Data Science (BMath) Checklist

Terms	Calendar F2025	Terms	Calendar F2022, F2023	If you liked...	Try...
	Core				
FWS	MATH 135, 145	FWS	MATH 135, 145	STAT 330	STAT 450
FWS	MATH 106, 136, 146	FWS	MATH 106, 136, 146	STAT 331/371	STAT 431
FWS	MATH 127, 137, 147	FWS	MATH 127, 137, 147		STAT 443
FWS	MATH 128, 138, 148	FWS	MATH 128, 138, 148	STAT 332/372	STAT 454
FWS	MATH 235, 245	FWS	MATH 235, 245		STAT 430
FWS	MATH 237, 247[7]	FWS	MATH 237, 247[7]	STAT 333	STAT 433
FWS	STAT 230, 240	FWS	STAT 230, 240	STAT 340/341	STAT 440
FWS	STAT 231, 241	FWS	STAT 231, 241		STAT 441
FWS	CS 115, 135, 145	FWS	CS 115, 135, 145		STAT 442
FWS	CS 116, 136, 146	FWS	CS 116, 136, 146		STAT 444
FWS	MATH 239[7], 249[7]	FWS	MATH 239[7], 249[7]	STAT 337	STAT 431
FWS	Communications Course[1]	FWS	Communications Course[1]		STAT 436
	Data Science Mandatory Courses				STAT 437
FW	CS 136L	FW	CS 136L		
FWS	CS 240	FWS	CS 240	**Going to...**	**Try...**
FWS	CS 241	FWS	CS 241	Industry	STAT 435
FWS	CS 245	FWS	CS 245	Computers	STAT 440
FWS	CS 246	FWS	CS 246	(Big Data)	STAT 441
FWS	CS 251	FWS	CS 251		STAT 442
FWS	CS 341	FWS	CS 341		STAT 444
FWS	CS 348	FWS	CS 348	Grad School	STAT 450
10	CS 431				
FWS	STAT 330[9]	FWS	STAT 330[9]	Finance	STAT 433
FWS	STAT 331[2]	FWS	STAT 331[2]		STAT 443
FWS	STAT 332[3]	FWS	STAT 332[3]	Biology/Health	STAT 431
FWS	STAT 333[9]	FWS	STAT 333[9]		STAT 436
FW	STAT 341	FW	STAT 341		STAT 437
FWS	ENGL 378[4]	FWS	ENGL 378[4]		STAT 438
	Data Science Mandatory with Options				
			One Of...		
		10	CS 431		
		10	CS 451		
	One Of...		**One Of...**		
10	CS 480	10	CS 480		
10	CS 484				
10	CS 485	10	CS 485		
10	CS 486	10	CS 486		
FW	STAT 441	FW	STAT 441		
			Two Of...		
		10	CS 480		
		10	CS 485		
	Two Of...	10	CS 486		
FWS	STAT 431	FWS	STAT 431		
WS	STAT 440	WS	STAT 440		
FW	STAT 441	FW	STAT 441		
FW	STAT 442	FW	STAT 442		
FWS	STAT 443	FWS	STAT 443		
WS	STAT 444	WS	STAT 444		
	An additional		**An additional**		
	Math[8] 3XX/4XX		4 Total Math[8] 3XX/4XX in addition to your STAT 3XX/4XX courses - these can include CS 431, 341 and 348 but not CS 485/486 if you are using them as a STAT 4XX.		
	Thus minimums of...		**Thus minimums of...**		
	>=10 non math		>=10 non math		
	>=26 math[8] courses[6]		>= 3 STAT 4XX[5,6]		
	>=40 courses		>=26 math[8] courses[6]		
			>=40 courses		

Schema

```
                CS 115
                  |
          CS 116 --<-- CS 135
                  |     /
   MATH 135    CS136
      |/    |    \
    CS 245  CS 246  CS 251
      | /    |    |
STAT 230------->  ----CS240  CS 241  |
      | \    |              \|
MATH 239---->  -----CS341  CS 348   CS 350
      |\    |   /
CS 251-------->  ------CS 431   CS 451
```
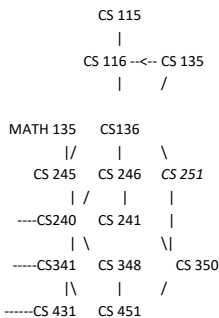
[1]Please see ugradcalendar.uwaterloo.ca for a list of courses.

[2]STAT 331 can be replaced by STAT 371

[3]STAT 332 can be replaced by STAT 372.

[4]MTHEL 300

[5]One of these can be selected from: CS 457, 486, 485

[6]These can come from the "Mandatory with Options" section

[7]For core, in most plans, you need one of MATH 237, 239. In DS you need both.

[8]A MATH course is any course offered in the Faculty (i.e. CS, STAT, ACTSC, ...) except COMM or MTHEL

[9]STAT 334 is not an acceptable course for any STAT plan. Please take STAT 330, 333.

[10]For CS courses please see https://cs.uwaterloo.ca/current/courses/course_descriptions for offerings

Please see ugradcalendar.uwaterloo.ca for a complete list of rules.

The undergraduate calendar is the official set of rules. Where this

list and the undergraduate calendar deviate the undergraduate calendar takes

precedence.