Certificate in Scientific Computation
Effective Fall 2014

Certificate in Scientific Computation Description
The Certificate in Scientific Computation is available to all undergraduates interested in the use of mathematical, statistical and computer-based techniques to investigate complex systems in a variety of applications. Return your application to the Department of Statistics and Data Sciences in GDC 7.408, Campus Mail Code G2500. The form is available for download at http://ssc.utexas.edu/undergraduate/certificate-in-scientific-computation. Students are encouraged to apply early in their course of study in order to be advised throughout the program. Students must complete 18 semester hours of coursework, including an independent research project. All courses presented for the certificate must be completed with a grade of at least C-.

Certificate in Scientific Computation Prerequisite Knowledge with a grade of C- or better	Lacking
M 409D or M 408M: _____	

Certificate in Scientific Computation Requirements with grades of C- or better **(minimum of 18 hours)**	Lacking
Complete one course from each of the following groups: A. **Computer Programming**: SDS 222 or SSC 222*: ____ The following courses are approved substitutes: ASE 201; BME 303; CS 313E; EE 312*; GEO 325J B. **Mathematics**: SDS 329C; M 340L, 341, 362M, 372K: _____ The following courses are approved substitutes: M 427K *These courses are recommended by the department.	
Scientific computing: choose two different areas and complete one course from each: _____ + _____ A. **Numerical Methods**: SDS 335; ASE 311; CHE 348; CS 323E, 323H, 367; M 348; PGE 310 The following courses are approved substitutes: CE 379K; M 368K B. **Statistical Methods:** BME 335, EE 351K, M 358K, M 378K The following courses are approved substitutes: SDS 325H, 328M; ECO 329; ME 335; or another statistics course with consent of faculty advisor C. **Other Computing Topics**: SDS 329D, 374C, 374D, 374E; CS 324E, 327E, 329E (approved topics only), 377; M 346, 362M, 368K, 372K, 375T (approved topics only), 376C; ME 367S The following courses are approved substitutes: MIS 325; NEU 366M	
Complete one of the following courses: _____ **Applied Computational Science:** ASE 347; BIO 321G; BME 342, 346, 377T†; CH 368†; C S 324E, 329E†; ECO 363C; EE 379K; GEO 325K; M 375T†, 474M; PHY 329 The following courses are approved substitutes: BIO 337J; BME 341; CS 378†; EE 361; FIN 372/STA 372.6 †Topics courses subject to approval based on course specific topics. Full list of courses is available at: https://stat.utexas.edu/undergraduate/certificate-in-scientific-computation#appcompcourse	
Complete an independent research course **SDS 479R***:* _____ *Conduct independent research advised by a member of the SDS Scientific Computing faculty. Download register research course form at http://ssc.utexas.edu/undergraduate/certificate-in-scientific-computation to register for the independent study course. A final research report must be submitted upon completion of the course.*	
Note for BSA students only: Coursework undertaken for certificates may overlap with the Core curriculum, writing flags, the quantitative reasoning flag, and Honors coursework. 3 hours MAXIMUM of major coursework may overlap with a transcript-recognized certificate. Overlap is PROHIBITED with the Language, Arts, and Culture requirements and more than 3 hours of major coursework.	