Doctoral Program

Coursework

Distribution constraints

Two of the ten courses must be in “theoretical computer science,” two must be in “programming languages and systems,” two must be in “applications.” At least one course taken at Yale must be a Computer Science course designated as “programming-intensive,” with a workload whose goal is to produce several thousand lines of code at a high level of proficiency. The courses in each of these categories currently (as of November 16, 2022) are, with new entries as of Spring 2023 in red:


Programming Languages and Systems: 513, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 533, 534, 535, 536, 537, 538, 539, 547, 550\(^2\), 554, 559, 625, 638, 639, and 647.

Applications: 510, 511, 512, 531, 532, 540\(^3\), 545, 546, 547, 551, 552, 553, 558, 559, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581\(^4\), 582, 583, 584, 585, 640, 670, 672, 676, 678, 679, 680, 745, and 752.

Programming-Intensive: 520, 521, 522, 524, 525, 526, 527, 539, 573, 578, 579, 625, and 639.

New courses are frequently added to the offerings in the department. A student should check with the DGS if they have questions about whether a Computer Science course not mentioned in the previous two paragraphs satisfies a particular requirement. Exceptions to these requirements and constraints may be made by the DGS.

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\(^1\)CPSC 581 is classified as theoretical for 2023 and later years
\(^2\)This refers to Advanced Databases which may also be listed as 540
\(^3\)This refers to the course Numerical Computation
\(^4\)CPSC 581 is classified as applications for 2022 and earlier years