CSE - COMPUTATIONAL SCIENCE AND ENGINEERING

CSE Class Schedule (https://courses.illinois.edu/schedule/DEFAULT/DEFAULT/CSE/)

Courses

CSE 198  Special Topics  credit: 1 to 4 Hours. (https://courses.illinois.edu/schedule/terms/CSE/198/)
Subject offerings of new and developing areas of knowledge in computational science and engineering intended to augment the existing curriculum. See Class Schedule or departmental course information for topics and prerequisites. May be repeated up to 6 hours in the same semester and to a maximum of 9 hours in separate semesters.

CSE 298  Special Topics  credit: 1 to 4 Hours. (https://courses.illinois.edu/schedule/terms/CSE/298/)
Subject offerings of new and developing areas of knowledge in computational science and engineering intended to augment the existing curriculum. See Class Schedule or departmental course information for topics and prerequisites. May be repeated up to 6 hours in the same semester and up to 9 hours in separate semesters.

CSE 398  Special Topics  credit: 1 to 4 Hours. (https://courses.illinois.edu/schedule/terms/CSE/398/)
Subject offerings of new and developing areas of knowledge in computational science and engineering intended to augment the existing curriculum. See Class Schedule or departmental course information for topics and prerequisites. May be repeated up to 6 hours in the same semester and up to 9 hours in separate semesters.

CSE 401  Numerical Analysis  credit: 3 or 4 Hours. (https://courses.illinois.edu/schedule/terms/CSE/401/)
Same as CS 450, ECE 491 and MATH 450. See CS 450.

CSE 402  Parallel Progrmng: Sci & Engrg  credit: 3 or 4 Hours. (https://courses.illinois.edu/schedule/terms/CSE/402/)
Same as CS 420 and ECE 492. See CS 420.

CSE 408  Applied Parallel Programming  credit: 4 Hours. (https://courses.illinois.edu/schedule/terms/CSE/408/)
Same as CS 483 and ECE 408. See ECE 408.

CSE 412  Numerical Thermo-Fluid Mechs  credit: 2 to 4 Hours. (https://courses.illinois.edu/schedule/terms/CSE/412/)
Same as ME 412. See ME 412.

CSE 414  Algorithms  credit: 4 Hours. (https://courses.illinois.edu/schedule/terms/CSE/414/)
Same as CS 473 and MATH 473. See CS 473.

CSE 422  Computer System Organization  credit: 3 or 4 Hours. (https://courses.illinois.edu/schedule/terms/CSE/422/)
Same as CS 433. See CS 433.

CSE 423  Operating Systems Design  credit: 3 or 4 Hours. (https://courses.illinois.edu/schedule/terms/CSE/423/)
Same as CS 423. See CS 423.

CSE 425  Operating Systems Design  credit: 3 or 4 Hours. (https://courses.illinois.edu/schedule/terms/CSE/425/)
Same as CS 427. See CS 427.

CSE 427  Interactive Computer Graphics  credit: 3 or 4 Hours. (https://courses.illinois.edu/schedule/terms/CSE/427/)
Same as CS 418. See CS 418.

CSE 428  Statistical Computing  credit: 3 or 4 Hours. (https://courses.illinois.edu/schedule/terms/CSE/428/)
Same as STAT 428. See STAT 428.

CSE 429  Software Engineering II  credit: 3 or 4 Hours. (https://courses.illinois.edu/schedule/terms/CSE/429/)
Same as CS 428. See CS 428.

CSE 440  Statistical Data Management  credit: 3 or 4 Hours. (https://courses.illinois.edu/schedule/terms/CSE/440/)
Same as CS 440. See STAT 440.

CSE 441  Introduction to Optimization  credit: 3 or 4 Hours. (https://courses.illinois.edu/schedule/terms/CSE/441/)
Same as ECE 490. See ECE 490.

CSE 448  Advanced Data Analysis  credit: 4 Hours. (https://courses.illinois.edu/schedule/terms/CSE/448/)
Same as STAT 448. See STAT 448.

CSE 450  Computational Mechanics  credit: 3 or 4 Hours. (https://courses.illinois.edu/schedule/terms/CSE/450/)
Same as TAM 470. See TAM 470.

CSE 451  Finite Element Analysis  credit: 3 or 4 Hours. (https://courses.illinois.edu/schedule/terms/CSE/451/)
Same as AE 420 and ME 471. See ME 471.

CSE 461  Computational Aerodynamics  credit: 3 or 4 Hours. (https://courses.illinois.edu/schedule/terms/CSE/461/)
Same as AE 410. See AE 410.

CSE 485  Atomic Scale Simulations  credit: 3 or 4 Hours. (https://courses.illinois.edu/schedule/terms/CSE/485/)
Same as MSE 485 and PHYS 466. See MSE 485.

CSE 498  Special Topics  credit: 1 to 4 Hours. (https://courses.illinois.edu/schedule/terms/CSE/498/)
Subject offerings of new and developing areas of knowledge in computational science and engineering intended to augment the existing curriculum. See Class Schedule or departmental course information for topics and prerequisites. 1 to 4 undergraduate hours. 1 to 4 graduate hours. May be repeated for a maximum of 6 hours in the same semester and up to 9 hours in separate semesters.

CSE 505  Computational Bioengineering  credit: 4 Hours. (https://courses.illinois.edu/schedule/terms/CSE/505/)
Same as BIOE 505. See BIOE 505.

CSE 510  Numerical Methods for PDEs  credit: 4 Hours. (https://courses.illinois.edu/schedule/terms/CSE/510/)
Same as CS 555 and MATH 552. See CS 555.

CSE 511  Iterative & Multigrid Methods  credit: 4 Hours. (https://courses.illinois.edu/schedule/terms/CSE/511/)
Same as CS 556. See CS 556.

CSE 512  Parallel Numerical Algorithms  credit: 4 Hours. (https://courses.illinois.edu/schedule/terms/CSE/512/)
Same as CS 554. See CS 554.

CSE 513  Topics in Numerical Analysis  credit: 4 Hours. (https://courses.illinois.edu/schedule/terms/CSE/513/)
Same as CS 558. See CS 558.

CSE 515  Algorithms  credit: 4 Hours. (https://courses.illinois.edu/schedule/terms/CSE/515/)
Same as CS 573. See CS 573.

CSE 517  Adv Finite Element Methods  credit: 4 Hours. (https://courses.illinois.edu/schedule/terms/CSE/517/)
Same as TAM 574. See TAM 574.
CSE 521  Computer Architecture  credit: 4 Hours. (https://courses.illinois.edu/schedule/terms/CSE/521/)
Same as ECE 511. See ECE 511.

CSE 522  Parallel Computer Architecture  credit: 4 Hours. (https://courses.illinois.edu/schedule/terms/CSE/522/)
Same as CS 533. See CS 533.

CSE 525  Computational Statistics  credit: 4 Hours. (https://courses.illinois.edu/schedule/terms/CSE/525/)
Same as STAT 525. See STAT 525.

CSE 527  Scientific Visualization  credit: 4 Hours. (https://courses.illinois.edu/schedule/terms/CSE/527/)
Same as CS 519. See CS 519.

CSE 530  Computational Electromagnetics  credit: 4 Hours. (https://courses.illinois.edu/schedule/terms/CSE/530/)
Same as ECE 540. See ECE 540.

CSE 532  Numerical Circuit Analysis  credit: 4 Hours. (https://courses.illinois.edu/schedule/terms/CSE/532/)
Same as ECE 552. See ECE 552.

CSE 542  Statistical Learning  credit: 4 Hours. (https://courses.illinois.edu/schedule/terms/CSE/542/)
Same as ASRM 551 and STAT 542. See STAT 542.

CSE 543  Topics in Image Processing  credit: 4 Hours. (https://courses.illinois.edu/schedule/terms/CSE/543/)
Same as ECE 547. See ECE 547.

CSE 551  Finite Element Methods  credit: 4 Hours. (https://courses.illinois.edu/schedule/terms/CSE/551/)
Same as CEE 570. See CEE 570.

CSE 552  Nonlinear Finite Elements  credit: 4 Hours. (https://courses.illinois.edu/schedule/terms/CSE/552/)
Same as CEE 576. See CEE 576.

CSE 553  Computational Inelasticity  credit: 4 Hours. (https://courses.illinois.edu/schedule/terms/CSE/553/)
Same as CEE 577. See CEE 577.

CSE 554  Computational Plates & Shells  credit: 4 Hours. (https://courses.illinois.edu/schedule/terms/CSE/554/)
Same as CEE 571. See CEE 571.

CSE 560  Computational Fluid Mechanics  credit: 4 Hours. (https://courses.illinois.edu/schedule/terms/CSE/560/)
Same as TAM 570. See TAM 570.

CSE 566  Numerical Fluid Dynamics  credit: 4 Hours. (https://courses.illinois.edu/schedule/terms/CSE/566/)
Same as ATMS 502. See ATMS 502.

CSE 576  Computational Chemical Biology  credit: 4 Hours. (https://courses.illinois.edu/schedule/terms/CSE/576/)
Same as BIOP 576 and CHEM 576. See CHEM 576.

CSE 598  Special Topics  credit: 1 to 4 Hours. (https://courses.illinois.edu/schedule/terms/CSE/598/)
Subject offerings of new and developing areas of knowledge in computational science and engineering intended to augment the existing curriculum. See Class Schedule or departmental course information for topics and prerequisites. 1 to 4 graduate hours. 1 to 4 professional hours. Approved for Letter and S/U grading. May be repeated for a maximum of 6 hours in the same semester and up to 9 hours in separate semesters.

Information listed in this catalog is current as of 06/2023