

December

ADMISSIONS INFORMATION

Thank you for requesting information regarding the graduate program in Statistics. To apply for admission requires that you submit the UCLA Application for Graduate Admissions together with the UCLA Statistics Department Supplemental Application. Applicants are encouraged to apply electronically using the applications on the World Wide Web (see addresses below). If you prefer to receive hard copies of application forms, please contact the Graduate Advisor.

NOTE: The Statistics Department admits Ph D students ONLY in the fall quarter and the deadline for applying is December of the previous year. Students interested in applying to the terminal Masters program can apply year round.

Application Process

ITEMS TO BE RETURNED TO UCLA GRADUATE ADMISSIONS

Part A: UCLA Application for Graduate Admissions
Application Fee

ITEMS TO BE RETURNED TO UCLA STATISTICS DEPARTMENT

Statistics Department Supplemental Application
Transcripts (originals)
GRE scores
Fellowship Application
Part B: Supplementary Information
Part C: Statement of Purpose (UCLA seeks to achieve a diverse student body which is inclusive of individuals from cultural, linguistic, geographic, and socioeconomic backgrounds. If applicable, please reference these in your statement.)
Part D: Letters of Recommendation (letters from academic faculty)

Foreign applicants must send these additional items:
TOEFL scores or IELTS Scores
Confidential Financial Statement

Admissions Requirements

Prospective graduate students in statistics need not have an undergraduate Statistics major but must have completed at least twelve quarter courses (or eight semester courses) in substantial upper division quantitative work, preferably statistics. Applicants for the M.S. degree must have earned a cumulative grade point average of at least 3.0 in these upper division courses; applicants for the Ph.D. degree must have earned a cumulative grade point average of at least 3.5 in these upper division courses.

Applicants must take the Graduate Record Examination (GRE) General Test and must submit at least three letters of recommendation from people who can attest to their quantitative skills. Ph.D. students are also required to take the GRE Subject test in Mathematics.

Non US Citizens (this includes Permanent Residents) whose first language is not English are required to take either the TOEFL or IELTS exam. The exam should be taken in November but no later than January. If you have received a degree from a University in the United States you need not take the TOEFL.

Non US Citizens who would like to serve as a Teaching Assistant are recommended to also take the Test for Spoken English (TSE) exam. Before our Department can offer a Teaching Assistantship to any student they must have passed either the TSE or UCLA's SPEAK exam.

Financial Support

Almost all of our statistics graduate students receive financial support in the form of Teaching Assistants, Research Assistantships, and University and Extramural Fellowships. The support, which goes primarily to doctorate students, is usually for 3 years and may include registration fees and non-resident tuition. Students are generally provided a fifth year of support if they are advanced to candidacy by that time. United States citizens and permanent residents who receive nonresident tuition for their first year are expected to establish California residency by their second year.

Useful Web Links:

Statistics Department (department application)
www.stat.ucla.edu

Graduate Division (electronic UCLA Graduate Admission Application, admission fellowships, and student information)
www.gdnet.ucla.edu

Office of International Students & Scholars
www.asucla.edu/scl/oiss/jsc.htm

UCLA Home Page
www.ucla.edu

Student Catalog
www.ucla.edu/student/catalog

To request paper applications:
EMAIL: dacumos@stat.ucla.edu
PHONE: ()

Mailing Address:
UCLA Department of Statistics
A Math Sciences Bldg
Box
Los Angeles, CA

GRADUATE STUDIES

Master of Science Degree

Advising

The Vice Chair for Graduate Studies is the chief graduate advisor and heads a committee of faculty advisors whose fields of expertise span most of the major areas of statistics. Each student is required to meet with a faculty advisor for planning the course of study. This faculty advisor becomes the student's academic advisor.

Academic advisors are responsible for monitoring students' progress toward their degree objective and approves students' study lists each quarter.

Areas of Study

The strengths of current and prospective faculty dictate the specific fields of emphasis in the department: computational statistics, applied multivariate analysis, social statistics, evaluation, bioinformatics, statistical methods in various areas in science and technology.

Course Requirements

Eleven courses are required for the M.S. degree, of which at least eight must be graduate courses, while the remaining three may be approved upper division courses. With consent of the Graduate Vice Chair, students may take up to five of the required eleven courses in other departments, provided that these courses are in professional or scientific fields closely related to research in statistics.

Students are strongly encouraged to take Statistics 300, 301, and 302. These courses contain core materials for the qualifying exam.

Master students who come in with minimal training should take 300, 301, and 302 and not the 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000.

Finally, **upon Departmental and University approval**, a maximum of two equivalent courses taken before entering the program can be used to waive certain course requirements. However, every student still has to earn credit for a minimum of 10 courses after entering the program. As per University rules, the courses you choose on transferring **cannot** have been used for any degree that you received.

All courses must be passed with the grade of B- or better
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Thesis Plan

A student must find a thesis advisor for approving the topic and form of the thesis. The final version of the thesis has to be approved by the thesis advisor and two other faculty members.

Time to Degree

Students are expected to complete the requirements for the M.S. degree in seven quarters of full-time study.

Doctoral Degree

Advising

The Vice Chair for Graduate Studies is the chief graduate advisor and heads a committee of faculty advisors whose fields of expertise span most of the major areas of statistics.

Each student is required to meet with a faculty advisor for planning the course of study. This faculty advisor becomes the student's academic advisor.

Academic advisors are responsible for monitoring students' progress toward their degree objective and approves students' study lists each quarter. Academic advisors do not necessarily become students' thesis advisors. In fact, students are encouraged to find their thesis advisors as early as possible. Once a thesis advisor is decided, he/she becomes the student's academic advisor as well. To locate an area of interest, students are encouraged to contact faculty members as early as possible.

Major Fields or Subdisciplines

The strengths of current and prospective faculty dictate the specific fields of emphasis in the department: computational and computer intensive statistics, applied multivariate analysis, social statistics, evaluation, bioinformatics, statistical methods in various areas in science and technology.

Course Requirements

Students are required to pass approved graduate courses with a grade of A or B for a total of _____ unit of credit. Some of these courses are encouraged to be taken outside the department in professional or scientific fields closely related to research in statistics.

Students are strongly encouraged to take Statistics _____, _____, _____, and _____. These courses contain core material for the qualifying exam.

Finally, **upon Departmental and University approval**, a maximum of _____ equivalent units taken before entering the program can be used to waive certain course

requirements. However, every student still has to earn credit for a minimum of units after entering the program. As per University rules, the courses you choose on transferring **cannot** have been used for any degree that you received.

All courses must be passed with the grade of B or better

Written and Oral Qualifying Examinations

Comprehensive Examination Plan

Students must pass the applied and the theoretical parts of the statistics qualifying examinations. The examination is offered toward the end of the Spring Quarter and is three hours long for each part. Students should take the exam early and must pass the test within two years of entering into the program. Failing to meet this requirement is an unsatisfactory academic performance and the permission for continued enrollment will be subject to the department's review and approval.

Qualifying Oral Examinations

Students should choose a faculty dissertation committee and take their qualifying oral as soon as possible. The committee should consist of at least four members, three of which must be from the Department of Statistics.

Advancement to Candidacy

Students are advanced to candidacy upon completion of the written and a preliminary oral exam. The Candidate in Philosophy degree is awarded in the quarter the student is advanced to candidacy.

Final Oral Examination (Defense of the Dissertation)

A final oral exam is required.

Time to Degree

Students should take the written qualifying examinations for the Ph.D. degree within seven quarters of full-time work. Completion of the degree normally takes no more than five years.

Termination of Graduate Study and Appeal of Termination

University Policy

A student who fails to meet the above requirements may be recommended for termination of graduate study. A graduate student may be disqualified from continuing in the graduate program for a variety of reasons. The most common is failure to maintain the minimum cumulative grade point average () required by the Academic Senate to remain in good standing (some programs require a higher grade point average). Other examples include failure of examinations, lack of timely progress toward the degree, and poor performance.

in core courses Probationary students (those with cumulative grade point averages below) are subject to immediate dismissal upon the recommendation of their department University guidelines governing termination of graduate students including the appeal procedure are outlined in Standards and Procedures for Graduate Study at UCLA

Special Departmental or Program Policy

M S

A student who does not complete all the requirements for the M S within seven quarters of full time study is subject to a recommendation for termination The Graduate Vice Chair decides in each case whether termination is warranted A student may appeal a recommendation for termination to the Graduate Studies Committee which makes the final decision on this matter

Ph D

A student who does not Advance to Candidacy within seven quarters of full time study AND take the written qualifying examinations within four quarters of full time study is subject to a recommendation for termination The graduate vice chair informs a student of such a recommendation and the student is asked to submit a written appeal to solicit letters of support from members of the faculty The appeal is considered by the Graduate Studies Committee which make the final decision by vote as to whether the student is allowed to remain in the program

UCLA DEPARTMENT OF STATISTICS RECOMMENDED READING LIST FOR QUALIFYING EXAMS

Ph.D. Exam

Statistics Ph.D. qualifying examinations are made up of the following items

A comprehensive written exam that has two parts

Part I is on such theoretical topics as distributions, estimation, testing, maximum likelihood estimation, asymptotic theory, Bayes rules, etc. These are topics covered in the courses STAT 300A and 300B. Part II is on applied topics such as linear models, categorical data, sampling, study designs, etc. These are topics covered in the courses STAT 300C and 300D. The theory part of the exam is given on the morning of the ninth Saturday of Spring Quarter; the applied part of the exam is given that afternoon. Normal progress means a student will pass his/her written exams at the conclusion of the first year of graduate study. Here are lists of relevant books for study.

Statistical theory

Bickel and Doksum: Mathematical Statistics: Basic Ideas and Selected Topics
Casella and Berger: Statistical Inference
Cox and Hinkley: Theoretical Statistics
Ferguson: Mathematical Statistics
Ferguson: A Course in Large Sample Theory

Applied statistics

Cook and Weisburg: An Introduction to Regression Graphics
Cox and Snell: Applied Statistics: Principles and Examples
Efron and Tibshirani: An Introduction to the Bootstrap
Freedman, Pisani, and Purves: Statistics
McCullagh and Nelder: Generalized Linear Models
Ripley and Venables: Modern Applied Statistics with S Plus

M.S. Exam

Statistics Masters candidates take the same written qualifying examination as do Ph.D. students. There are two parts to the exam. Part I is on such theoretical topics as distributions, estimation, testing, MLE, asymptotic theory, Bayes rules, etc. These are topics covered in the courses STAT 430ABC and 430AB. Part II is on applied topics such as linear models, categorical data, sampling, study designs, etc. These are topics covered in the courses STAT 430AB and 430AB. The two parts are given on the eighth or ninth Saturday of the Spring quarter of the first year of study. Students are expected to pass the examination by the end of their second year. The level of passing score is set lower for a Masters pass than for a Ph.D. pass. Here are lists of pertinent books for study.

Statistical theory

Bickel and Doksum: Mathematical Statistics: Basic Ideas and Selected Topics
Casella and Berger: Statistical Inference
Cox and Hinkley: Theoretical Statistics
Ferguson: Mathematical Statistics
Ferguson: A Course in Large Sample Theory

Applied statistics

Cook and Weisburg: An Introduction to Regression Graphics
Cox and Snell: Applied Statistics: Principles and Examples
Efron and Tibshirani: An Introduction to the Bootstrap
Freedman, Pisani, and Purves: Statistics
McCullagh and Nelder: Generalized Linear Models
Rosenbaum: Observational Studies
Ripley and Venables: Modern Applied Statistics with S Plus

Notes

Written examinations given in prior years are available for reference. Examples of well-written applied statistical analyses can be found in the Cox and Snell book. Examples of case studies, reviews, and methodology papers can be found in such statistical journals as *Statistical Science* and *Journal of the American Statistical Association*.

FACULTY RESEARCH INTEREST

Berk Richard	Applied statistics statistical applications in the environmental sciences the statistical evaluation of complex computer models
Bentler Peter	Multivariate analysis with special emphasis on latent variable models
De Leeuw Jan	Data analysis multivariate analysis computational statistics
Deng Lih Yuan	Random variate generation design of experiments sample surveys
Dinov Ivo	Mathematical and statistical modeling brain mapping decision theory wavelet analysis computational techniques
Esfandiari Mahtash	Teaching of statistics and the factors that impact the attitude of students toward the discipline of statistics
Ferguson Tom	Statistics Game theory
Gould Rob	Education repeated measures analysis
Kreuter Frauke	Survey sampling evaluation research criminology
Leamer Ed	Inference from non experimental data Sensitivity analysis Applied Econometrics
Lew Vivian	Statistical packages government and business statistics
Li Ker chau	Dimension reduction data visualization time series images and gene expression
Jennrich Robert	Statistical computing design nonlinear regression
Muthen Bengt	Analysis of categorical data latent variable models
Paik Schoenberg Rick	Point processes image analysis time series and applications especially in seismology and fire ecology
Paul Chris	Dealing with missing data Decision Making Elites and Teaching Statistics
Pearl Judea	Probabilistic & causal reasoning nonstandard logics
Sabatti Chiara	Markov Chain Monte Carlo; Bayesian Statistics; Statistical Genetics
Sanchez Juana	Hierarchical models Bayesian analysis time series statistics in diabetes research Economics and health policy
Wu Yingnian	Representation Perception and Learning in Vision
Xu Hongquan	Experimental Design Bioinformatics Data Mining Computer Experiments
Ylvisaker Don	Design theory applied Statistics