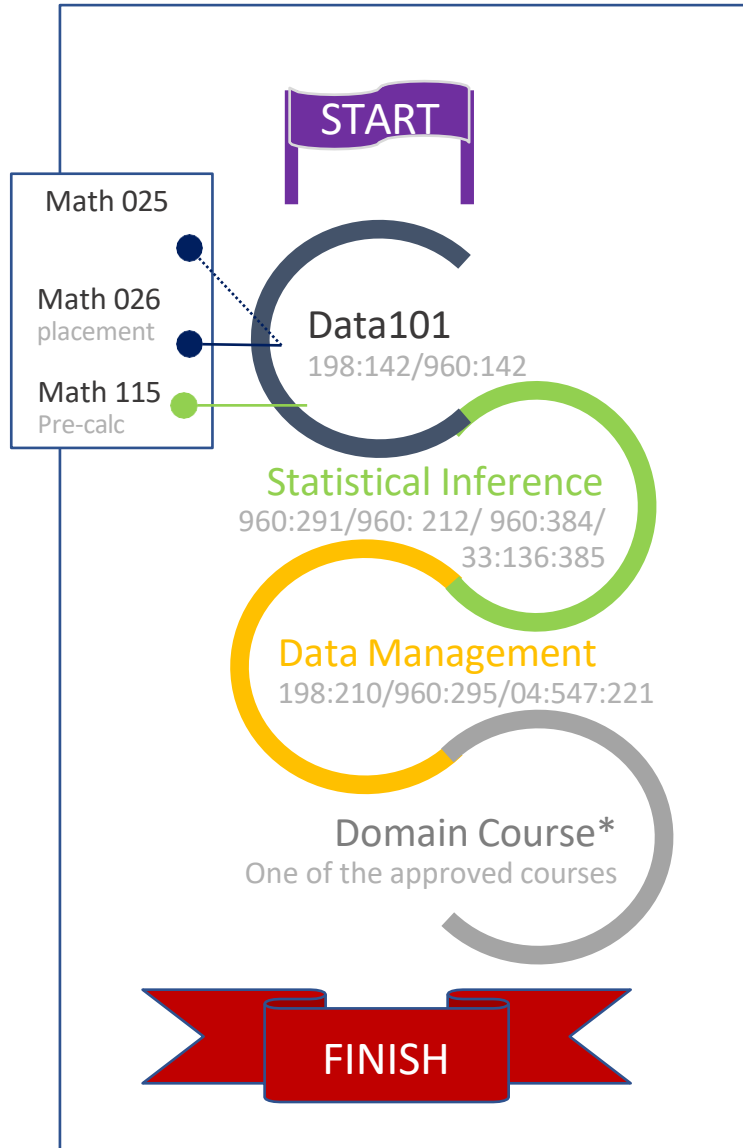


DATA SCIENCE Certificate

<https://datascience.sas.rutgers.edu>



Credit-based **Data Science Undergraduate Certificate** program where students learn hands-on skills as well as gain an understanding of the data science concepts. Students are able to take any data set and perform statistically sound analytics, then present conclusions backed with data.

Approved Domain Courses* (check departmental prerequisites)

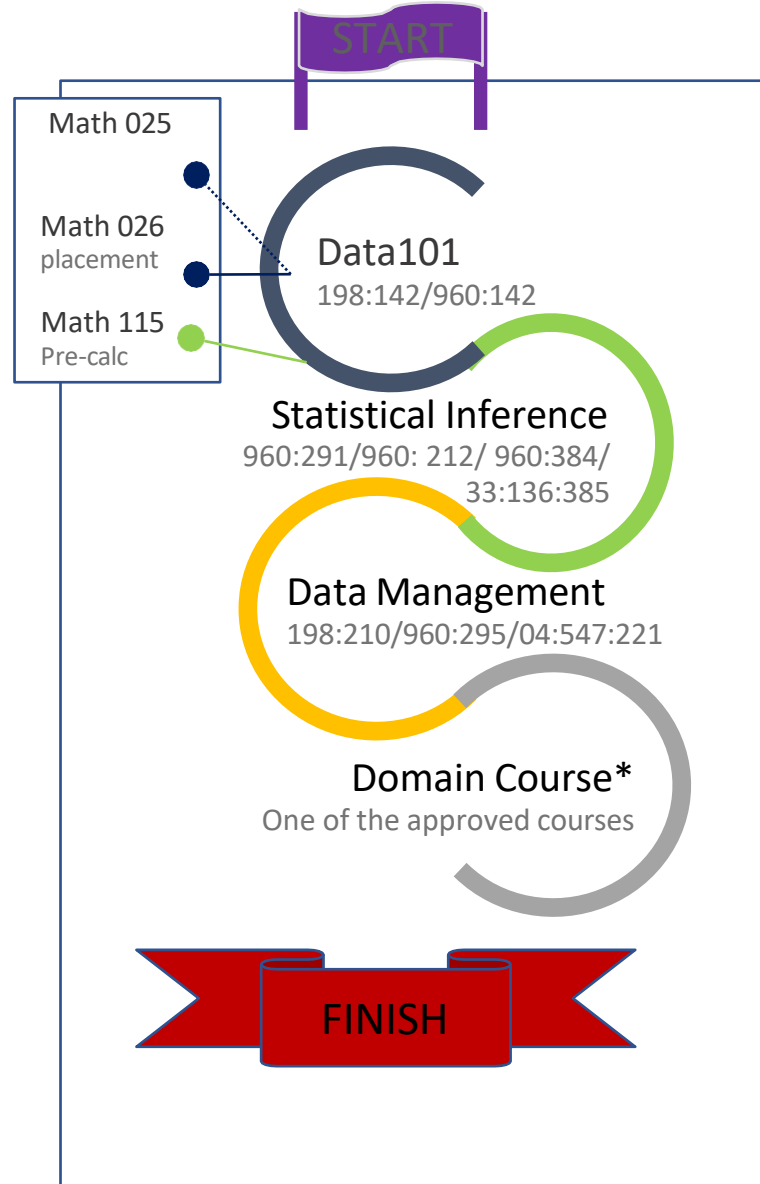
SAS	CS 439	Econ 322	English 207	Genetics 303	Geography 320/321/330	Physics 345	Pol. Sci. 391	Psychology 202/203	Sociology 360	Statistics 365/463/486
				SC&I	Interdiscip. 220	ITI 321	SEBS	Biotech 485	SOE	ECE 443

Students must maintain a GPA of 2.0 in the courses applied to the Data Science Certificate.
No courses with a grade of D can be counted towards the certificate.

DATA SCIENCE Certificate

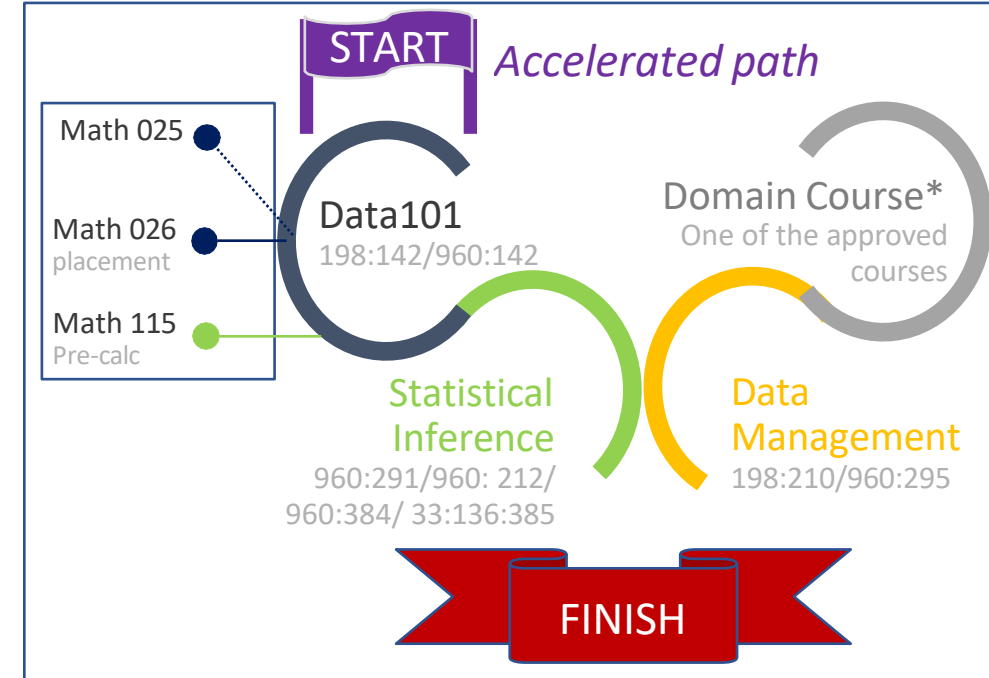
<https://datascience.sas.rutgers.edu>

Approved Domain Courses* (check departmental prerequisites)



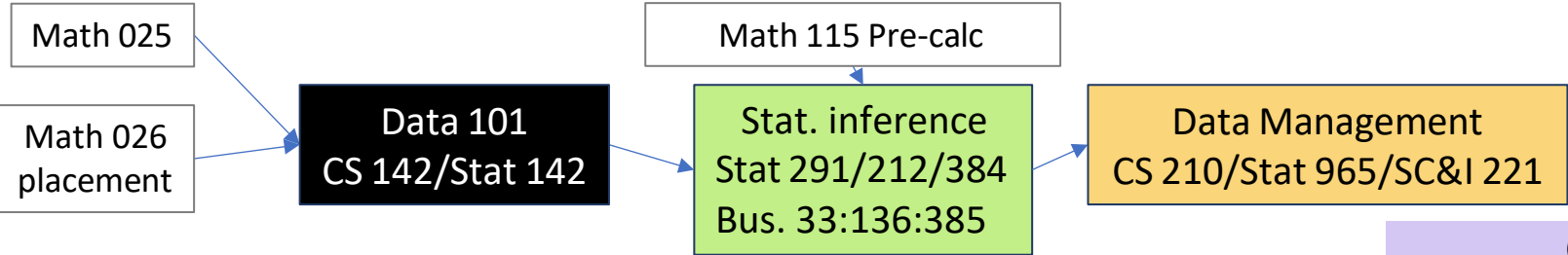
SAS (01)	Computer Science	198:439		
	Economics	220:322		
	English	359:207		
	Genetics	447:303		
	Geography	450:320	450:321	450:330
	Physics	750:345		
	Political Science	790:391		
	Psychology	830:202	830:203	
	Sociology	920:360		
	Statistics	960:365	960:463	960:486
SC&I (17)	Digital Communication, Information & Media	189:220		
	Information Technology & Informatics	547:321		
SEBS (11)	Biotechnology	126:485		
SOE (14)	Electrical and Computer Engineering	332:443		

Students must maintain a GPA of 2.0 in the courses applied to the Data Science Certificate.
 No courses with grade D can be counted towards the certificate.



DATA SCIENCE Minor

<https://datascience.sas.rutgers.edu>



One of the approved domain courses*

SAS

CS 439	Econ 322	English 207	Genetics 303	Geography 320/321/330	Physics 345	Pol. Sci. 391	Psychology 202/203	Sociology 360	Statistics 365/463/486
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SC&I

Interdiscip. 220	ITI 321
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SEBS

Biotech 485

SOE

ECE 443

Choose one track (two courses)
(both courses must be from the same track)

Track 1 Computer Science	Track 2 Statistics	Track 3 Economics	Track 4 Societal Impact [#]
Machine Learning/ Deep Learning ^{**}	Statistical Learning ^{***}	Machine Learning for Economics ⁺	Information Visualization ^{&}
Regression Methods ^{***}	Information Visualization ^{&} / Data in Context/ Regression Methods ^{***}	Information visualization ^{&} / Data in Context	Data in Context

To declare the Data Science minor, students must complete Data 101 (198:142/960:142), with a grade of C or better.

*Check departmental prerequisites.
**Computing prerequisites can be met with Math152 (Calc II), Math 250 (linear alg.), CS111, CS112 (data str.), CS205 (discrete 1), and CS206 (discrete 2).
***Level II Statistics prerequisites may be fulfilled by 960:212 or 960:384 or 960:401 or 960:484 or 960:291 or the equivalent.
⁺ Economics prerequisites can be met with 01:220:320, 321, and 322, and 01:640:136 or 152.
[&] Info. Visualization prerequisites can be met with 04:547:201 OR 01:198:142/01:960:142 AND 01:960:291 (or one of its equivalents).
[#] Track 4 Societal Impact track courses may NOT be used as Domain course requirement.
Students must maintain a G.P.A. of 2.0 in the courses applied to the minor. No courses with a grade of D can be counted toward the minor.
Students are advised to check with their major department for any restrictions on counting courses for both the Data Science minor and their major.