

Web Address - <http://www.registrar.caltech.edu/>**KEY TO ABBREVIATIONS****LOCATIONS**

| | | | |
|---------|--|----------|---|
| ALLES | Alles Laboratory | HAM | Hameetman Center |
| ANB | Annenberg Center for Information Science and Technology | JRG | Jorgensen Laboratory |
| ARM | Arms Laboratory of Geological Sciences | KCK | Keck Engineering Laboratory |
| AVE | Avery House | KRK | Kerckhoff Laboratory of Biological Sciences |
| BAC | Braun Athletic Center | KSP | Keith Spaulding Building |
| BAX | Baxter Hall of Humanities and Social Services | LAU | Lauritsen Physics Laboratory |
| BBB | Beckman Laboratory of Behavioral Biology | LINDE | Ronald and Maxine Linde Hall of Mathematics and Physics |
| BCK | Beckman Institute | LLB | Ronald and Maxine Linde Laboratory for Global Environmental Science |
| BCK AUD | Beckman Auditorium | MLKN | Robert A. Millikan Memorial Building |
| BRD | Broad Center | MRE | Moore Laboratory |
| BRG | Bridge Laboratory of Physics | NMD | North Mudd Building of Geological Sciences |
| BRN | Braun Laboratory | NYS | Noyes Laboratory of Chemical Physics |
| BRW | Brown Gym | NewMedia | NewMedia Classroom |
| CHL | Cahill Center for Astronomy and Astrophysics | POLY | Polytechnic School |
| CHR | Church Laboratory of Chemical Biology | PWB | Powell/Booth Laboratory |
| CNRB | Tianqiao and Chrissy Chen Neuroscience Research Building | REMOTE | |
| CRL | Crellin Chemistry Laboratory | RSC | Resnick Sustainability Center |
| CSS | Center for Student Services | SCH | Schlinger Laboratory |
| Caltech | | SFL | Sherman Fairchild Library |
| DAB | Dabney Hall of Humanities | SMD | South Mudd Building of Geophysics and Planetary Sciences |
| DWN | Downs Physics Laboratory | SPL | Spalding Laboratory of Chemical Engineering |
| FIR | Firestone Flight Science Laboratory | STL | Steele Laboratory of Electrical Engineering |
| GCL | Gates Chemical Laboratory | TCT | Theater Arts at Caltech (TACIT) |
| GTL | Gates-Thomas Engineering Laboratory | WAT | Watson Laboratory of Applied Physics |
| GUG | Guggenheim Laboratory | YHC | Young Health Center |

GRADING SCHEME

G = Grades Only
 P = Pass/Fail Only
 Blank = Grades/may exercise P/F

TIMES/LOCATION/UNITS

A = Hours/Location to be Arranged
 + = Units to be Arranged
 OM = Organizational Meeting

DAYS OF THE WEEK

| | |
|---------------|--------------|
| M = Monday | R = Thursday |
| T = Tuesday | F = Friday |
| W = Wednesday | S = Saturday |
| | U = Sunday |

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| Course Offering | Units | Offering Title | Section | Instructor | Days/Time | Location | Grade Scheme |
|-------------------|-------|---|---------|-----------------|-------------------|----------|--------------|
| AEROSPACE | | | | | | | |
| Ae 100 | + | Research in Aerospace | 01 | Gharib, M | A | A | P |
| | | | 02 | McKeon, B | A | A | P |
| | | | 03 | Chung, S | A | A | P |
| | | | 04 | Pellegrino, S | A | A | P |
| | | | 05 | Blanquart, G | A | A | P |
| | | | 06 | Shepherd, J | A | A | P |
| | | | 07 | Meiron, D | A | A | P |
| | | | 08 | Meiron, D | A | A | P |
| | | | 09 | Bae, H | A | A | P |
| | | | 10 | Rosakis, A | A | A | P |
| Ae/APh/CE/ME 101B | 3-0-6 | Fluid Mechanics | 01 | Pullin, D | MWF 10:00 - 10:55 | 133 GUG | G |
| Ae/AM/CE/ME 102B | 3-0-6 | Mechanics of Structures and Solids | 01 | Ravichandran, G | TR 09:00 - 10:25 | 115 GTL | G |
| Ae 103B | 3-0-6 | Aerospace Control Systems | 01 | Staff | MW 14:30 - 15:55 | 232 GUG | |
| Ae/APh 104B | 0-6-3 | Experimental Methods | 01 | Dabiri, J | A | A | G |
| Ae 105B | 2-4-3 | Space Engineering | 01 | Watkins, M | TR 14:30 - 15:55 | A | |
| CE/Ae/AM 108B | 3-5-1 | Computational Mechanics | 01 | Ramarathinam, N | MTR 11:00 - 11:55 | 390 FIR | P |
| Ae 121B | 3-0-6 | Space Propulsion | 01 | Polk, J | TR 13:00 - 14:25 | 133 GUG | |
| Ae 150B | 1-0-0 | Aerospace Engineering Seminar | 01 | Austin, J | M 13:00 - 13:55 | 133 GUG | P |
| Ae/CE 165B | 2-2-5 | Mechanics of Composite Materials and Structures | 01 | Pellegrino, S | TR 16:00 - 16:55 | 390 FIR | G |

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| AEROSPACE | | | | | | | |
| Ae 200 | + | Advanced Research in Aerospace | 01 | Schneider, T | A | A | P |
| | | | 02 | Burdick, J | A | A | P |
| | | | 03 | Colonus, T | A | A | P |
| | | | 04 | Dimotakis, P | A | A | P |
| | | | 05 | Gharib, M | A | A | P |
| | | | 06 | Hornung, H | A | A | P |
| | | | 07 | Bhattacharya, K | A | A | P |
| | | | 08 | Leonard, A | A | A | P |
| | | | 09 | Murray, R | A | A | P |
| | | | 10 | Ortiz, M | A | A | P |
| | | | 11 | Pullin, D | A | A | P |
| | | | 12 | Ravichandran, G | A | A | P |
| | | | 13 | Rosakis, A | A | A | P |
| | | | 14 | McKeon, B | A | A | P |
| | | | 15 | Pellegrino, S | A | A | P |
| | | | 16 | Shepherd, J | A | A | P |
| | | | 17 | Blake, G | A | A | P |
| | | | 18 | Lapusta, N | A | A | P |
| | | | 19 | Troian, S | A | A | P |
| | | | 20 | Daraio, C | A | A | P |
| | | | 21 | Blanquart, G | A | A | P |
| | | | 23 | Greer, J | A | A | P |
| | | | 24 | Gurnis, M | A | A | P |
| | | | 25 | Minnich, A | A | A | P |
| | | | 26 | Johnson, J | A | A | P |
| | | | 27 | Austin, J | A | A | P |
| | | | 28 | Kulkarni, S | A | A | P |
| | | | 29 | Chung, S | A | A | P |
| | | | 30 | Asimaki, D | A | A | P |
| | | | 31 | Dabiri, J | A | A | P |
| | | | 32 | Meiron, D | A | A | P |
| | | | 33 | Hunt, M | A | A | P |
| | | | 34 | Dickinson, M | A | A | P |

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| AEROSPACE | | | | | | | |
| Ae 200 | + | Advanced Research in Aerospace | 35 | Mawet, D | A | A | P |
| | | | 36 | Bae, H | A | A | P |
| | | | 37 | Kornfield, J | A | A | P |
| | | | 38 | Lozano Duran, A | A | A | P |
| Ae 201B | 3-0-6 | Advanced Fluid Mechanics | 01 | Pullin, D | MWF 08:00 - 08:55 | 133 GUG | |
| Ae 208B | 1-0-0 | GALCIT Colloquium | 01 | Gharib, M | F 15:00 - 15:55 | 133 GUG | P |
| Ae/ACM/ME 232A | 3-0-6 | Computational Fluid Dynamics | 01 | Bae, H | TR 14:30 - 15:55 | 384 FIR | P |
| Ae 237A | 3-0-6 | Nonsteady Gasdynamics | 01 | Austin, J | TR 13:00 - 14:30 | A | |
| Ae 240 | + | Special Topics in Fluid Mechanics <i>Sec 1: Educational Exchange</i> | 01 | Austin, J | A | A | P |
| ME/Ge/Ae 266B | 3-0-6 | Fracture and Frictional Faulting | 01 | Lapusta, N | MW 14:30 - 15:55 | 115 GTL | |
| ANTHROPOLOGY | | | | | | | |
| An 097 | + | Undergraduate Research | 01 | Staff | A | A | P |
| APPLIED & COMPUTATIONAL MATH | | | | | | | |
| ACM080B | + | Undergraduate Thesis | 01 | Saito, K | A | A | P |
| | | | 02 | Bruno, O | A | A | P |
| | | | 03 | Anandkumar, A | A | A | P |
| | | | 04 | Schroeder, P | A | A | P |
| ACM081B | + | Undergraduate Projects in Applied and Computational Mathematics | 01 | Chandrasekaran, V | A | A | P |
| | | | 02 | Wierman, A | A | A | P |
| | | | 03 | Zuev, K | A | A | P |
| | | | 04 | Leong, O | A | A | P |
| | | | 05 | Hoffmann, F | A | A | P |

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|---|-------|---|---------|-------------|-------------------|-----------|--------------|
| APPLIED & COMPUTATIONAL MATH | | | | | | | |
| ACM081B | + | Undergraduate Projects in Applied and Computational Mathematics | 06 | Stuart, A | A | A | P |
| | | | 07 | Bruno, O | A | A | P |
| | | | 08 | Tropp, J | A | A | P |
| ACM095A | 4-0-8 | Introductory Methods of Applied Mathematics for the Physical Sciences | 01 | Zuev, K | MWF 11:00 - 12:15 | 125 KRK | |
| ACM100A | 4-0-8 | Introductory Methods of Applied Mathematics for the Physical Sciences | 01 | Zuev, K | MWF 11:00 - 12:15 | 125 KRK | |
| ACM/IDS 101B | 4-4-4 | Methods of Applied Mathematics | 01 | Bruno, O | MW 10:00 - 11:55 | 213 ANB | |
| ACM/EE 106B | 3-0-9 | Introductory Methods of Computational Mathematics | 01 | Hou, Y | TR 13:00 - 14:25 | 104 ANB | G |
| Ec/ACM/CS 112 | 3-0-6 | Bayesian Statistics | 01 | Rangel, A | TR 10:30 - 11:55 | B122 GTS | |
| ACM118 | 3-0-9 | Stochastic Processes and Regression | 01 | Owhadi, H | MW 13:00 - 14:25 | 104 ANB | G |
| Ma/ACM/IDS 140B | 3-0-6 | Probability | 01 | Staff | A | 187 LINDE | |
| ACM/IDS 154 | 3-0-6 | Inverse Problems and Data Assimilation | 01 | Carlson, E | TR 10:30 - 11:55 | 213 ANB | |
| ACM190 | + | Reading and Independent Study | 01 | Bruno, O | A | A | P |
| | | | 02 | Hoffmann, F | A | A | P |
| | | | 03 | Stuart, A | A | A | P |
| | | | 04 | Baptista, R | A | A | P |
| ACM/IDS 216 | 3-0-6 | Markov Chains, Discrete Stochastic Processes and Applications | 01 | Owhadi, H | TR 09:00 - 10:25 | 104 ANB | G |
| Ae/ACM/ME 232A | 3-0-6 | Computational Fluid Dynamics | 01 | Bae, H | TR 14:30 - 15:55 | 384 FIR | P |
| ACM256 | 3-0-6 | Special Topics in Applied Mathematics | 01 | Hoffmann, F | MW 10:00 - 11:25 | 104 ANB | |

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|---|-------|---|---------|-------------------|-------------------|----------|--------------|
| APPLIED & COMPUTATIONAL MATH | | | | | | | |
| ACM300 | + | Research in Applied and Computational Mathematics | 01 | Bruno, O | A | A | P |
| | | | 02 | Chandrasekaran, V | A | A | P |
| | | | 03 | Hoffmann, F | A | A | P |
| | | | 04 | Hou, Y | A | A | P |
| | | | 05 | Tropp, J | A | A | P |
| | | | 06 | Meiron, D | A | A | P |
| | | | 07 | Pierce, N | A | A | P |
| | | | 08 | Owhadi, H | A | A | P |
| | | | 09 | Schroeder, P | A | A | P |
| | | | 10 | Hassibi, B | A | A | P |
| | | | 11 | Beck, J | A | A | P |
| | | | 12 | Stuart, A | A | A | P |
| | | | 13 | Graber, T | A | A | P |
| APPLIED MECHANICS | | | | | | | |
| Ae/AM/CE/ME 102B | 3-0-6 | Mechanics of Structures and Solids | 01 | Ravichandran, G | TR 09:00 - 10:25 | 115 GTL | G |
| CE/Ae/AM 108B | 3-5-1 | Computational Mechanics | 01 | Ramarathinam, N | MTR 11:00 - 11:55 | 390 FIR | P |
| AM/CE/ME 150B | 1-0-0 | Graduate Engineering Seminar | 01 | Lapusta, N | R 11:00 - 11:55 | 135 GTL | P |
| AM 300 | + | Research in Applied Mechanics | 01 | Lapusta, N | A | A | P |
| | | | 02 | Bhattacharya, K | A | A | P |
| | | | 03 | Andrade, J | A | A | P |
| | | | 04 | Avouac, J | A | A | P |
| | | | 05 | Murray, R | A | A | P |
| | | | 06 | Ortiz, M | A | A | P |
| | | | 07 | Phillips, R | A | A | P |
| | | | 08 | Ravichandran, G | A | A | P |
| | | | 09 | Fu, X | A | A | P |
| | | | 10 | Greer, J | A | A | P |
| APPLIED PHYSICS | | | | | | | |

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| APPLIED PHYSICS | | | | | | | |
| APh/EE 023 | 3-0-6 | Demonstration Lectures in Classical and Quantum Photonics | 01 | Matsko, A | TR 09:00 - 10:25 | 142 KCK | |
| EE/APh 040 | 3-0-6 | Physics of Electrical Engineering | 01 | Marandi, A | MW 13:00 - 14:25 | B280 MRE | |
| APh078B | + | Senior Thesis, Experimental | 01 | Faraon, A | A | A | P |
| | | | 02 | Scherer, A | A | A | P |
| | | | 03 | Phillips, R | A | A | P |
| | | | 04 | Painter, O | A | A | P |
| | | | 05 | Vahala, K | A | A | P |
| | | | 06 | Atwater, H | A | A | P |
| | | | 07 | Bellan, P | A | A | P |
| | | | 08 | Troian, S | A | A | P |
| | | | 09 | Yung, Y | A | A | P |
| | | | 10 | Schwab, K | A | A | P |
| | | | 11 | Knutson, H | A | A | P |
| | | | 12 | Endres, M | A | A | P |
| | | | 13 | Hajimiri, S | A | A | P |
| | | | 14 | Fultz, B | A | A | P |
| APh079B | + | Senior Thesis, Theoretical | 01 | Goddard, W | A | A | P |
| | | | 02 | Troian, S | A | A | P |
| | | | 03 | Kimble, H | A | A | P |
| APh100 | + | Advanced Work in Applied Physics | 01 | Atwater, H | A | A | P |
| | | | 02 | Faraon, A | A | A | P |
| | | | 03 | Painter, O | A | A | P |
| | | | 04 | Scherer, A | A | A | P |
| | | | 05 | Troian, S | A | A | P |
| | | | 07 | Roukes, M | A | A | P |
| | | | 08 | Yang, C | A | A | P |
| | | | 09 | Bellan, P | A | A | P |
| | | | 10 | Phillips, R | A | A | P |
| | | | 12 | Minnich, A | A | A | P |
| | | | 13 | Kimble, H | A | A | P |

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| APPLIED PHYSICS | | | | | | | |
| APh100 | + | Advanced Work in Applied Physics | 15 | Falson, J | A | A | P |
| | | | 16 | Marandi, A | A | A | P |
| Ae/APh/CE/ME 101B | 3-0-6 | Fluid Mechanics | 01 | Pullin, D | MWF 10:00 - 10:55 | 133 GUG | G |
| Ae/APh 104B | 0-6-3 | Experimental Methods | 01 | Dabiri, J | A | A | G |
| APh/MS/ME 105B | 3-0-6 | States of Matter <i>makeup sessions held Fridays 1:00pm-2:30pm in Watson 104</i> | 01 | Troian, S | MW 13:00 - 14:25 | 104 WAT | |
| APh/EE 109 | 0-6-3 | Introduction to the Micro/Nanofabrication Lab | 01 | Ghaffari, A | OM,W 16:00 - 16:55 | 104 WAT | |
| APh110 | 2-0-0 | Topics in Applied Physics | 01 | Bellan, P | M 12:00 - 12:55 | 104 WAT | P |
| APh114B | 3-0-6 | Solid-State Physics | 01 | Nad Perge, S | MWF 09:00 - 09:55 | 104 WAT | |
| Ph/APh/EE/BE 118A | 3-0-6 | Physics of Measurement | 01 | Roukes, M | TR 14:30 - 15:55 | 387 LINDE | |
| APh156B | 3-0-6 | Plasma Physics | 01 | Bellan, P | MW 14:30 - 15:55 | 104 WAT | |
| EE/APh 158 | 3-0-6 | Quantum Electrical Circuits | 01 | Mirhosseini, M | MW 10:30 - 11:55 | B280 MRE | |
| BE/Bi/APh 161 | 3-0-9 | Physical Biology of the Cell | 01 | Bois, J | MW 14:30 - 15:55 | 100 - Rock Auditorium BRD | |
| MS/APh 162 | 3-0-6 | Electronic Structure of Materials | 01 | Falson, J | TR 10:30 - 11:55 | 104 WAT | |
| APh/EE 190A | 3-0-6 | Quantum Electronics | 01 | Vahala, K | TR 13:00 - 14:25 | 142 KCK | |
| APh200 | + | Applied Physics Research | 01 | Atwater, H | A | A | P |
| | | | 02 | Fultz, B | A | A | P |

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| APPLIED PHYSICS | | | | | | | |
| APh200 | + | Applied Physics Research | 03 | Bellan, P | A | A | P |
| | | | 04 | Chen, Y | A | A | P |
| | | | 05 | Johnson, W | A | A | P |
| | | | 06 | Schwab, K | A | A | P |
| | | | 07 | Goddard, W | A | A | P |
| | | | 08 | Lewis, N | A | A | P |
| | | | 09 | Troian, S | A | A | P |
| | | | 10 | Preskill, J | A | A | P |
| | | | 11 | Refael, G | A | A | P |
| | | | 12 | Faraon, A | A | A | P |
| | | | 13 | Lewis, N | A | A | P |
| | | | 14 | Alicea, J | A | A | P |
| | | | 15 | Hsieh, D | A | A | P |
| | | | 16 | Minnich, A | A | A | P |
| | | | 17 | Yang, C | A | A | P |
| | | | 18 | Gharib, M | A | A | P |
| | | | 19 | Painter, O | A | A | P |
| | | | 20 | Phillips, R | A | A | P |
| | | | 21 | Bernardi, M | A | A | P |
| | | | 22 | Kimble, H | A | A | P |
| | | | 23 | Roukes, M | A | A | P |
| | | | 24 | Nad Perge, S | A | A | P |
| | | | 25 | Scherer, A | A | A | P |
| | | | 26 | Hutzler, N | A | A | P |
| | | | 28 | Yeh, N | A | A | P |
| | | | 29 | Endres, M | A | A | P |
| | | | 30 | Vahala, K | A | A | P |
| | | | 31 | Yariv, A | A | A | P |
| | | | 32 | Rosenbaum, T | A | A | P |
| | | | 33 | Adhikari, R | A | A | P |
| | | | 34 | Meiron, D | A | A | P |
| | | | 35 | Elowitz, M | A | A | P |
| | | | 36 | Bock, J | A | A | P |

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| APPLIED PHYSICS | | | | | | | |
| APh200 | + | Applied Physics Research | 37 | Cushing, S | A | A | P |
| | | | 38 | Falson, J | A | A | P |
| | | | 39 | Motrunich, O | A | A | P |
| | | | 40 | Spiropulu, M | A | A | P |
| | | | 41 | Marandi, A | A | A | P |
| | | | 42 | Daraio, C | A | A | P |
| | | | 43 | Mirhosseini, M | A | A | P |
| | | | 44 | Chan, G | A | A | P |
| | | | 45 | Schneider, T | A | A | P |
| | | | 46 | Burdick, J | A | A | P |
| Ph/APh 223A | 3-0-6 | Advanced Condensed-Matter Physics | 01 | Alicea, J | MW 09:00 - 10:25 | 103 DWN | |
| APh300 | + | Thesis Research in Applied Physics | 01 | Faraon, A | A | A | P |
| | | | 02 | Bellan, P | A | A | P |
| | | | 03 | Flagan, R | A | A | P |
| | | | 04 | Refael, G | A | A | P |
| | | | 05 | Cushing, S | A | A | P |
| | | | 06 | Troian, S | A | A | P |
| | | | 07 | Fultz, B | A | A | P |
| | | | 08 | Schwab, K | A | A | P |
| | | | 10 | Hsieh, D | A | A | P |
| | | | 11 | Faber, K | A | A | P |
| | | | 12 | Hutzler, N | A | A | P |
| | | | 13 | Minnich, A | A | A | P |
| | | | 15 | Phillips, R | A | A | P |
| | | | 16 | Daraio, C | A | A | P |
| | | | 17 | Rosenbaum, T | A | A | P |
| | | | 18 | Roukes, M | A | A | P |
| | | | 20 | Scherer, A | A | A | P |
| 21 | Chen, Y | A | A | P | | | |
| 24 | Vahala, K | A | A | P | | | |
| | | | 25 | Yariv, A | A | A | P |

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| APPLIED PHYSICS | | | | | | | |
| APh300 | + | Thesis Research in Applied Physics | 28 | Painter, O | A | A | P |
| | | | 29 | Zmuidzinas, J | A | A | P |
| | | | 30 | Atwater, H | A | A | P |
| | | | 31 | Bernardi, M | A | A | P |
| | | | 32 | Nad Perge, S | A | A | P |
| | | | 33 | Marandi, A | A | A | P |
| | | | 34 | Falson, J | A | A | P |
| | | | 35 | Endres, M | A | A | P |
| | | | 36 | Burdick, J | A | A | P |
| ASTROPHYSICS | | | | | | | |
| Ge/Ay 011C | 3-0-6 | Introduction to Earth and Planetary Sciences: Planetary Sciences | 01 | Brown, M | TR 10:30 - 11:55 | 162 SMD | |
| Ay 021 | 3-0-6 | Galaxies and Cosmology <i>Not open to seniors. Open to first-years with instructor approval.</i> | 01 | Djorgovski, S | MW 14:00 - 14:55 F 14:00 - 14:55 | Hameetman Aud CHL 219 CHL | |
| Ay 031 | 1-0-2 | Writing in Astronomy | 01 | Mawet, D | F 15:00 - 15:55 | 219 CHL | G |
| Ay 043 | + | Reading in Astronomy and Astrophysics | 01 | Staff | A | A | P |
| Ay 078B | + | Senior Thesis | 01 | Bock, J | A | A | P |
| | | | 02 | Fuller, J | A | A | P |
| | | | 03 | Hillenbrand, L | A | A | P |
| | | | 04 | Steidel, C | A | A | P |
| | | | 05 | Cohen, J | A | A | P |
| | | | 06 | Phinney, E | A | A | P |
| | | | 07 | Howard, A | A | A | P |
| | | | 08 | Martin, C | A | A | P |
| | | | 09 | Prince, T | A | A | P |
| | | | 10 | Harrison, F | A | A | P |
| | | | 11 | Hallinan, G | A | A | P |
| | | | 12 | Scoville, N | A | A | P |

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| ASTROPHYSICS | | | | | | | |
| Ay 078B | + | Senior Thesis | 13 | Hopkins, P | A | A | P |
| | | | 14 | Djorgovski, S | A | A | P |
| | | | 15 | Knutson, H | A | A | P |
| | | | 16 | Kasliwal, M | A | A | P |
| | | | 17 | Mawet, D | A | A | P |
| | | | 18 | Blake, G | A | A | P |
| | | | 19 | Ravi, V | A | A | P |
| | | | 20 | El-Badry, K | A | A | P |
| | | | 21 | El-Badry, K | A | A | P |
| | | | 22 | Batygin, K | A | A | P |
| Ay 102 | 3-0-6 | Physics of the Interstellar Medium | 01 | Phinney, E | MWF 13:00 - 13:55 | 219 CHL | |
| Ay 111B | 1-0-0 | Introduction to Current Astrophysics Research | 01 | Djorgovski, S | F 11:00 - 11:55 | 219 CHL | P |
| Ge/Ay 117 | 3-0-6 | Bayesian Statistics and Data Analysis | 01 | Knutson, H | MWF 14:00 - 14:55 | 162 SMD | |
| Ay 122B | 3-0-6 | Astronomical Measurements and Instrumentation | 01 | Hallinan, G / Kulkarni, S | TR 16:00 - 17:25 | 219 CHL | |
| Ay 124 | 3-0-6 | Structure and Evolution of Galaxies | 01 | Hopkins, P / El-Badry, K | MW 10:30 - 11:55 | 219 CHL | |
| Ay 125 | 3-0-6 | High-Energy Astrophysics | 01 | Kasliwal, M | TR 10:30 - 11:55 | 219 CHL | |
| Ge/Ay 132 | 3-0-6 | Atomic and Molecular Processes in Astronomy and Planetary Sciences | 01 | Blake, G | TR 14:30 - 15:55 | 162 SMD | |
| Ge/Ay 137 | 3-0-6 | Planetary Physics | 01 | Batygin, K | MWF 13:00 - 13:55 | 176 SMD | |
| Ay 141B | 1-0-1 | Research Conference in Astronomy | 01 | Kasliwal, M | F 16:00 - 16:55 | 370 CHL | P |

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| Course Offering | Units | Offering Title | Section | Instructor | Days/Time | Location | Grade Scheme |
|---------------------|-------|--|---------|----------------|-----------|----------|--------------|
| ASTROPHYSICS | | | | | | | |
| Ay 142 | + | Research in Astronomy and Astrophysics | 01 | Fuller, J | A | A | P |
| | | | 02 | Blake, G | A | A | P |
| | | | 03 | Harrison, F | A | A | P |
| | | | 04 | Brown, M | A | A | P |
| | | | 05 | Phinney, E | A | A | P |
| | | | 06 | Djorgovski, S | A | A | P |
| | | | 07 | Howard, A | A | A | P |
| | | | 08 | Kasliwal, M | A | A | P |
| | | | 09 | Hillenbrand, L | A | A | P |
| | | | 10 | Fuller, J | A | A | P |
| | | | 11 | Kulkarni, S | A | A | P |
| | | | 12 | Hallinan, G | A | A | P |
| | | | 13 | Martin, C | A | A | P |
| | | | 14 | Bock, J | A | A | P |
| | | | 15 | Golwala, S | A | A | P |
| | | | 16 | Prince, T | A | A | P |
| | | | 17 | Hopkins, P | A | A | P |
| | | | 18 | El-Badry, K | A | A | P |
| | | | 19 | Sargent, A | A | A | P |
| | | | 20 | Ravi, V | A | A | P |
| | | | 21 | Readhead, A | A | A | P |
| | | | 22 | Dore, O | A | A | P |
| | | | 23 | Steidel, C | A | A | P |
| | | | 27 | Stevenson, D | A | A | P |
| | | | 28 | Cohen, J | A | A | P |
| | | | 29 | Knutson, H | A | A | P |
| | | | 30 | Mawet, D | A | A | P |
| | | | 31 | Batygin, K | A | A | P |
| | | | 32 | El-Badry, K | A | A | P |
| | | | 33 | Zmuidzinas, J | A | A | P |
| | | | 34 | Ehlmann, B | A | A | P |
| | | | 35 | Most, E | A | A | P |

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| Course Offering | Units | Offering Title | Section | Instructor | Days/Time | Location | Grade Scheme |
|--|----------------|--|---------|-------------|----------------------------------|----------|--------------|
| ASTROPHYSICS | | | | | | | |
| Ay 143 | + | Reading and Independent Study | 01 | Sargent, A | A | A | P |
| | | | 02 | Kulkarni, S | A | A | P |
| | | | 03 | El-Badry, K | A | A | P |
| | | | 04 | Hopkins, P | A | A | P |
| | | | 06 | Brown, M | A | A | P |
| | | | 07 | Blake, G | A | A | P |
| | | | 08 | Knutson, H | A | A | P |
| | | | 09 | Batygin, K | A | A | P |
| | | | 10 | El-Badry, K | A | A | P |
| | | | Ay 144 | + | Independent Writing in Astronomy | 01 | Golwala, S |
| 02 | Mawet, D | A | | | | A | P |
| 03 | Dore, O | A | | | | A | P |
| 06 | Ehlmann, B | A | | | | A | P |
| 4 | Hillenbrand, L | A | | | | A | P |
| 5 | Batygin, K | A | | | | A | P |
| Ge/Ay 159 | 3-0-6 | Astrobiology | 01 | Yung, Y | MWF 11:00 - 11:55 | 162 SMD | |
| BIOCHEMISTRY & MOLECULAR BIOPHYSICS | | | | | | | |
| BMB/Ch 202B | 1-0-0 | Biochemistry Seminar Course <i>To be held on Biochemistry Seminar days from 12-1pm (approx. 1-2 per month).</i> | 01 | Shan, S | R 12:00 - 12:55 | 320 BRN | P |
| Bi/BMB 251B | + | Current Research in Biology and Biological Engineering | 01 | Hay, B | A | A | P |
| BMB299 | + | Graduate Research | 01 | Mayo, S | A | A | P |
| | | | 02 | Pachter, L | A | A | P |
| | | | 03 | Rothmund, P | A | A | P |
| | | | 04 | Bjorkman, P | A | A | P |
| | | | 05 | Arnold, F | A | A | P |
| | | | 06 | Rees, D | A | A | P |
| | | | 07 | Greer, J | A | A | P |
| | | | 08 | Campbell, J | A | A | P |

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|--|-------|-------------------|---------|-------------------|-----------|----------|--------------|
| BIOCHEMISTRY & MOLECULAR BIOPHYSICS | | | | | | | |
| BMB299 | + | Graduate Research | 09 | Phillips, R | A | A | P |
| | | | 10 | Hay, B | A | A | P |
| | | | 11 | Hsieh-Wilson, L | A | A | P |
| | | | 12 | Phillips, R | A | A | P |
| | | | 13 | Parker, C | A | A | P |
| | | | 14 | Barton, J | A | A | P |
| | | | 15 | Zernicka-Goetz, M | A | A | P |
| | | | 17 | Anderson, D | A | A | P |
| | | | 18 | Dougherty, D | A | A | P |
| | | | 19 | Mazmanian, S | A | A | P |
| | | | 20 | Shan, S | A | A | P |
| | | | 22 | Elowitz, M | A | A | P |
| | | | 23 | Dervan, P | A | A | P |
| | | | 24 | Dunphy, W | A | A | P |
| | | | 25 | Tirrell, D | A | A | P |
| | | | 26 | Chong, S | A | A | P |
| | | | 27 | Meyerowitz, E | A | A | P |
| | | | 28 | Rothenberg, E | A | A | P |
| | | | 29 | Clemons, W | A | A | P |
| | | | 30 | Leadbetter, J | A | A | P |
| | | | 31 | Kennedy, M | A | A | P |
| | | | 32 | Lester, H | A | A | P |
| | | | 33 | Murray, R | A | A | P |
| | | | 34 | Mazmanian, S | A | A | P |
| | | | 35 | Baltimore, D | A | A | P |
| | | | 36 | Wang, Z | A | A | P |
| | | | 37 | Gharib, M | A | A | P |
| | | | 39 | Sternberg, P | A | A | P |
| | | | 40 | Davis, M | A | A | P |
| | | | 41 | Pierce, N | A | A | P |
| | | | 42 | Gray, H | A | A | P |
| | | | 43 | Roukes, M | A | A | P |
| | | | 44 | Newman, D | A | A | P |

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| Course Offering | Units | Offering Title | Section | Instructor | Days/Time | Location | Grade Scheme |
|--|-----------|--|---------|-----------------|------------------|---------------------------|--------------|
| BIOCHEMISTRY & MOLECULAR BIOPHYSICS | | | | | | | |
| BMB299 | + | Graduate Research | 45 | Cai, L | A | A | P |
| | | | 46 | Varshavsky, A | A | A | P |
| | | | 47 | Hoelz, A | A | A | P |
| | | | 48 | Goentoro, L | A | A | P |
| | | | 49 | Guttman, M | A | A | P |
| | | | 50 | Shapiro, M | A | A | P |
| | | | 51 | Ismagilov, R | A | A | P |
| | | | 52 | Meister, M | A | A | P |
| | | | 53 | Chan, D | A | A | P |
| | | | 54 | Zinn, K | A | A | P |
| | | | 55 | Chou, T | A | A | P |
| | | | 56 | Voorhees, R | A | A | P |
| | | | 57 | Winfrey, E | A | A | P |
| | | | 58 | Wagenaar, D | A | A | P |
| | | | 60 | Parker, J | A | A | P |
| | | | 61 | Thomson, M | A | A | P |
| | | | 62 | Semlow, D | A | A | P |
| | | | 63 | Stathopoulos, A | A | A | P |
| | | | 64 | Wang, K | A | A | P |
| 65 | Nelson, H | A | A | P | | | |
| 66 | Orphan, V | A | A | P | | | |
| 67 | Zakem, E | A | A | P | | | |
| BIOENGINEERING | | | | | | | |
| Bi/BE 024 | 3-0-3 | Scientific Communication for Biological Scientists and Engineers <i>Maximum enrollment: 12</i> | 01 | Hoy, J | MW 10:30 - 11:55 | 152 BRN | |
| BE/Bi 025 | 3-0-6 | Biophysical Chemistry | 01 | Bois, J | TR 09:00 - 10:25 | 100 - Rock Auditorium BRD | |
| BE 098 | + | Undergraduate Research in Bioengineering <i>If your research advisor does not appear below, please contact the Office of the Registrar.</i> | 01 | Arnold, F | A | A | P |
| | | | 02 | Mayo, S | A | A | P |
| | | | 03 | Burdick, J | A | A | P |
| | | | 04 | Kennedy, M | A | A | P |

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|-----------------------|-------|--|---------|---------------|-----------|----------|--------------|
| BIOENGINEERING | | | | | | | |
| BE 098 | + | Undergraduate Research in Bioengineering | 05 | Beauchamp, J | A | A | P |
| | | <i>If your research advisor does not appear below,</i> | 06 | Shimojo, S | A | A | P |
| | | <i>please contact the Office of the Registrar.</i> | 07 | Gharib, M | A | A | P |
| | | | 08 | Hajimiri, S | A | A | P |
| | | | 09 | Lester, H | A | A | P |
| | | | 10 | Phillips, R | A | A | P |
| | | | 11 | Dervan, P | A | A | P |
| | | | 12 | Pierce, N | A | A | P |
| | | | 13 | Gradinaru, V | A | A | P |
| | | | 14 | Hay, B | A | A | P |
| | | | 15 | Guttman, M | A | A | P |
| | | | 16 | Roukes, M | A | A | P |
| | | | 17 | Scherer, A | A | A | P |
| | | | 18 | Tai, Y | A | A | P |
| | | | 19 | Tirrell, D | A | A | P |
| | | | 20 | Yang, C | A | A | P |
| | | | 21 | Shan, S | A | A | P |
| | | | 22 | Adolphs, R | A | A | P |
| | | | 23 | Elowitz, M | A | A | P |
| | | | 24 | Murray, R | A | A | P |
| | | | 25 | Bjorkman, P | A | A | P |
| | | | 26 | Leadbetter, J | A | A | P |
| | | | 27 | Winfrey, E | A | A | P |
| | | | 28 | Ismagilov, R | A | A | P |
| | | | 29 | Oka, Y | A | A | P |
| | | | 30 | Kornfield, J | A | A | P |
| | | | 31 | Baltimore, D | A | A | P |
| | | | 32 | Davis, M | A | A | P |
| | | | 33 | Sternberg, P | A | A | P |
| | | | 34 | Meister, M | A | A | P |
| | | | 35 | Aravin, A | A | A | P |
| | | | 36 | Qian, L | A | A | P |
| | | | 37 | Shapiro, M | A | A | P |

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|-----------------------|-------|--|---------|-------------------|------------------------------------|---------------------------------------|--------------|
| BIOENGINEERING | | | | | | | |
| BE 098 | + | Undergraduate Research in Bioengineering <i>If your research advisor does not appear below, please contact the Office of the Registrar.</i> | 38 | Mazmanian, S | A | A | P |
| | | | 39 | Van Valen, D | A | A | P |
| | | | 40 | Thomson, M | A | A | P |
| | | | 41 | Dickinson, M | A | A | P |
| | | | 42 | Wang, K | A | A | P |
| | | | 43 | Chou, T | A | A | P |
| | | | 44 | Pachter, L | A | A | P |
| | | | 45 | Goentoro, L | A | A | P |
| | | | 46 | Hay, B | A | A | P |
| | | | 47 | Bronner Hansen, M | A | A | P |
| | | | 48 | Wold, B | A | A | P |
| | | | 49 | Daraio, C | A | A | P |
| | | | 50 | Prober, D | A | A | P |
| | | | 51 | Meyerowitz, E | A | A | P |
| | 52 | Staff | A | A | P | | |
| | 53 | Nolan, T | A | A | P | | |
| BE 099B | + | Senior Thesis in Bioengineering | 01 | Gradinaru, V | A | A | P |
| | | | 02 | Murray, R | A | A | P |
| | | | 03 | Elowitz, M | A | A | P |
| | | | 04 | Shapiro, M | A | A | P |
| | | | 05 | Winfrey, E | A | A | P |
| | | | 06 | Daraio, C | A | A | P |
| | | | 07 | Pierce, N | A | A | P |
| | | | 08 | Bjorkman, P | A | A | P |
| | | | 09 | Nolan, T | A | A | P |
| BE/Bi 103B | 1-3-5 | Statistical Inference in the Biological Sciences | 01 | Bois, J | M 09:00 - 09:55 W 09:00 - 11:55 | 100 - Rock Auditorium BRD 100 CNRB | |
| ChE/BE/MedE 112 | 3-0-6 | Creativity and Technological Innovation with Microfluidic Systems <i>Maximum enrollment: 20 students</i> | 01 | Ismagilov, R | TR 13:00 - 14:25 | 101 SCH | |
| Ph/APh/EE/BE 118A | 3-0-6 | Physics of Measurement | 01 | Roukes, M | TR 14:30 - 15:55 | 387 LINDE | |

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|-----------------------|-------|---|---------|-----------------|--------------------------------------|---------------------------|--------------|
| BIOENGINEERING | | | | | | | |
| Bi/BE 119 | 3-0-6 | Morphogenesis of Developmental Systems | 01 | Stathopoulos, A | TR 10:30 - 11:55 | 200 BRD | |
| NB/Bi/BE 155 | 3-0-3 | Neuropharmacology | 01 | Staff | A | A | |
| BE/Bi/APh 161 | 3-0-9 | Physical Biology of the Cell | 01 | Bois, J | MW 14:30 - 15:55 | 100 - Rock Auditorium BRD | |
| MedE/EE/BE 168A | 4-0-5 | Biomedical Optics: Principles and Imaging | 01 | Wang, L | TR 14:30 - 16:15 | A | G |
| Bi/BE 177 | 3-0-6 | Principles of Modern Microscopy | 01 | Collazo, A | TR 10:30 - 11:55 | 152 BRN | |
| EE/BE/MedE 185 | 3-0-6 | Micro/Nano Technology for Semiconductor and Medical Device | 01 | Tai, Y | MW 10:30 - 11:55 | 142 KCK | |
| BE/CS/CNS/Bi 191A | 3-0-6 | Biomolecular Computation | 01 | Winfree, E | TR 10:30 - 11:55 | 142 KCK | G |
| BE/CS 196A | 2-4-6 | Design and Construction of Programmable Molecular Systems <i>maximum enrollment: 16 students</i> | 01 | Qian, L | TR 13:00 - 13:55 TR 14:00 - 15:55 | B136 KRK B127 KRK | |
| BE 200 | + | Research in Bioengineering | 01 | Arnold, F | A | A | P |
| | | | 02 | Troian, S | A | A | P |
| | | | 03 | Burdick, J | A | A | P |
| | | | 04 | Rothmund, P | A | A | P |
| | | | 05 | Dervan, P | A | A | P |
| | | | 06 | Goentoro, L | A | A | P |
| | | | 07 | Gharib, M | A | A | P |
| | | | 08 | Hajimiri, S | A | A | P |
| | | | 09 | Newman, D | A | A | P |
| | | | 10 | Lester, H | A | A | P |
| | | | 11 | Guttman, M | A | A | P |
| | | | 12 | Pierce, N | A | A | P |
| | | | 13 | Meister, M | A | A | P |

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| BIOENGINEERING | | | | | | | |
| BE 200 | + | Research in Bioengineering | 14 | Goddard, W | A | A | P |
| | | | 15 | Ismagilov, R | A | A | P |
| | | | 16 | Roukes, M | A | A | P |
| | | | 17 | Scherer, A | A | A | P |
| | | | 18 | Tai, Y | A | A | P |
| | | | 19 | Tirrell, D | A | A | P |
| | | | 20 | Yang, C | A | A | P |
| | | | 21 | Thomson, M | A | A | P |
| | | | 22 | Dickinson, M | A | A | P |
| | | | 23 | Elowitz, M | A | A | P |
| | | | 24 | Murray, R | A | A | P |
| | | | 25 | Lois, C | A | A | P |
| | | | 26 | Leadbetter, J | A | A | P |
| | | | 27 | Winfrey, E | A | A | P |
| | | | 28 | Shapiro, M | A | A | P |
| | | | 29 | Phillips, R | A | A | P |
| | | | 30 | Mayo, S | A | A | P |
| | | | 31 | Sternberg, P | A | A | P |
| | | | 32 | Gradinaru, V | A | A | P |
| | | | 33 | Andersen, R | A | A | P |
| | | | 34 | Qian, L | A | A | P |
| | | | 35 | Kornfield, J | A | A | P |
| | | | 36 | Bjorkman, P | A | A | P |
| | | | 37 | Cai, L | A | A | P |
| | | | 38 | Hong, E | A | A | P |
| | | | 39 | Greer, J | A | A | P |
| | | | 40 | Pachter, L | A | A | P |
| | | | 41 | Mazmanian, S | A | A | P |
| | | | 42 | Wang, K | A | A | P |
| | | | 44 | Van Valen, D | A | A | P |
| | | | 46 | Rutishauser, U | A | A | P |
| | | | 47 | Chan, D | A | A | P |
| | | | 48 | Fejes Toth, K | A | A | P |

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|-----------------------|-----------------|--|------------------|----------------------|---------------------------------------|------------------------|--------------|
| BIOENGINEERING | | | | | | | |
| BE 200 | + | Research in Bioengineering | 49 | Wold, B | A | A | P |
| | | | 50 | Emami, A | A | A | P |
| | | | 51 | Rothenberg, E | A | A | P |
| | | | 52 | Daraio, C | A | A | P |
| | | | 53 | Demirer, G | A | A | P |
| | | | 54 | Shimojo, S | A | A | P |
| | | | 55 | Chong, S | A | A | P |
| | | | 56 | Chung, S | A | A | P |
| BE 201 | + | Reading the Bioengineering Literature <i>Required for first and second year BE grad students // class meets on Tuesdays, 12-1:30pm in CNRB 130</i> | 01 | Winfree, E | A | A | P |
| BIOLOGY | | | | | | | |
| Bi 001B | 3-0-6 | The Biomechanics of Organismal Design <i>open by application only, apply by Nov 14 at https://registrar.caltech.edu/Bi1_WI2025 // maximum enrollment: 20 students // pass/fail for all first-year students and graded only for all non-first-year students</i> | 01 | Dickinson, M | TWF 13:00 - 13:55 MT 19:00 - 19:55 | 240A CNRB 240A CNRB | |
| Bi 001C | 3-0-6 | Biology Through the Algorithmic Lens <i>open by application only, apply by Nov 14 at https://registrar.caltech.edu/Bi1_WI2025 // maximum enrollment: 20 students // pass/fail for all first-year students and graded only for all non-first-year students</i> | 01 | Pachter, L | TR 13:00 - 14:25 | 340A CNRB | |
| Bi 008 | 3-0-6 | Foundational Principles of Molecular Biology <i>Maximum enrollment: 30 students per section</i> | 01 | Guttman, M / Hong, E | TR 13:00 - 14:25 | A | |
| | | | | | W 15:00 - 15:55 | 130 CNRB | |
| | | | 02 | Guttman, M / Hong, E | TR 13:00 - 14:25 | A | |
| | | | | | R 19:00 - 19:55 | 130 CNRB | |
| | 03 | Guttman, M / Hong, E | TR 13:00 - 14:25 | A | | | |
| | F 14:00 - 14:55 | | 130 CNRB | | | | |

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| BIOLOGY | | | | | | | |
| Bi 021 | + | Undergraduate Research with Presentation <i>minimum 12 units per term</i> | 01 | Dunphy, W | A | A | P |
| Bi 022 | + | Undergraduate Research | 01 | Chan, D | A | A | P |
| | | | 03 | Allman, J | A | A | P |
| | | | 04 | Anderson, D | A | A | P |
| | | | 05 | Parker, C | A | A | P |
| | | | 06 | Arnold, F | A | A | P |
| | | | 07 | Baltimore, D | A | A | P |
| | | | 08 | Sternberg, P | A | A | P |
| | | | 09 | Lester, H | A | A | P |
| | | | 10 | Bjorkman, P | A | A | P |
| | | | 11 | Bronner Hansen, M | A | A | P |
| | | | 12 | Leadbetter, J | A | A | P |
| | | | 13 | Adolphs, R | A | A | P |
| | | | 14 | Shapiro, M | A | A | P |
| | | | 15 | Rothenberg, E | A | A | P |
| | | | 16 | Hay, B | A | A | P |
| | | | 17 | Cai, L | A | A | P |
| | | | 18 | Shan, S | A | A | P |
| | | | 19 | Campbell, J | A | A | P |
| | | | 20 | Clemons, W | A | A | P |
| | | | 21 | Stevenson, D | A | A | P |
| | | | 22 | Orphan, V | A | A | P |
| | | | 23 | Varshavsky, A | A | A | P |
| | | | 24 | Meyerowitz, E | A | A | P |
| | | | 25 | Meister, M | A | A | P |
| | | | 26 | Winfree, E | A | A | P |
| | | | 27 | Mazmanian, S | A | A | P |
| | | | 28 | Tirrell, D | A | A | P |
| | | | 29 | Shimojo, S | A | A | P |
| | | | 30 | Wold, B | A | A | P |
| | | | 31 | Sternberg, P | A | A | P |
| | | | 32 | Kennedy, M | A | A | P |

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|-----------------|-------|------------------------|---------|-------------------|-----------|----------|--------------|
| BIOLOGY | | | | | | | |
| Bi 022 | + | Undergraduate Research | 33 | Newman, D | A | A | P |
| | | | 34 | Pierce, N | A | A | P |
| | | | 35 | Gradinaru, V | A | A | P |
| | | | 36 | Prober, D | A | A | P |
| | | | 37 | Thomson, M | A | A | P |
| | | | 38 | Chou, T | A | A | P |
| | | | 39 | Goentoro, L | A | A | P |
| | | | 40 | Goddard, W | A | A | P |
| | | | 41 | Stathopoulos, A | A | A | P |
| | | | 42 | Zinn, K | A | A | P |
| | | | 43 | Rangel, A | A | A | P |
| | | | 44 | Parker, J | A | A | P |
| | | | 45 | Davis, M | A | A | P |
| | | | 46 | Murray, R | A | A | P |
| | | | 48 | Elowitz, M | A | A | P |
| | | | 49 | Prober, D | A | A | P |
| | | | 50 | Bronner Hansen, M | A | A | P |
| | | | 51 | Aravin, A | A | A | P |
| | | | 52 | Aravin, A | A | A | P |
| | | | 53 | Clemons, W | A | A | P |
| | | | 54 | Mazmanian, S | A | A | P |
| | | | 55 | Newman, D | A | A | P |
| | | | 56 | Shan, S | A | A | P |
| | | | 57 | Guttman, M | A | A | P |
| | | | 59 | Hong, E | A | A | P |
| | | | 60 | Pachter, L | A | A | P |
| | | | 61 | Zernicka-Goetz, M | A | A | P |
| | | | 62 | Wang, K | A | A | P |
| | | | 63 | Andersen, R | A | A | P |
| | | | 64 | Van Valen, D | A | A | P |
| | | | 65 | Glover, D | A | A | P |
| | | | 66 | Dunphy, W | A | A | P |
| | | | 67 | Siapas, A | A | A | P |

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| Course Offering | Units | Offering Title | Section | Instructor | Days/Time | Location | Grade Scheme |
|-----------------|-------|--|---------|--|--------------------------------------|---------------------------------------|---------------------------|
| BIOLOGY | | | | | | | |
| Bi 022 | + | Undergraduate Research | 68 | Nolan, T | A | A | P |
| Bi 023 | 1-0-2 | Biology Tutorials | 01 | Prober, D | OM,W 16:00 - 16:55 | 240A CNRB | P |
| | | <i>Sec 1: Learning Across Species: Foundations</i> | 02 | Panda, P | OM,T 16:00 - 16:55 | A | P |
| | | <i>and Frontiers in the Ethology of Learning // Sec 2: Brain Organoids 101 // Sec 3: Neurobiology of Sleep: Understanding the Science of Rest // Sec 4: Topics in Memory //Sec 2 OM via Zoom</i> | 03 | Staff | OM,M 16:00 - 16:55 | 340A CNRB | P |
| | | | 04 | Prober, D | W 16:00 - 16:55 | 322 CNRB | P |
| Bi/BE 024 | 3-0-3 | Scientific Communication for Biological Scientists and Engineers <i>Maximum enrollment: 12</i> | 01 | Hoy, J | MW 10:30 - 11:55 | 152 BRN | |
| BE/Bi 025 | 3-0-6 | Biophysical Chemistry | 01 | Bois, J | TR 09:00 - 10:25 | 100 - Rock Auditorium BRD | |
| Bi 090B | + | Undergraduate Thesis | 01 | Allman, J | A | A | P |
| | | | 02 | Nolan, T | A | A | P |
| BE/Bi 103B | 1-3-5 | Statistical Inference in the Biological Sciences | 01 | Bois, J | M 09:00 - 09:55 W 09:00 - 11:55 | 100 - Rock Auditorium BRD 100 CNRB | |
| Ch/Bi 110B | 4-0-8 | Introduction to Biochemistry | 01 | Rees, D | W 15:00 - 15:55 MWF 11:00 - 11:55 | 147 NYS 147 NYS | |
| Bi 114 | 3-0-6 | Immunology <i>Max enrollment: 30</i> | 01 | Bjorkman, P | MW 13:30 - 14:55 | 200 BRD | |
| Bi 117 | 3-0-6 | Developmental Biology | 01 | Zernicka-Goetz, M / Bronner Hansen, M | M 19:00 - 19:55 | 100 - Rock Auditorium BRD | 100 - Rock Auditorium BRD |
| | | | | | TR 13:00 - 14:25 | | |
| Bi/BE 119 | 3-0-6 | Morphogenesis of Developmental Systems | 01 | Stathopoulos, A | TR 10:30 - 11:55 | 200 BRD | |
| Bi 145B | 3-0-6 | Tissue and Organ Physiology | 01 | Tydell, C | TR 19:00 - 20:25 | 340A CNRB | |
| NB/Bi/CNS 152 | 2-0-4 | Neural Circuits and Physiology of Homeostatic Regulation | 01 | Oka, Y | T 09:00 - 10:55 | B101 BBB | |

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|-------------------|-------|---|---------|---|------------------------------------|---------------------------|--------------|
| BIOLOGY | | | | | | | |
| NB/Bi/BE 155 | 3-0-3 | Neuropharmacology | 01 | Staff | A | A | |
| BE/Bi/APh 161 | 3-0-9 | Physical Biology of the Cell | 01 | Bois, J | MW 14:30 - 15:55 | 100 - Rock Auditorium BRD | |
| ESE/Bi 168 | 3-0-6 | Microbial Metabolic Diversity | 01 | Newman, D | MWF 09:00 - 09:55 | 215 NMD | |
| Bi/BE 177 | 3-0-6 | Principles of Modern Microscopy | 01 | Collazo, A | TR 10:30 - 11:55 | 152 BRN | |
| Ge/ESE/Bi 178 | 3-2-4 | Microbial Ecology | 01 | Orphan, V | TR 13:00 - 13:55 | 162 SMD | |
| ESE/Ge/Bi/ChE 184 | 3-0-6 | Computational Tools for Decoding Microbial Ecosystems <i>maximum enrollment: TBD</i> | 01 | Karthikeyan, S | TR 10:30 - 11:55 | A | |
| BE/CS/CNS/Bi 191A | 3-0-6 | Biomolecular Computation | 01 | Winfree, E | TR 10:30 - 11:55 | 142 KCK | G |
| Bi 214 | 3-0-6 | Stem Cells and Hematopoiesis | 01 | Rothenberg, E | T 19:00 - 20:55 F 14:00 - 15:55 | 152 BRN 152 BRN | |
| CNS/Bi/NB 247 | 2-0-4 | Cerebral Cortex | 01 | Andersen, R | TR 13:00 - 13:55 | 333 BCK | |
| Bi 250D | 3-0-6 | Topics in Developmental, Stem Cell and Evolutionary Biology | 01 | Bronner Hansen, M / Rothenberg, E / Zernicka-Goetz, M | TR 14:30 - 15:55 | 100 - Rock Auditorium BRD | |
| Bi/BMB 251B | + | Current Research in Biology and Biological Engineering | 01 | Hay, B | A | A | P |
| Bi 299 | + | Graduate Research | 01 | Stathopoulos, A | A | A | P |
| | | | 02 | Lester, H | A | A | P |
| | | | 03 | Allman, J | A | A | P |
| | | | 04 | Andersen, R | A | A | P |
| | | | 05 | Anderson, D | A | A | P |
| | | | 06 | Varshavsky, A | A | A | P |

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|-----------------|-------|-------------------|---------|-------------------|-----------|----------|--------------|
| BIOLOGY | | | | | | | |
| Bi 299 | + | Graduate Research | 07 | Mazmanian, S | A | A | P |
| | | | 08 | Fischer, W | A | A | P |
| | | | 09 | Pachter, L | A | A | P |
| | | | 10 | Bjorkman, P | A | A | P |
| | | | 11 | Bronner Hansen, M | A | A | P |
| | | | 12 | Campbell, J | A | A | P |
| | | | 13 | Chan, D | A | A | P |
| | | | 14 | Thomson, M | A | A | P |
| | | | 15 | Baltimore, D | A | A | P |
| | | | 16 | Dickinson, M | A | A | P |
| | | | 17 | Clemons, W | A | A | P |
| | | | 18 | Dunphy, W | A | A | P |
| | | | 19 | Voorhees, R | A | A | P |
| | | | 20 | Goddard, W | A | A | P |
| | | | 21 | Hay, B | A | A | P |
| | | | 22 | Kennedy, M | A | A | P |
| | | | 23 | Scherer, A | A | A | P |
| | | | 24 | Orphan, V | A | A | P |
| | | | 25 | Arnold, F | A | A | P |
| | | | 26 | Pierce, N | A | A | P |
| | | | 28 | Mayo, S | A | A | P |
| | | | 29 | Meyerowitz, E | A | A | P |
| | | | 30 | Newman, D | A | A | P |
| | | | 32 | Lois, C | A | A | P |
| | | | 33 | Gharib, M | A | A | P |
| | | | 34 | Kirschvink, J | A | A | P |
| | | | 35 | Hsieh-Wilson, L | A | A | P |
| | | | 36 | Shan, S | A | A | P |
| | | | 37 | Rothenberg, E | A | A | P |
| | | | 38 | Elowitz, M | A | A | P |
| | | | 39 | Guttman, M | A | A | P |
| | | | 40 | Shimojo, S | A | A | P |
| | | | 41 | Phillips, R | A | A | P |

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|-----------------|-------|-------------------|---------|-------------------|-----------|----------|--------------|
| BIOLOGY | | | | | | | |
| Bi 299 | + | Graduate Research | 42 | Sternberg, P | A | A | P |
| | | | 43 | Cai, L | A | A | P |
| | | | 44 | Goentoro, L | A | A | P |
| | | | 45 | Winfree, E | A | A | P |
| | | | 46 | Wold, B | A | A | P |
| | | | 49 | Zinn, K | A | A | P |
| | | | 50 | de Kleer, K | A | A | P |
| | | | 51 | Elowitz, M | A | A | P |
| | | | 52 | Prober, D | A | A | P |
| | | | 53 | Adolphs, R | A | A | P |
| | | | 54 | Aravin, A | A | A | P |
| | | | 55 | Dougherty, D | A | A | P |
| | | | 56 | Tai, Y | A | A | P |
| | | | 57 | Fejes Toth, K | A | A | P |
| | | | 58 | Burdick, J | A | A | P |
| | | | 59 | Meister, M | A | A | P |
| | | | 60 | Siapas, A | A | A | P |
| | | | 61 | Murray, R | A | A | P |
| | | | 62 | Gradinaru, V | A | A | P |
| | | | 63 | Qian, L | A | A | P |
| | | | 64 | Oka, Y | A | A | P |
| | | | 66 | Shapiro, M | A | A | P |
| | | | 67 | Hong, E | A | A | P |
| | | | 68 | Ismagilov, R | A | A | P |
| | | | 69 | Phillips, R | A | A | P |
| | | | 70 | Parker, J | A | A | P |
| | | | 71 | Roukes, M | A | A | P |
| | | | 72 | Van Valen, D | A | A | P |
| | | | 73 | Wang, K | A | A | P |
| | | | 74 | Zernicka-Goetz, M | A | A | P |
| | | | 75 | Newman, H | A | A | P |
| | | | 77 | Chong, S | A | A | P |
| | | | 78 | Glover, D | A | A | P |

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|--|-----------|--|---------|----------------|--------------------|----------|--------------|
| BIOLOGY | | | | | | | |
| Bi 299 | + | Graduate Research | 79 | Demirer, G | A | A | P |
| | | | 80 | McFall-Ngai, M | A | A | P |
| | | | 81 | Karthikeyan, S | A | A | P |
| BUSINESS, ECONOMICS, AND MANAGEMENT | | | | | | | |
| BEM097 | + | Undergraduate Research <i>Instructor permission required prior to registering</i> | 01 | Staff | A | A | P |
| BEM103 | 3-0-6 | Introduction to Finance | 01 | Rosenthal, J | MWF 09:00 - 09:55 | A | G |
| BEM111 | 3-0-6 | Quantitative Risk and Portfolio Management | 01 | Winston, K | TR 19:00 - 20:25 | A | |
| BEM115 | 3-0-6 | Business Law <i>maximum enrollment: 40 students</i> | 01 | McAniff, P | TR 10:30 - 11:55 | A | |
| CHEMICAL ENGINEERING | | | | | | | |
| ChE015 | 1-4-4 | Introduction to Chemical Engineering Computation | 01 | Flagan, R | MW 13:00 - 14:55 | B101 BBB | |
| ChE062 | 3-0-6 | Separation Processes | 01 | Staff | A | A | G |
| ChE063B | 3-0-6 | Chemical Engineering Thermodynamics | 01 | Ismagilov, R | TR 10:30 - 11:55 | 113 SPL | |
| ChE070 | 1.5-0-1.5 | Special Topics in Chemical Engineering: ChemE Car | 01 | Vicic, M | OM,T 12:00 - 12:55 | 122 SPL | P |
| ChE080 | + | Undergraduate Research | 01 | Arnold, F | A | A | P |
| | | | 02 | Giapis, K | A | A | P |
| | | | 03 | Kornfield, J | A | A | P |
| | | | 05 | Ismagilov, R | A | A | P |
| | | | 06 | Lewis, N | A | A | P |
| | | | 07 | Davis, M | A | A | P |
| | | | 09 | Shapiro, M | A | A | P |

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|-----------------------------|-------|------------------------|---------|--------------------|-----------|----------|--------------|
| CHEMICAL ENGINEERING | | | | | | | |
| ChE080 | + | Undergraduate Research | 10 | Goddard, W | A | A | P |
| | | | 11 | Hoelz, A | A | A | P |
| | | | 12 | Greer, J | A | A | P |
| | | | 13 | Flagan, R | A | A | P |
| | | | 14 | Gavalas, G | A | A | P |
| | | | 15 | Shapiro, M | A | A | P |
| | | | 34 | Seinfeld, J | A | A | P |
| | | | 36 | Tirrell, D | A | A | P |
| | | | 38 | Agapie, T | A | A | P |
| | | | 39 | Hadt, R | A | A | P |
| ChE090A | + | Undergraduate Thesis | 02 | Giapis, K | A | A | P |
| | | | 03 | Seinfeld, J | A | A | P |
| | | | 04 | Tirrell, D | A | A | P |
| | | | 06 | Flagan, R | A | A | P |
| | | | 07 | Gavalas, G | A | A | P |
| | | | 08 | Kornfield, J | A | A | P |
| | | | 09 | Davis, M | A | A | P |
| | | | 11 | Wang, Z | A | A | P |
| | | | 13 | Brady, J | A | A | P |
| | | | 14 | Greer, J | A | A | P |
| | | | 15 | Cai, L / Arnold, F | A | A | P |
| | | | 17 | Fu, G | A | A | P |
| | | | 18 | Atwater, H | A | A | P |
| ChE090B | 0-4-5 | Undergraduate Thesis | 01 | Giapis, K | A | A | |
| | | | 02 | Tirrell, D | A | A | |
| | | | 03 | Kornfield, J | A | A | |
| | | | 04 | Cai, L / Arnold, F | A | A | |
| | | | 05 | Lewis, N | A | A | |
| | | | 06 | Flagan, R | A | A | |
| | | | 07 | Atwater, H | A | A | |
| | | | 08 | Mayo, S | A | A | |
| | | | 09 | Ismagilov, R | A | A | |
| | | | 10 | Seinfeld, J | A | A | |

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|-----------------------------|-------|---|---------|----------------------|-------------------|----------|--------------|
| CHEMICAL ENGINEERING | | | | | | | |
| ChE090B | 0-4-5 | Undergraduate Thesis | 11 | Wang, Z | A | A | |
| | | | 12 | Greer, J | A | A | |
| | | | 13 | Clemons, W | A | A | |
| | | | 14 | See, K | A | A | |
| | | | 15 | Hoelz, A | A | A | |
| | | | 16 | Shapiro, M | A | A | |
| ChE090C | + | Undergraduate Thesis | 01 | Shapiro, M | A | A | P |
| Ch/ChE 091 | 2-0-1 | Scientific Writing | 01 | Parker, C | M 14:00 - 15:55 | 101 SCH | G |
| ChE101 | 3-0-6 | Chemical Reaction Engineering | 01 | Demirer, G | TR 14:30 - 15:55 | 106 SPL | |
| ChE103B | 3-0-6 | Transport Phenomena | 01 | Dingilian, K | MWF 10:00 - 10:55 | 106 SPL | |
| ChE/ESE/ME/MS 111 | 3-0-6 | Sustainable Engineering | 01 | Kornfield, J | TR 11:30 - 12:55 | 147 NYS | |
| ChE/BE/MedE 112 | 3-0-6 | Creativity and Technological Innovation with Microfluidic Systems <i>Maximum enrollment: 20 students</i> | 01 | Ismagilov, R | TR 13:00 - 14:25 | 101 SCH | |
| ChE118 | 3-0-6 | Introduction to the Design of Chemical Systems | 01 | Vicic, M | MWF 15:00 - 15:55 | 102 SPL | |
| ChE128 | 1-6-2 | Chemical Engineering Design Laboratory <i>If unable to register, please contact instructor.</i> | 01 | Vicic, M / Giapis, K | M 12:00 - 12:55 | 102 SPL | G |
| | | | | | WF 09:00 - 11:55 | 122 SPL | |
| ChE/Ch 137 | 2-1-6 | Data Science for Chemical Systems <i>Max enrollment is 15 students; Priority given to ChE undergrads</i> | 01 | Vicic, M | TR 10:30 - 11:55 | 102 SPL | |
| Ch/ChE 140A | 3-0-6 | Principles and Applications of Semiconductor Photoelectrochemistry | 01 | Lewis, N | TR 13:00 - 14:25 | 216 NYS | |
| ChE151A | 3-0-9 | Physical and Chemical Rate Processes | 01 | Brady, J | MWF 09:00 - 09:55 | 102 SPL | G |

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| CHEMICAL ENGINEERING | | | | | | | |
| ChE/Ch 164 | 3-0-6 | Introduction to Statistical Thermodynamics | 01 | Wang, Z / Chan, G | TR 10:30 - 11:55 | 106 SPL | |
| ESE/ME/EST/Ec/ChE/ | 3-0-0 | Climate Change Impacts, Mitigation and Adaptation <i>maximum enrollment: 25 students</i> | 01 | Wennberg, P / Druckenmiller, H / Fromer, N | W 11:00 - 12:55 | 210 RSC | |
| ESE/Ge/Bi/ChE 184 | 3-0-6 | Computational Tools for Decoding Microbial Ecosystems <i>maximum enrollment: TBD</i> | 01 | Karthikeyan, S | TR 10:30 - 11:55 | A | |
| ChE280 | + | Chemical Engineering Research | 01 | Arnold, F | A | A | P |
| | | | 02 | Murray, R | A | A | P |
| | | | 04 | Stoltz, B | A | A | P |
| | | | 05 | Pierce, N | A | A | P |
| | | | 06 | Dougherty, D | A | A | P |
| | | | 07 | Brady, J | A | A | P |
| | | | 08 | Atwater, H | A | A | P |
| | | | 09 | Elowitz, M | A | A | P |
| | | | 10 | Davis, M | A | A | P |
| | | | 11 | Greer, J | A | A | P |
| | | | 12 | Fultz, B | A | A | P |
| | | | 13 | Flagan, R | A | A | P |
| | | | 14 | See, K | A | A | P |
| | | | 15 | Fultz, B | A | A | P |
| | | | 16 | Giapis, K | A | A | P |
| | | | 17 | Goddard, W | A | A | P |
| | | | 19 | Shapiro, M | A | A | P |
| | | | 20 | Hoffmann, M | A | A | P |
| | | | 21 | Kornfield, J | A | A | P |
| | | | 22 | Robb, M | A | A | P |
| | | | 23 | Lewis, N | A | A | P |
| | | | 24 | Wei, L | A | A | P |
| | | | 25 | Chan, G | A | A | P |
| | | | 26 | Pachter, L | A | A | P |
| | | | 27 | Wang, K | A | A | P |

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| CHEMICAL ENGINEERING | | | | | | | |
| ChE280 | + | Chemical Engineering Research | 28 | Hadt, R | A | A | P |
| | | | 36 | Tirrell, D | A | A | P |
| | | | 37 | Wang, Z | A | A | P |
| | | | 40 | Seinfeld, J | A | A | P |
| | | | 46 | Ismagilov, R | A | A | P |
| | | | 47 | Guttman, M | A | A | P |
| | | | 48 | Mayo, S | A | A | P |
| | | | 49 | Agapie, T | A | A | P |
| | | | 50 | Gao, W | A | A | P |
| | | | 51 | Manthiram, K | A | A | P |
| | | | 52 | Demirer, G | A | A | P |
| | | | 53 | Schneider, T | A | A | P |
| | | | 54 | Wennberg, P | A | A | P |
| | | | 55 | Karthikeyan, S | A | A | P |
| | | | 56 | Minnich, A | A | A | P |
| | | | 57 | Anandkumar, A | A | A | P |
| | | | 58 | Faber, K | A | A | P |
| | | | 59 | Voorhees, R | A | A | P |
| | | | 60 | Daraio, C | A | A | P |
| ChE290B | 1-0-0 | Chemical Engineering Seminar Course | 01 | Vicic, M | A | A | P |
| CHEMISTRY | | | | | | | |
| Ch 001B | 4-0-5 | General Chemistry <i>Fundamentals (Sec 1) // Regular (Sec 2-6) // Advanced (Sec 7)</i> | 01 | Nelson, H | MTR 11:00 - 11:55 W 19:00 - 19:55 | Lecture Hall BAX 210 RSC | P |
| | | | 02 | Nelson, H | MTR 11:00 - 11:55 W 11:00 - 11:55 | Lecture Hall BAX 275 RSC | P |
| | | | 03 | Nelson, H | MTR 11:00 - 11:55 W 13:00 - 13:55 | Lecture Hall BAX 275 RSC | P |
| | | | 04 | Nelson, H | MTR 11:00 - 11:55 W 15:00 - 15:55 | Lecture Hall BAX 275 RSC | P |
| | | | 05 | Nelson, H | MTR 11:00 - 11:55 W 19:00 - 19:55 | Lecture Hall BAX 275 RSC | P |

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| CHEMISTRY | | | | | | | |
| Ch 001B | 4-0-5 | General Chemistry <i>Fundamentals (Sec 1) // Regular (Sec 2-6) // Advanced (Sec 7)</i> | 06 | Nelson, H | MTR 11:00 - 11:55 | Lecture Hall BAX | P |
| | | | 07 | Nelson, H | W 19:00 - 19:55 MTR 11:00 - 11:55 W 19:00 - 19:55 | B122 GTS Lecture Hall BAX 252 RSC | P |
| Ch 003A | 1-3-2 | Fundamental Techniques of Experimental Chemistry <i>open by lottery; see REGIS to enter by Nov 20th // Max enroll: 16 students per sec // students must take Ch3 in their first six terms of residence in order to be graded pass/fail // Sec 3 is First-Years only</i> | 01 | Mendez, J | F 13:00 - 13:55 T 08:00 - 10:55 | B122 GCL 220 RSC | P |
| | | | 02 | Mendez, J | F 13:00 - 13:55 T 13:00 - 15:55 | B122 GCL 220 RSC | P |
| | | | 03 | Mendez, J | F 13:00 - 13:55 T 19:00 - 21:55 | B122 GCL 220 RSC | P |
| | | | 04 | Mendez, J | F 13:00 - 13:55 W 13:00 - 15:55 | B122 GCL 220 RSC | P |
| | | | 05 | Mendez, J | F 13:00 - 13:55 R 08:00 - 10:55 | B122 GCL 220 RSC | P |
| Ch 003X | 1-3-2 | Experimental Methods in Solar Energy Conversion <i>open by lottery only; see link on the REGIS home page to enter by Nov 20th // Max enroll: 12 students per sec // students must take Ch 3 in their first six terms of residence in order to be graded pass/fail // Sec 3 is First-Years only</i> | 01 | Mendez, J | F 09:00 - 09:55 T 08:00 - 10:55 | B122 GCL 252 RSC | P |
| | | | 02 | Mendez, J | F 09:00 - 09:55 T 13:00 - 15:55 | B122 GCL 252 RSC | P |
| | | | 03 | Mendez, J | F 09:00 - 09:55 T 19:00 - 21:55 | B122 GCL 252 RSC | P |
| | | | 04 | Mendez, J | F 09:00 - 09:55 W 13:00 - 15:55 | B122 GCL 252 RSC | P |
| | | | 05 | Mendez, J | F 09:00 - 09:55 R 08:00 - 10:55 | B122 GCL 252 RSC | P |
| Ch 004A | 1-6-2 | Synthesis and Analysis of Organic and Inorganic Compounds <i>open by lottery only; see link on the REGIS home page to enter by Nov 20th // maximum enrollment: 14 students</i> | 01 | Mendez, J | F 11:00 - 11:55 T 08:00 - 10:55 R 08:00 - 10:55 | B122 GCL 130 CHR 130 CHR | |
| Ch 005A | 1-9-2 | Advanced Techniques of Synthesis and Analysis <i>Lab Hours are Monday, Wednesday, & Friday from 8:00am - 5:00pm</i> | 01 | Nelson, H | A | 222 RSC | |

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|------------------|-------|---|---------|---------------------|--------------------------------------|--------------------|--------------|
| CHEMISTRY | | | | | | | |
| Ch 010B | 1-0-0 | Frontiers in Chemistry <i>Lab Hours TBA // open to first-years and sophomores only</i> | 01 | Hoelz, A | R 12:00 - 12:55 | 151 CRL | P |
| Ch 011 | 1-5-3 | Biochemistry Laboratory | 01 | Hoelz, A / Chong, S | R 13:00 - 16:55 F 13:00 - 15:55 | 252 RSC 252 RSC | |
| Ch 021B | 3-0-6 | Physical Chemistry | 01 | Wei, L | MWF 13:00 - 13:55 | 147 NYS | G |
| Ch 041B | 4-0-5 | Organic Chemistry | 01 | Hsieh-Wilson, L | MWF 09:00 - 09:55 W 15:00 - 15:55 | 153 NYS 151 CRL | |
| | | | 02 | Hsieh-Wilson, L | W 20:00 - 20:55 | 151 CRL | |
| | | | 03 | Hsieh-Wilson, L | MWF 09:00 - 09:55 R 20:00 - 20:55 | 153 NYS 151 CRL | |
| Ch 080 | + | Chemical Research | 01 | Dervan, P | A | A | P |
| | | | 02 | Hsieh-Wilson, L | A | A | P |
| | | | 03 | Barton, J | A | A | P |
| | | | 04 | Beauchamp, J | A | A | P |
| | | | 05 | Demirer, G | A | A | P |
| | | | 06 | Goddard, W | A | A | P |
| | | | 07 | Marcus, R | A | A | P |
| | | | 08 | Shan, S | A | A | P |
| | | | 09 | Bercaw, J | A | A | P |
| | | | 11 | Agapie, T | A | A | P |
| | | | 12 | Davis, M | A | A | P |
| | | | 13 | Chan, G | A | A | P |
| | | | 14 | Shapiro, M | A | A | P |
| | | | 15 | Arnold, F | A | A | P |
| | | | 17 | Gray, H | A | A | P |
| | | | 18 | Virgil, S | A | A | P |
| | | | 19 | Robb, M | A | A | P |
| | | | 20 | Kornfield, J | A | A | P |
| | | | 21 | Rossmann, G | A | A | P |

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|------------------|-------------------|---|---------|-------------------------|-----------|----------|--------------|
| CHEMISTRY | | | | | | | |
| Ch 080 | + | Chemical Research | 22 | Wei, L | A | A | P |
| | | | 27 | Okumura, M | A | A | P |
| | | | 29 | Peters, J | A | A | P |
| | | | 30 | Gao, W | A | A | P |
| | | | 35 | Stoltz, B | A | A | P |
| | | | 36 | Tirrell, D | A | A | P |
| | | | 37 | Reisman, S | A | A | P |
| | | | 38 | Weitekamp, D | A | A | P |
| | | | 39 | Lewis, N | A | A | P |
| | | | 40 | Rees, D | A | A | P |
| | | | 41 | Hoelz, A | A | A | P |
| | | | 42 | Fu, G | A | A | P |
| | | | 43 | Dougherty, D | A | A | P |
| | | | 44 | Hoffmann, M | A | A | P |
| | | | 46 | Clemons, W | A | A | P |
| | | | 47 | Blake, G | A | A | P |
| | | | 49 | Cushing, S | A | A | P |
| 50 | See, K | A | A | P | | | |
| 51 | Mayo, S | A | A | P | | | |
| 52 | Chandrasekaran, V | A | A | P | | | |
| 53 | Demirer, G | A | A | P | | | |
| Ch 081 | + | Independent Reading in Chemistry | 01 | Robb, M | A | A | P |
| | | | 02 | Reisman, S | A | A | P |
| | | | 03 | Hoelz, A | A | A | P |
| | | | 04 | Gray, H | A | A | P |
| | | | 05 | Stoltz, B | A | A | P |
| | | | 06 | Goddard, W | A | A | P |
| | | | 22 | Lewis, N | A | A | P |
| Ch 082 | + | Senior Thesis Research <i>9 units per term</i> | 01 | Rees, D / Okumura, M | A | A | P |
| | | | 02 | Shapiro, M / Okumura, M | A | A | P |
| | | | 03 | Okumura, M / Hoelz, A | A | A | P |
| | | | 05 | Agapie, T / Okumura, M | A | A | P |

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|------------------|-------|---|------------|------------------------------|---|----------|--------------|-----------------|---------|---|
| CHEMISTRY | | | | | | | | | | |
| Ch 082 | + | Senior Thesis Research <i>9 units per term</i> | 06 | Peters, J / Okumura, M | A | A | P | | | |
| | | | 07 | Tirrell, D / Okumura, M | A | A | P | | | |
| | | | 08 | Stoltz, B / Okumura, M | A | A | P | | | |
| | | | 09 | Gray, H / Okumura, M | A | A | P | | | |
| | | | 10 | Asimow, P / Okumura, M | A | A | P | | | |
| | | | 11 | Dougherty, D / Okumura, M | A | A | P | | | |
| | | | 12 | Wei, L / Okumura, M | A | A | P | | | |
| | | | 13 | Rossmann, G / Okumura, M | A | A | P | | | |
| | | | 14 | Reisman, S / Okumura, M | A | A | P | | | |
| | | | 15 | Hsieh-Wilson, L / Okumura, M | A | A | P | | | |
| | | | 16 | Hoelz, A / Okumura, M | A | A | P | | | |
| | | | 17 | Chan, G / Okumura, M | A | A | P | | | |
| | | | 18 | Arnold, F / Okumura, M | A | A | P | | | |
| | | | 19 | Hadt, R / Okumura, M | A | A | P | | | |
| | | | 20 | Okumura, M / Clemons, W | A | A | P | | | |
| | | | 21 | Okumura, M / Reisman, S | A | A | P | | | |
| | | | 22 | Goddard, W / Okumura, M | A | A | P | | | |
| | | | 23 | Robb, M / Okumura, M | A | A | P | | | |
| | | | 24 | Oka, Y / Okumura, M | A | A | P | | | |
| | | | 25 | Fu, G / Okumura, M | A | A | P | | | |
| | | | 26 | Newman, D / Okumura, M | A | A | P | | | |
| | | | Ch 090 | 2-0-1 | Oral Presentation <i>maximum enrollment: 12 students</i> | 01 | Bikle, K | W 10:00 - 11:55 | 101 SCH | P |
| | | | Ch/ChE 091 | 2-0-1 | Scientific Writing | 01 | Parker, C | M 14:00 - 15:55 | 101 SCH | G |

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|------------------|-------|---|----------|----------------------|--------------------------------------|--------------------|--------------|
| CHEMISTRY | | | | | | | |
| Ch 104 | 4-0-5 | Intermediate Organic Chemistry | 01 | Fu, G | MW 14:00 - 15:55 | 153 NYS | |
| Ch/Bi 110B | 4-0-8 | Introduction to Biochemistry | 01 | Rees, D | W 15:00 - 15:55 MWF 11:00 - 11:55 | 147 NYS 147 NYS | |
| Ch 120A | 3-0-6 | Nature of the Chemical Bond | 01 | Goddard, W | MWF 14:00 - 14:55 | 115 BCK | |
| Ch 125B | 3-0-6 | The Elements of Quantum Chemistry | 01 | Weitekamp, D | MWF 13:00 - 13:55 | 151 CRL | |
| Ch 126 | 3-0-6 | Molecular Spectroscopy | 01 | Winkler, J | TR 10:00 - 11:25 | 115 BCK | |
| Ch 135 | 3-0-6 | Chemical Kinetics and Reaction Dynamics | 01 | Okumura, M | TR 10:30 - 11:55 | 101 SCH | |
| ChE/Ch 137 | 2-1-6 | Data Science for Chemical Systems <i>Max enrollment is 15 students; Priority given to ChE undergrads</i> | 01 | Vicic, M | TR 10:30 - 11:55 | 102 SPL | |
| Ch/ChE 140A | 3-0-6 | Principles and Applications of Semiconductor Photoelectrochemistry | 01 | Lewis, N | TR 13:00 - 14:25 | 216 NYS | |
| Ch 153A | 3-0-6 | Advanced Inorganic Chemistry | 01 | Gray, H / Winkler, J | F 10:00 - 11:55 | 115 BCK | |
| Ch 154A | 4-0-5 | Organometallic Chemistry | 01 | Peters, J | TR 13:00 - 14:25 | 147 NYS | |
| ChE/Ch 164 | 3-0-6 | Introduction to Statistical Thermodynamics | 01 | Wang, Z / Chan, G | TR 10:30 - 11:55 | 106 SPL | |
| ESE/Ge/Ch 171 | 3-0-6 | Atmospheric Chemistry I | 01 | Wennberg, P | A | A | |
| ESE/Ch 176 | 3-0-6 | Environmental Physical Organic Chemistry | 01 | Diallo, M | TR 14:00 - 15:55 | 135 LLB | |
| Ch 180 | + | Chemical Research | 01 02 | Agapie, T Gray, H | A A | A A | P P |

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|------------------|--------|--|---------|--------------|-----------------|----------|--------------|
| CHEMISTRY | | | | | | | |
| Ch 180 | + | Chemical Research | 03 | Giapis, K | A | A | P |
| | | | 04 | Goddard, W | A | A | P |
| | | | 05 | Peters, J | A | A | P |
| | | | 6 | Eiler, J | A | A | P |
| BMB/Ch 202B | 1-0-0 | Biochemistry Seminar Course <i>To be held on Biochemistry Seminar days from 12-1pm (approx. 1-2 per month).</i> | 01 | Shan, S | R 12:00 - 12:55 | 320 BRN | P |
| Ch 213B | 1-0-11 | Advanced Ligand Field Theory | 01 | Gray, H | F 13:00 - 13:55 | 408 BCK | |
| Ch 279 | + | Rotations in Chemistry | 01 | Agapie, T | A | A | P |
| | | | 02 | Arnold, F | A | A | P |
| | | | 03 | Atwater, H | A | A | P |
| | | | 04 | Barton, J | A | A | P |
| | | | 05 | Beauchamp, J | A | A | P |
| | | | 06 | Bjorkman, P | A | A | P |
| | | | 07 | Blake, G | A | A | P |
| | | | 08 | Blanquart, G | A | A | P |
| | | | 09 | Campbell, J | A | A | P |
| | | | 10 | Chan, G | A | A | P |
| | | | 11 | Clemons, W | A | A | P |
| | | | 12 | Cushing, S | A | A | P |
| | | | 13 | Davis, M | A | A | P |
| | | | 14 | Dervan, P | A | A | P |
| | | | 15 | Dougherty, D | A | A | P |
| | | | 16 | Elowitz, M | A | A | P |
| | | | 17 | Fu, G | A | A | P |
| | | | 18 | Goddard, W | A | A | P |
| | | | 19 | Gray, H | A | A | P |
| | | | 20 | Greer, J | A | A | P |
| | | | 22 | Hadt, R | A | A | P |
| | | | 24 | Hoelz, A | A | A | P |
| | | | 25 | Hoffmann, M | A | A | P |

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| CHEMISTRY | | | | | | | |
| Ch 279 | + | Rotations in Chemistry | 26 | Hsieh-Wilson, L | A | A | P |
| | | | 27 | Ismagilov, R | A | A | P |
| | | | 29 | Kornfield, J | A | A | P |
| | | | 30 | Lester, H | A | A | P |
| | | | 31 | Lewis, N | A | A | P |
| | | | 32 | Mayo, S | A | A | P |
| | | | 34 | Newman, D | A | A | P |
| | | | 35 | Okumura, M | A | A | P |
| | | | 37 | Peters, J | A | A | P |
| | | | 38 | Pierce, N | A | A | P |
| | | | 39 | Rees, D | A | A | P |
| | | | 40 | Reisman, S | A | A | P |
| | | | 41 | Robb, M | A | A | P |
| | | | 43 | See, K | A | A | P |
| | | | 44 | Seinfeld, J | A | A | P |
| | | | 45 | Shan, S | A | A | P |
| | | | 46 | Shapiro, M | A | A | P |
| | | | 47 | Sternberg, P | A | A | P |
| | | | 48 | Stoltz, B | A | A | P |
| | | | 49 | Tirrell, D | A | A | P |
| 50 | Wang, Z | A | A | P | | | |
| 51 | Wei, L | A | A | P | | | |
| 52 | Weitekamp, D | A | A | P | | | |
| 53 | Wennberg, P | A | A | P | | | |
| 54 | Manthiram, K | A | A | P | | | |
| 55 | Nelson, H | A | A | P | | | |
| Ch 280 | + | Chemical Research | 01 | Arnold, F | A | A | P |
| | | | 02 | Bjorkman, P | A | A | P |
| | | | 03 | Barton, J | A | A | P |
| | | | 04 | Beauchamp, J | A | A | P |
| | | | 05 | Bercaw, J | A | A | P |
| | | | 06 | Blake, G | A | A | P |
| | | | 07 | Chan, G | A | A | P |

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|------------------|-------|-------------------|---------|-----------------|-----------|----------|--------------|
| CHEMISTRY | | | | | | | |
| Ch 280 | + | Chemical Research | 08 | Cai, L | A | A | P |
| | | | 09 | Fu, G | A | A | P |
| | | | 10 | Davis, M | A | A | P |
| | | | 11 | Dervan, P | A | A | P |
| | | | 12 | Dougherty, D | A | A | P |
| | | | 13 | Goentoro, L | A | A | P |
| | | | 15 | Reisman, S | A | A | P |
| | | | 16 | Goddard, W | A | A | P |
| | | | 17 | Gray, H | A | A | P |
| | | | 19 | Hsieh-Wilson, L | A | A | P |
| | | | 20 | Kornfield, J | A | A | P |
| | | | 21 | Wang, Z | A | A | P |
| | | | 22 | Lewis, N | A | A | P |
| | | | 23 | Atwater, H | A | A | P |
| | | | 24 | Hoffmann, M | A | A | P |
| | | | 25 | Mayo, S | A | A | P |
| | | | 26 | Clemons, W | A | A | P |
| | | | 27 | Okumura, M | A | A | P |
| | | | 28 | Ismagilov, R | A | A | P |
| | | | 29 | Peters, J | A | A | P |
| | | | 30 | Rees, D | A | A | P |
| | | | 31 | Cushing, S | A | A | P |
| | | | 32 | Sternberg, P | A | A | P |
| | | | 33 | Newman, D | A | A | P |
| | | | 34 | Seinfeld, J | A | A | P |
| | | | 35 | Stoltz, B | A | A | P |
| | | | 36 | Tirrell, D | A | A | P |
| | | | 38 | Weitekamp, D | A | A | P |
| | | | 39 | Blanquart, G | A | A | P |
| | | | 40 | Greer, J | A | A | P |
| | | | 41 | Atwater, H | A | A | P |
| | | | 42 | Lester, H | A | A | P |
| | | | 43 | Campbell, J | A | A | P |

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| CHEMISTRY | | | | | | | |
| Ch 280 | + | Chemical Research | 44 | Pierce, N | A | A | P |
| | | | 45 | Asimow, P | A | A | P |
| | | | 46 | Wennberg, P | A | A | P |
| | | | 47 | Eiler, J | A | A | P |
| | | | 48 | Elowitz, M | A | A | P |
| | | | 49 | Shan, S | A | A | P |
| | | | 50 | Agapie, T | A | A | P |
| | | | 51 | Hoelz, A | A | A | P |
| | | | 52 | Hadt, R | A | A | P |
| | | | 53 | Shapiro, M | A | A | P |
| | | | 55 | Adkins, J | A | A | P |
| | | | 56 | See, K | A | A | P |
| | | | 57 | Tai, Y | A | A | P |
| | | | 58 | Parker, J | A | A | P |
| | | | 59 | Robb, M | A | A | P |
| | | | 60 | Wei, L | A | A | P |
| | | | 61 | Voorhees, R | A | A | P |
| | | | 62 | Eiler, J | A | A | P |
| | | | 63 | Van Valen, D | A | A | P |
| | | | 64 | Minnich, A | A | A | P |
| | | | 65 | Faber, K | A | A | P |
| | | | 66 | Bernardi, M | A | A | P |
| | | | 67 | Nelson, H | A | A | P |
| | | | 68 | Pachter, L | A | A | P |
| | | | 69 | Semlow, D | A | A | P |
| | | | 70 | Anandkumar, A | A | A | P |
| | | | 71 | Chong, S | A | A | P |
| | | | 72 | Manthiram, K | A | A | P |
| | | | 73 | Chou, T | A | A | P |
| | | | 74 | McFall-Ngai, M | A | A | P |
| | | | 75 | Chong, S | A | A | P |
| | | | 76 | Brown, M | A | A | P |
| | | | 77 | Daraio, C | A | A | P |

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|-------------------------------------|-----------|---|---------|-------------------|-------------------|----------|--------------|
| CHEMISTRY | | | | | | | |
| Ch 280 | + | Chemical Research | 78 | Demirer, G | A | A | P |
| | | | 79 | Zernicka-Goetz, M | A | A | P |
| CIVIL ENGINEERING | | | | | | | |
| Ae/APh/CE/ME 101B | 3-0-6 | Fluid Mechanics | 01 | Pullin, D | MWF 10:00 - 10:55 | 133 GUG | G |
| Ae/AM/CE/ME 102B | 3-0-6 | Mechanics of Structures and Solids | 01 | Ravichandran, G | TR 09:00 - 10:25 | 115 GTL | G |
| CE/Ae/AM 108B | 3-5-1 | Computational Mechanics | 01 | Ramarathinam, N | MTR 11:00 - 11:55 | 390 FIR | P |
| ME/CE/Ge/ESE 146 | 3-0-6 | Computational Methods for Flow in Porous Media | 01 | Fu, X | MW 13:00 - 14:25 | 115 GTL | G |
| AM/CE/ME 150B | 1-0-0 | Graduate Engineering Seminar | 01 | Lapusta, N | R 11:00 - 11:55 | 135 GTL | P |
| Ae/CE 165B | 2-2-5 | Mechanics of Composite Materials and Structures | 01 | Pellegrino, S | TR 16:00 - 16:55 | 390 FIR | G |
| CE 200 | + | Advanced Work in Civil Engineering | 01 | Asimaki, D | A | A | P |
| CE 300 | + | Research in Civil Engineering | 01 | Asimaki, D | A | A | P |
| | | | 02 | Heaton, T | A | A | P |
| | | | 03 | Daraio, C | A | A | P |
| | | | 04 | Pellegrino, S | A | A | P |
| | | | 05 | Lapusta, N | A | A | P |
| | | | 06 | Andrade, J | A | A | P |
| | | | 07 | Fu, X | A | A | P |
| COMPUTATION & NEURAL SYS | | | | | | | |
| Psy/CNS 105B | 1.5-0-3.5 | Frontiers in Neuroeconomics | 01 | O'Doherty, J | T 14:30 - 15:55 | A | |

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| COMPUTATION & NEURAL SYS | | | | | | | |
| Psy/CNS 132 | 3-0-6 | Computational Reinforcement-learning in Biological and Non-biological Systems | 01 | O'Doherty, J | MW 14:30 - 15:55 | A | |
| NB/Bi/CNS 152 | 2-0-4 | Neural Circuits and Physiology of Homeostatic Regulation | 01 | Oka, Y | T 09:00 - 10:55 | B101 BBB | |
| CMS/CS/CNS/EE/IDS | 3-3-6 | Machine Learning & Data Mining | 01 | Yue, Y | TR 14:30 - 15:55 | 134 (Auditorium) BCK | |
| CS/CNS/EE/IDS 165 | 3-3-6 | Foundations of Machine Learning and Statistical Inference | 01 | Anandkumar, A | TR 13:00 - 14:25 | 314 ANB | |
| CNS180 | + | Research in Computation and Neural Systems | 01 | Burdick, J | A | A | P |
| | | | 02 | Murray, R | A | A | P |
| | | | 03 | Perona, P | A | A | P |
| | | | 04 | Arnold, F | A | A | P |
| | | | 05 | Oka, Y | A | A | P |
| | | | 06 | Hoffmann, M | A | A | P |
| | | | 07 | Allman, J | A | A | P |
| | | | 08 | Lester, H | A | A | P |
| | | | 09 | Hong, E | A | A | P |
| | | | 10 | Pachter, L | A | A | P |
| | | | 11 | Murray, R | A | A | P |
| | | | 12 | Allman, J | A | A | P |
| | | | 13 | Gradinaru, V | A | A | P |
| | | | 14 | Shimojo, S | A | A | P |
| | | | 16 | Wold, B | A | A | P |
| | | | 17 | Winfrey, E | A | A | P |
| | | | 18 | Rangel, A | A | A | P |
| | | | 19 | Siapas, A | A | A | P |
| | | | 20 | Prober, D | A | A | P |
| | | | 22 | Andersen, R | A | A | P |
| | | | 23 | Elowitz, M | A | A | P |
| | | | 24 | Anderson, D | A | A | P |
| | | | 25 | Adolphs, R | A | A | P |
| | | | 26 | Kennedy, M | A | A | P |

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| COMPUTATION & NEURAL SYS | | | | | | | |
| CNS180 | + | Research in Computation and Neural Systems | 28 | O'Doherty, J | A | A | P |
| | | | 29 | Camerer, C | A | A | P |
| | | | 30 | Meister, M | A | A | P |
| | | | 31 | Shapiro, M | A | A | P |
| | | | 32 | Yue, Y | A | A | P |
| | | | 33 | Thomson, M | A | A | P |
| | | | 34 | Anandkumar, A | A | A | P |
| | | | 35 | Dickinson, M | A | A | P |
| | | | 36 | Rutishauser, U | A | A | P |
| | | | 37 | Ames, A | A | A | P |
| | | | 38 | Lois, C | A | A | P |
| | | | 40 | Hong, E | A | A | P |
| | | | 41 | Van Valen, D | A | A | P |
| | | | 42 | Mobbs, D | A | A | P |
| | | | 43 | Mazmanian, S | A | A | P |
| | | | 44 | Gkioxari, G | A | A | P |
| BE/CS/CNS/Bi 191A | 3-0-6 | Biomolecular Computation | 01 | Winfree, E | TR 10:30 - 11:55 | 142 KCK | G |
| CNS/Bi/NB 247 | 2-0-4 | Cerebral Cortex | 01 | Andersen, R | TR 13:00 - 13:55 | 333 BCK | |
| CNS280 | + | Research in Computation and Neural Systems | 01 | Meister, M | A | A | P |
| | | | 02 | Elowitz, M | A | A | P |
| | | | 03 | Andersen, R | A | A | P |
| | | | 04 | Oka, Y | A | A | P |
| | | | 05 | Winfree, E | A | A | P |
| | | | 06 | Siapas, A | A | A | P |
| | | | 08 | Adolphs, R | A | A | P |
| | | | 09 | Murray, R | A | A | P |
| | | | 12 | Scherer, A | A | A | P |
| | | | 13 | Camerer, C | A | A | P |
| | | | 14 | Sternberg, P | A | A | P |
| | | | 15 | Perona, P | A | A | P |

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|-------------------------------------|----------------|---|---------|--------------|-------------------|-------------------------|--------------|
| COMPUTATION & NEURAL SYS | | | | | | | |
| CNS280 | + | Research in Computation and Neural Systems | 16 | Allman, J | A | A | P |
| | | | 17 | Gradinaru, V | A | A | P |
| | | | 18 | Pachter, L | A | A | P |
| | | | 19 | Bruck, J | A | A | P |
| | | | 20 | Burdick, J | A | A | P |
| | | | 21 | Shimojo, S | A | A | P |
| | | | 22 | Lester, H | A | A | P |
| | | | 23 | Wold, B | A | A | P |
| | | | 24 | Dickinson, M | A | A | P |
| | | | 25 | Hoffmann, M | A | A | P |
| | | | 26 | Rangel, A | A | A | P |
| | | | 28 | O'Doherty, J | A | A | P |
| | | | 29 | Thomson, M | A | A | P |
| | | | 30 | Lois, C | A | A | P |
| | | | 31 | Mobbs, D | A | A | P |
| | | | 32 | Hong, E | A | A | P |
| | | | 33 | Van Valen, D | A | A | P |
| | | | 34 | Parker, J | A | A | P |
| 35 | Rutishauser, U | A | A | P | | | |
| 36 | Gkioxari, G | A | A | P | | | |
| SS/Psy/CNS 285 | 1.5-0-1.5 | Topics in Social, Cognitive, and Decision Sciences | 01 | Pomatto, L | M 17:00 - 18:25 | A | P |
| COMPUTER SCIENCE | | | | | | | |
| CS 002 | 3-5-1 | Introduction to Programming Methods <i>maximum enrollment: 16 students per section</i> | 01 | Blank, A | MWF 14:00 - 14:55 | 134 (Auditorium) BCK | P |
| | | | | | T 10:00 - 10:55 | 106 ANB | |
| | | | 02 | Blank, A | MWF 14:00 - 14:55 | 134 (Auditorium) BCK | P |
| | | | | | T 11:00 - 11:55 | 106 ANB | |
| | | | 03 | Blank, A | MWF 14:00 - 14:55 | 134 (Auditorium) BCK | P |
| | | | | | T 12:00 - 12:55 | 106 ANB | |
| | | | 04 | Blank, A | MWF 14:00 - 14:55 | 134 (Auditorium) BCK | P |

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| Course Offering | Units | Offering Title | Section | Instructor | Days/Time | Location | Grade Scheme |
|-------------------------|-------------------------|--|---------|-----------------------|--------------------|-------------------------|--------------|
| COMPUTER SCIENCE | | | | | | | |
| CS 002 | 3-5-1 | Introduction to Programming Methods <i>maximum enrollment: 16 students per section</i> | 04 | Blank, A | T 13:00 - 13:55 | 106 ANB | P |
| | | | 05 | Blank, A | MWF 14:00 - 14:55 | 134 (Auditorium) BCK | P |
| | | | 06 | Blank, A | T 14:00 - 14:55 | 106 ANB | |
| | | | | | MWF 14:00 - 14:55 | 134 (Auditorium) BCK | P |
| | | | 07 | Blank, A | T 15:00 - 15:55 | 106 ANB | |
| | | | | | MWF 14:00 - 14:55 | 134 (Auditorium) BCK | P |
| | | | 08 | Blank, A | T 16:00 - 16:55 | 106 ANB | |
| | | | | | MWF 14:00 - 14:55 | 134 (Auditorium) BCK | P |
| | | | 09 | Blank, A | T 17:00 - 17:55 | 106 ANB | |
| MWF 14:00 - 14:55 | 134 (Auditorium) BCK | P | | | | | |
| | | | 09 | Blank, A | MWF 14:00 - 14:55 | 134 (Auditorium) BCK | P |
| | | | | | T 09:00 - 09:55 | 106 ANB | |
| CS 004 | 3-4-2 | Fundamentals of Computer Programming | 01 | Vanier, M | MWF 15:00 - 15:55 | 134 (Auditorium) BCK | G |
| Ma/CS 006B | 3-0-6 | Introduction to Discrete Mathematics | 01 | Babecki, C | MWF 13:00 - 13:55 | 210 RSC | |
| EE/CS 010A | 2-3-1 | Introduction to Digital Logic and Embedded Systems | 01 | George, G | TF 15:00 - 15:55 | B270 MRE | |
| CS 011 | 0-3-0 | Computer Language Lab <i>CS 1 or instructor's permission is required. // Sec 1: C</i> | 01 | Vanier, M | OM,M 21:00 - 21:55 | 105 ANB | P |
| CS 012 | + | Student-Taught Topics in Computing <i>Variable Units between 1-9 // Sec 9: Single Board Computers in Research</i> | 09 | Blank, A | OM,M 20:00 - 20:55 | 104 ANB | P |
| CS 021 | 3-0-6 | Decidability and Tractability | 01 | Umans, C | MWF 13:00 - 13:55 | 105 ANB | G |
| CS 042 | 2-2-2 | Computer Science Education in K-14 Settings | 01 | Ralph, C / Wierman, A | W 14:00 - 14:55 | 121 ANB | P |

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| COMPUTER SCIENCE | | | | | | | |
| CS 080B | + | Undergraduate Thesis | 01 | Chandy, K | A | A | P |
| | | | 02 | Wierman, A | A | A | P |
| | | | 03 | Schroeder, P | A | A | P |
| | | | 04 | Winfree, E | A | A | P |
| | | | 05 | Barr, A | A | A | P |
| | | | 06 | Murray, R | A | A | P |
| | | | 07 | Vidick, T | A | A | P |
| | | | 08 | Yue, Y | A | A | P |
| | | | 09 | Perona, P | A | A | P |
| | | | 10 | Umans, C | A | A | P |
| | | | 11 | Schulman, L | A | A | P |
| | | | 13 | Bruck, J | A | A | P |
| | | | 14 | Chung, S | A | A | P |
| | | | 15 | Virgil, S | A | A | P |
| | | | 16 | Katz, N | A | A | P |
| | | | 17 | Anandkumar, A | A | A | P |
| | | | 18 | Adolphs, R | A | A | P |
| | | | 19 | Rangel, A | A | A | P |
| | | | 20 | Bouman, K | A | A | P |
| | | | 21 | Bruno, O | A | A | P |
| | | | 22 | Fischer, W | A | A | P |
| | | | 23 | Mirhosseini, M | A | A | P |
| | | | 24 | Burdick, J | A | A | P |
| | | | CS 081B | + | Undergraduate Projects in Computer Science <i>enrollment by instructor permission only</i> | 01 | Pinkston, D |
| 02 | Winfree, E | A | | | | A | P |
| 03 | Barr, A | A | | | | A | P |
| 04 | Chandy, K | A | | | | A | P |
| 05 | Mahabal, A | A | | | | A | P |
| 06 | Wierman, A | A | | | | A | P |
| 08 | Rangel, A | A | | | | A | P |
| 09 | Vanier, M | A | | | | A | P |
| 10 | Perona, P | A | | | | A | P |
| 11 | Murray, R | A | | | | A | P |

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| COMPUTER SCIENCE | | | | | | | |
| CS 081B | + | Undergraduate Projects in Computer Science <i>enrollment by instructor permission only</i> | 12 | Adolphs, R | A | A | P |
| | | | 13 | Umans, C | A | A | P |
| | | | 14 | Burdick, J | A | A | P |
| | | | 15 | Low, S | A | A | P |
| | | | 16 | Plott, C | A | A | P |
| | | | 17 | Yue, Y | A | A | P |
| | | | 18 | Hassibi, B | A | A | P |
| | | | 19 | Djorgovski, S | A | A | P |
| | | | 20 | Schroeder, P | A | A | P |
| | | | 21 | Alvarez, R | A | A | P |
| | | | 23 | Ralph, C | A | A | P |
| | | | 24 | George, G | A | A | P |
| | | | 25 | Vidick, T | A | A | P |
| | | | 26 | Schulman, L | A | A | P |
| | | | 27 | Bunn, J | A | A | P |
| | | | 28 | Preskill, J | A | A | P |
| | | | 29 | Abu-Mostafa, Y | A | A | P |
| | | | 30 | Chung, S | A | A | P |
| | | | 31 | Thomson, M | A | A | P |
| | | | 32 | Chung, S | A | A | P |
| | | | 33 | Qian, L | A | A | P |
| | | | 34 | Blank, A | A | A | P |
| | | | 35 | Ames, A | A | A | P |
| | | | 36 | Bruck, J | A | A | P |
| | | | 37 | Rangel, A | A | A | P |
| | | | 38 | Tamuz, O | A | A | P |
| 39 | Anandkumar, A | A | A | P | | | |
| 40 | Van Valen, D | A | A | P | | | |
| 41 | Bouman, K | A | A | P | | | |
| 42 | Parker, J | A | A | P | | | |
| 44 | Bruno, O | A | A | P | | | |
| 45 | Alvarez, R | A | A | P | | | |
| 46 | Hovik, M | A | A | P | | | |

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|-------------------------|-------------|---|---------|----------------|------------------|----------|--------------|
| COMPUTER SCIENCE | | | | | | | |
| CS 081B | + | Undergraduate Projects in Computer Science <i>enrollment by instructor permission only</i> | 47 | Shapiro, M | A | A | P |
| | | | 48 | Mushkin, H | A | A | P |
| | | | 49 | Baptista, R | A | A | P |
| | | | 50 | Mazumdar, E | A | A | P |
| | | | 51 | Tropp, J | A | A | P |
| CS 090 | + | Undergraduate Reading in Computer Science <i>enrollment by instructor permission only</i> | 01 | Abu-Mostafa, Y | A | A | P |
| | | | 02 | Low, S | A | A | P |
| | | | 03 | Blank, A | A | A | P |
| | | | 04 | Schroeder, P | A | A | P |
| | | | 05 | Winfree, E | A | A | P |
| | | | 06 | Umans, C | A | A | P |
| | | | 08 | Barr, A | A | A | P |
| | | | 10 | Perona, P | A | A | P |
| | | | 11 | Chandy, K | A | A | P |
| | | | 13 | Murray, R | A | A | P |
| | | | 14 | Wierman, A | A | A | P |
| | | | 15 | Vanier, M | A | A | P |
| | | | 16 | Yue, Y | A | A | P |
| | | | 17 | Ralph, C | A | A | P |
| | | | 18 | Schulman, L | A | A | P |
| 19 | Anderson, D | A | A | P | | | |
| 20 | Bouman, K | A | A | P | | | |
| 21 | Chung, S | A | A | P | | | |
| 22 | Gkioxari, G | A | A | P | | | |
| 23 | Stuart, A | A | A | P | | | |
| CS 101 | 0-0-0 | Special Topics in Computer Science: 3D Deep Learning <i>units (3-3-3)</i> | 01 | Gkioxari, G | TR 13:00 - 14:25 | 213 ANB | G |
| CS 102B | + | Seminar in Computer Science | 01 | Staff | A | A | |
| CS 103B | + | Reading in Computer Science | 01 | Staff | A | A | P |

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|-------------------------|-------|---|---------|--------------------------|--------------------|-------------------------|--------------|
| COMPUTER SCIENCE | | | | | | | |
| Ma/CS 106B | 3-0-6 | Introduction to Discrete Mathematics | 01 | Babecki, C | MWF 13:00 - 13:55 | 387 LINDE | |
| HPS/PI/CS 110 | 3-0-6 | Causation and Explanation <i>maximum enrollment: 15 students per section</i> | 01 | Eberhardt, F | TR 13:00 - 14:25 | A | G |
| | | | 02 | Eberhardt, F | TR 14:30 - 15:55 | A | G |
| CS 111 | 0-3-0 | Graduate Programming Practicum <i>Sec I: C</i> | 01 | Vanier, M | OM,M 21:00 - 21:55 | 105 ANB | P |
| Ec/ACM/CS 112 | 3-0-6 | Bayesian Statistics | 01 | Rangel, A | TR 10:30 - 11:55 | B122 GTS | |
| Ma/CS 117B | 3-0-6 | Computability Theory | 01 | Ervin, G | TR 13:00 - 14:25 | 387 LINDE | |
| EE/CS 119B | 3-3-3 | Advanced Digital Systems Design | 01 | George, G | MF 13:00 - 14:25 | B270 MRE | |
| CS/IDS 121 | 3-0-6 | Relational Databases | 01 | Hovik, M | MWF 10:00 - 10:55 | 105 ANB | G |
| CS 128 | 3-0-6 | Interactive Theorem Proving | 01 | Vanier, M | MWF 11:00 - 11:55 | 314 ANB | G |
| CS 130 | 3-3-3 | Software Engineering | 01 | Pinkston, D | MWF 11:00 - 11:55 | 105 ANB | |
| ME/CS/EE 133B | 3-2-4 | Robotics | 01 | Niemeyer, G | MWF 15:00 - 15:55 | 135 GTL | |
| ME/CS/EE 134 | 1-7-1 | Robotic Systems | 01 | Niemeyer, G / Peticco, M | MWF 13:00 - 13:55 | 135 GTL | |
| CMS/CS/Ec/EE 144 | 3-4-5 | Networks: Structure Economics | 01 | Mazumdar, E | MWF 14:30 - 15:55 | 104 ANB | |
| CS/EE 146 | 3-3-3 | Control and Optimization of Networks | 01 | Low, S | TR 10:30 - 11:55 | 314 ANB | |
| CMS/CS/CNS/EE/IDS | 3-3-6 | Machine Learning & Data Mining | 01 | Yue, Y | TR 14:30 - 15:55 | 134 (Auditorium) BCK | |

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|-------------------------|-------|--|---------|-----------------------|--------------------------------------|----------------------|--------------|
| COMPUTER SCIENCE | | | | | | | |
| EE/CS/IDS 160 | 3-0-6 | Fundamentals of Information Transmission and Storage | 01 | Kostina, V | TR 10:30 - 11:55 | B280 MRE | |
| CS/IDS 162 | 3-0-6 | Data, Algorithms and Society <i>taught concurrently with CS/IDS 162 // maximum enrollment: 15 students between VC 162 and CS/IDS 162 // instructor permission required to add // application required https://forms.gle/HxCECWgsUaujvT5d8</i> | 01 | Ralph, C / Mushkin, H | TR 14:30 - 15:55 | 104 ANB | G |
| CS/CNS/EE/IDS 165 | 3-3-6 | Foundations of Machine Learning and Statistical Inference | 01 | Anandkumar, A | TR 13:00 - 14:25 | 314 ANB | |
| CS/IDS 172 | 3-2-4 | Distributed Computing | 01 | Chandy, K | TR 13:00 - 14:25 | 121 ANB | P |
| CS 180 | + | Master's Thesis Research | 01 | Abu-Mostafa, Y | A | A | P |
| | | | 02 | Umans, C | A | A | P |
| | | | 04 | Chandy, K | A | A | P |
| | | | 06 | Kitaev, A | A | A | P |
| | | | 07 | Low, S | A | A | P |
| | | | 08 | Martin, A | A | A | P |
| | | | 09 | Yariv, A | A | A | P |
| | | | 10 | Barr, A | A | A | P |
| | | | 11 | Schroeder, P | A | A | P |
| | | | 12 | Wierman, A | A | A | P |
| | | | 13 | Winfree, E | A | A | P |
| | | | 14 | Wold, B | A | A | P |
| | | | 17 | Perona, P | A | A | P |
| BE/CS/CNS/Bi 191A | 3-0-6 | Biomolecular Computation | 01 | Winfree, E | TR 10:30 - 11:55 | 142 KCK | G |
| BE/CS 196A | 2-4-6 | Design and Construction of Programmable Molecular Systems <i>maximum enrollment: 16 students</i> | 01 | Qian, L | TR 13:00 - 13:55 TR 14:00 - 15:55 | B136 KRK B127 KRK | |

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|--|-------------|--|---------|-------------------|-------------------|-------------------------|--------------|
| COMPUTER SCIENCE | | | | | | | |
| Ph/CS 219B | 3-0-6 | Quantum Computation | 01 | Kitaev, A | MW 14:30 - 15:55 | 103 DWN | P |
| CS 280 | + | Research in Computer Science | 01 | Abu-Mostafa, Y | A | A | P |
| | | | 02 | Umans, C | A | A | P |
| | | | 03 | Barr, A | A | A | P |
| | | | 04 | Chandy, K | A | A | P |
| | | | 06 | Cvitanic, J | A | A | P |
| | | | 07 | Winfree, E | A | A | P |
| | | | 08 | Low, S | A | A | P |
| | | | 09 | Martin, A | A | A | P |
| | | | 10 | Winfree, E | A | A | P |
| | | | 11 | Perona, P | A | A | P |
| | | | 12 | Schroeder, P | A | A | P |
| | | | 13 | Chandrasekaran, V | A | A | P |
| | | | 14 | Kitaev, A | A | A | P |
| | | | 15 | Wierman, A | A | A | P |
| 17 | Doyle, J | A | A | P | | | |
| 18 | Murray, R | A | A | P | | | |
| 19 | Vidick, T | A | A | P | | | |
| 20 | Yue, Y | A | A | P | | | |
| 21 | Gkioxari, G | A | A | P | | | |
| CS 282B | + | Reading In Computer Science | 01 | Staff | A | A | P |
| COMPUTING AND MATHEMATICAL SCIENCES | | | | | | | |
| CMS/CS/Ec/EE 144 | 3-4-5 | Networks: Structure Economics | 01 | Mazumdar, E | MWF 14:30 - 15:55 | 104 ANB | |
| CMS/CS/CNS/EE/IDS | 3-3-6 | Machine Learning & Data Mining | 01 | Yue, Y | TR 14:30 - 15:55 | 134 (Auditorium) BCK | |
| CMS290B | 1-0-0 | Computing and Mathematical Sciences Colloquium | 01 | Hoffmann, F | M 16:00 - 16:55 | 105 ANB | P |

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| COMPUTING AND MATHEMATICAL SCIENCES | | | | | | | |
| CMS300 | + | Research in Computing and Mathematical Sciences | 01 | Wierman, A | A | A | P |
| | | | 02 | Vidick, T | A | A | P |
| | | | 03 | Beck, J | A | A | P |
| | | | 04 | Burdick, J | A | A | P |
| | | | 05 | Doyle, J | A | A | P |
| | | | 06 | Murray, R | A | A | P |
| | | | 07 | Owhadi, H | A | A | P |
| | | | 08 | Barr, A | A | A | P |
| | | | 09 | Chandrasekaran, V | A | A | P |
| | | | 11 | Low, S | A | A | P |
| | | | 12 | Perona, P | A | A | P |
| | | | 13 | Schroeder, P | A | A | P |
| | | | 14 | Schulman, L | A | A | P |
| | | | 15 | Umans, C | A | A | P |
| | | | 16 | Winfrey, E | A | A | P |
| | | | 17 | Yue, Y | A | A | P |
| | | | 18 | Chung, S | A | A | P |
| | | | 19 | Pachter, L | A | A | P |
| | | | 20 | Anandkumar, A | A | A | P |
| | | | 21 | Stuart, A | A | A | P |
| | | | 22 | Thomson, M | A | A | P |
| | | | 23 | Van Valen, D | A | A | P |
| | | | 24 | Bouman, K | A | A | P |
| | | | 25 | Bruck, J | A | A | P |
| | | | 26 | Mazumdar, E | A | A | P |
| | | | 27 | Gkioxari, G | A | A | P |
| | | | CONTROL & DYNAMICAL SYSTEMS | | | | |
| CDS090B | 0-0-9 | Senior Thesis in Control & Dynamical Systems | 01 | Ames, A | A | A | G |
| CDS131 | 3-0-9 | Linear Systems Theory | 01 | Doyle, J | MW 13:00 - 14:25 | 314 ANB | |

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| CONTROL & DYNAMICAL SYSTEMS | | | | | | | |
| CDS190 | + | Independent Work in Control and Dynamical Systems | 01 | Staff | A | A | P |
| CDS232 | 3-0-6 | Nonlinear Dynamics | 01 | Ames, A | MWF 16:00 - 17:25 | 135 GTL | G |
| ME/CDS/EE 234A | 3-3-3 | Advanced Robotics: Planning | 01 | Burdick, J | TR 13:00 - 14:25 | 115 GTL | G |
| CDS245 | 3-0-6 | Data-driven Control | 01 | Chung, S | TR 10:30 - 11:55 | 104 ANB | |
| CDS300B | + | Research in Control and Dynamical Systems | 01 | Burdick, J | A | A | P |
| | | | 02 | Adolphs, R | A | A | P |
| | | | 03 | Doyle, J | A | A | P |
| | | | 04 | Owhadi, H | A | A | P |
| | | | 05 | Siapas, A | A | A | P |
| | | | 06 | Goentoro, L | A | A | P |
| | | | 07 | Dickinson, M | A | A | P |
| | | | 08 | Murray, R | A | A | P |
| | | | 11 | Elowitz, M | A | A | P |
| | | | 13 | Ortiz, M | A | A | P |
| | | | 14 | Beck, J | A | A | P |
| | | | 16 | Ames, A | A | A | P |
| | | | 17 | Chung, S | A | A | P |
| ECONOMICS | | | | | | | |
| Ec 011 | 3-2-4 | Introduction to Economics | 01 | Rangel, A | TR 13:00 - 14:25 | A | |
| Ec 097 | + | Undergraduate Research | 01 | Pomatto, L | A | A | P |
| | | <i>Instructor permission required prior to registering</i> | 02 | Nielsen, K | A | A | P |
| | | | 03 | Niemeyer, A | A | A | P |
| | | | 04 | Saito, K | A | A | P |
| Ec 098B | + | Senior Research and Thesis | 01 | Staff | A | A | P |
| | | <i>Instructor permission required prior to</i> | | | | | |

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| ECONOMICS | | | | | | | |
| Ec 101 | 3-0-6 | Selected Topics in Economics: Markets, Politics and Growth in China 1700-2020 <i>maximum enrollment: 15 undergraduate students</i> | 01 | Rosenthal, J | MWF 14:00 - 14:55 | A | G |
| Ec/ACM/CS 112 | 3-0-6 | Bayesian Statistics | 01 | Rangel, A | TR 10:30 - 11:55 | B122 GTS | |
| Ec 121B | 3-0-6 | Theory of Value | 01 | Saito, K | MW 10:30 - 11:55 | A | G |
| Ec/PS 124 | 3-0-6 | Identification Problems in the Social Sciences | 01 | Sherman, R | TR 14:30 - 16:00 | A | |
| Ec 129 | 3-0-6 | Economic History of the United States <i>Designated as Writing Intensive Course</i> | 01 | Janas, P | TR 13:00 - 14:25 | A | |
| Ec 136 | 3-0-6 | Behavioral Decision Theory | 01 | Saito, K | MW 13:00 - 14:25 | A | G |
| CMS/CS/Ec/EE 144 | 3-4-5 | Networks: Structure Economics | 01 | Mazumdar, E | MWF 14:30 - 15:55 | 104 ANB | |
| ESE/ME/EST/Ec/ChE/ | 3-0-0 | Climate Change Impacts, Mitigation and Adaptation <i>maximum enrollment: 25 students</i> | 01 | Wennberg, P / Druckenmiller, H / Fromer, N | W 11:00 - 12:55 | 210 RSC | |
| ELECTRICAL ENGINEERING | | | | | | | |
| EE 002 | 1-0-0 | Electrical Engineering Entrepreneurial and Research Seminar | 01 | Yang, C | W 12:00 - 12:55 | B270 MRE | P |
| EE/CS 010A | 2-3-1 | Introduction to Digital Logic and Embedded Systems | 01 | George, G | TF 15:00 - 15:55 | B270 MRE | |
| APh/EE 023 | 3-0-6 | Demonstration Lectures in Classical and Quantum Photonics | 01 | Matsko, A | TR 09:00 - 10:25 | 142 KCK | |
| EE/APh 040 | 3-0-6 | Physics of Electrical Engineering | 01 | Marandi, A | MW 13:00 - 14:25 | B280 MRE | |

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|-------------------------------|---------------------|----------------|---------|-------------------|---|----------|--------------|---|---|---|
| ELECTRICAL ENGINEERING | | | | | | | | | | |
| EE 080B | + | Senior Thesis | 01 | Hajimiri, S | A | A | P | | | |
| | | | 02 | Effros, M | A | A | P | | | |
| | | | 03 | Doyle, J | A | A | P | | | |
| | | | 04 | Tai, Y | A | A | P | | | |
| | | | 05 | Hassibi, B | A | A | P | | | |
| | | | 06 | Wang, L | A | A | P | | | |
| | | | 07 | George, G | A | A | P | | | |
| | | | 08 | Emami, A | A | A | P | | | |
| | | | 11 | Scherer, A | A | A | P | | | |
| | | | 12 | Marandi, A | A | A | P | | | |
| | | | 13 | Low, S | A | A | P | | | |
| | | | 14 | Perona, P | A | A | P | | | |
| | | | 15 | Chandrasekaran, V | A | A | P | | | |
| | | | 16 | Mirhosseini, M | A | A | P | | | |
| | | | EE 099 | + | Advanced Work in Electrical Engineering | 01 | Scherer, A | A | A | P |
| | | | | | | 02 | Perona, P | A | A | P |
| 03 | George, G | A | | | | A | P | | | |
| 04 | Atwater, H | A | | | | A | P | | | |
| 05 | Murray, R | A | | | | A | P | | | |
| 06 | Emami, A | A | | | | A | P | | | |
| 07 | Gharib, M | A | | | | A | P | | | |
| 08 | Low, S | A | | | | A | P | | | |
| 09 | Yang, C | A | | | | A | P | | | |
| 10 | Hajimiri, S | A | | | | A | P | | | |
| 11 | Burdick, J | A | | | | A | P | | | |
| 12 | Tai, Y | A | | | | A | P | | | |
| 13 | Yariv, A | A | | | | A | P | | | |
| 14 | Bruck, J | A | | | | A | P | | | |
| 15 | Marandi, A | A | | | | A | P | | | |
| 16 | Hassibi, B | A | | | | A | P | | | |
| 17 | Wang, L | A | | | | A | P | | | |
| 18 | Gao, W | A | | | | A | P | | | |
| 19 | Kalantar Ohanian, R | A | | | | A | P | | | |

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|-------------------------------|-------|---|---------|--------------------------|--------------------|-----------|--------------|
| ELECTRICAL ENGINEERING | | | | | | | |
| EE 099 | + | Advanced Work in Electrical Engineering | 20 | Kostina, V | A | A | P |
| | | | 21 | Marandi, A | A | A | P |
| EE 102 | 1-0-0 | Electrical Engineering Entrepreneurial and Research Seminar | 01 | Yang, C | W 12:00 - 12:55 | B270 MRE | P |
| ACM/EE 106B | 3-0-9 | Introductory Methods of Computational Mathematics | 01 | Hou, Y | TR 13:00 - 14:25 | 104 ANB | G |
| APh/EE 109 | 0-6-3 | Introduction to the Micro/Nanofabrication Lab | 01 | Ghaffari, A | OM,W 16:00 - 16:55 | 104 WAT | |
| EE 112 | 3-0-6 | Introduction to Signal Processing from Data | 01 | Vaidyanathan, P | TR 13:00 - 14:25 | B270 MRE | |
| EE/MedE 114A | 4-0-8 | Analog Circuit Design | 01 | Hajimiri, S | TR 09:00 - 10:55 | B270 MRE | |
| Ph/APh/EE/BE 118A | 3-0-6 | Physics of Measurement | 01 | Roukes, M | TR 14:30 - 15:55 | 387 LINDE | |
| EE/CS 119B | 3-3-3 | Advanced Digital Systems Design | 01 | George, G | MF 13:00 - 14:25 | B270 MRE | |
| EE/MedE 124 | 3-0-6 | Mixed-mode Integrated Circuits | 01 | Emami, A | MW 10:30 - 11:55 | B270 MRE | |
| ME/CS/EE 133B | 3-2-4 | Robotics | 01 | Niemeyer, G | MWF 15:00 - 15:55 | 135 GTL | |
| ME/CS/EE 134 | 1-7-1 | Robotic Systems | 01 | Niemeyer, G / Peticco, M | MWF 13:00 - 13:55 | 135 GTL | |
| CMS/CS/Ec/EE 144 | 3-4-5 | Networks: Structure Economics | 01 | Mazumdar, E | MWF 14:30 - 15:55 | 104 ANB | |
| CS/EE 146 | 3-3-3 | Control and Optimization of Networks | 01 | Low, S | TR 10:30 - 11:55 | 314 ANB | |
| EE 150 | 3-0-6 | Topics in Electrical Engineering: Introduction to Deep Learning | 01 | Polito, M | TR 10:30 - 11:55 | 105 ANB | |

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|-------------------------------|-------|---|----------------------|--|------------------------------------|-------------------------|------------------|
| ELECTRICAL ENGINEERING | | | | | | | |
| EE 153 | 3-2-7 | Microwave Circuits and Antennas | 01 | Antsos, D | T 15:00 - 16:55 R 15:00 - 15:55 | B280 MRE B280 MRE | |
| CMS/CS/CNS/EE/IDS | 3-3-6 | Machine Learning & Data Mining | 01 | Yue, Y | TR 14:30 - 15:55 | 134 (Auditorium) BCK | |
| EE/APh 158 | 3-0-6 | Quantum Electrical Circuits | 01 | Mirhosseini, M | MW 10:30 - 11:55 | B280 MRE | |
| EE/CS/IDS 160 | 3-0-6 | Fundamentals of Information Transmission and Storage | 01 | Kostina, V | TR 10:30 - 11:55 | B280 MRE | |
| EE 164 | 3-0-6 | Stochastic and Adaptive Signal Processing | 01 | Hassibi, B | TR 09:00 - 10:25 | B280 MRE | |
| CS/CNS/EE/IDS 165 | 3-3-6 | Foundations of Machine Learning and Statistical Inference | 01 | Anandkumar, A | TR 13:00 - 14:25 | 314 ANB | |
| MedE/EE/BE 168A | 4-0-5 | Biomedical Optics: Principles and Imaging | 01 | Wang, L | TR 14:30 - 16:15 | A | G |
| ESE/ME/EST/Ec/ChE/ | 3-0-0 | Climate Change Impacts, Mitigation and Adaptation <i>maximum enrollment: 25 students</i> | 01 | Wennberg, P / Druckenmiller, H / Fromer, N | W 11:00 - 12:55 | 210 RSC | |
| EE/BE/MedE 185 | 3-0-6 | Micro/Nano Technology for Semiconductor and Medical Device | 01 | Tai, Y | MW 10:30 - 11:55 | 142 KCK | |
| EE/MedE 187 | 3-0-6 | MEMS/NEMS Technologies for Biomedical Devices | 01 | Tai, Y | MW 14:30 - 15:55 | B270 MRE | |
| APh/EE 190A | 3-0-6 | Quantum Electronics | 01 | Vahala, K | TR 13:00 - 14:25 | 142 KCK | |
| ME/CDS/EE 234A | 3-3-3 | Advanced Robotics: Planning | 01 | Burdick, J | TR 13:00 - 14:25 | 115 GTL | G |
| EE 291 | + | Advanced Work in Electrical Engineering | 01 02 03 04 | Abu-Mostafa, Y Kostina, V Bruck, J Burdick, J | A A A A | A A A A | P P P P |

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|-------------------------------|-------|---|---------|-------------------|-----------|----------|--------------|
| ELECTRICAL ENGINEERING | | | | | | | |
| EE 291 | + | Advanced Work in Electrical Engineering | 05 | Tissot, F | A | A | P |
| | | | 06 | Doyle, J | A | A | P |
| | | | 07 | Effros, M | A | A | P |
| | | | 08 | Vahala, K | A | A | P |
| | | | 09 | George, G | A | A | P |
| | | | 10 | Yeh, N | A | A | P |
| | | | 11 | Hajimiri, S | A | A | P |
| | | | 12 | Hassibi, B | A | A | P |
| | | | 13 | Zmuidzinas, J | A | A | P |
| | | | 14 | Low, S | A | A | P |
| | | | 15 | Anderson, D | A | A | P |
| | | | 16 | Atwater, H | A | A | P |
| | | | 17 | Murray, R | A | A | P |
| | | | 18 | Perona, P | A | A | P |
| | | | 19 | Gharib, M | A | A | P |
| | | | 20 | Hoffmann, M | A | A | P |
| | | | 21 | Mirhosseini, M | A | A | P |
| | | | 22 | Phillips, R | A | A | P |
| | | | 23 | Cvitanić, J | A | A | P |
| | | | 25 | Spiropulu, M | A | A | P |
| | | | 26 | Scherer, A | A | A | P |
| | | | 27 | Vidick, T | A | A | P |
| | | | 28 | Tai, Y | A | A | P |
| | | | 29 | Vaidyanathan, P | A | A | P |
| | | | 30 | Yariv, A | A | A | P |
| | | | 31 | Chandrasekaran, V | A | A | P |
| | | | 32 | Roukes, M | A | A | P |
| | | | 33 | Avouac, J | A | A | P |
| | | | 34 | Weinreb, S | A | A | P |
| | | | 35 | Hallinan, G | A | A | P |
| | | | 36 | Martin, A | A | A | P |
| | | | 37 | Yang, C | A | A | P |
| | | | 38 | Emami, A | A | A | P |

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|--------------------------------------|-------|--|---------|--|--------------------|----------|--------------|
| ELECTRICAL ENGINEERING | | | | | | | |
| EE 291 | + | Advanced Work in Electrical Engineering | 39 | Painter, O | A | A | P |
| | | | 40 | Faraon, A | A | A | P |
| | | | 42 | Minnich, A | A | A | P |
| | | | 44 | Yue, Y | A | A | P |
| | | | 46 | Shapiro, M | A | A | P |
| | | | 47 | Wang, L | A | A | P |
| | | | 49 | Marandi, A | A | A | P |
| | | | 50 | Greer, J | A | A | P |
| | | | 51 | Greer, J | A | A | P |
| | | | 52 | Hsieh, D | A | A | P |
| ENERGY SCIENCE AND TECHNOLOGY | | | | | | | |
| ESE/ME/EST/EC/ChE/ | 3-0-0 | Climate Change Impacts, Mitigation and Adaptation <i>maximum enrollment: 25 students</i> | 01 | Wennberg, P / Druckenmiller, H / Fromer, N | W 11:00 - 12:55 | 210 RSC | |
| ENGINEERING | | | | | | | |
| E 100 | 0-0-0 | Special Topics in Engineering & Applied Science: Design Your Life After Caltech <i>Open to juniors and seniors by application at http://registrar.caltech.edu/E100_sec1</i> | 01 | Resnick, A | F 14:30 - 15:25 | 328 SFL | P |
| E 100 | 0-0-0 | Special Topics in Engineering & Applied Science: Crude Experiments <i>max enrollment: 12 students // units (0.5-0.5-1) // Open to First-Years // Other students must apply at https://forms.gle/io9MXm8McH5EeXSMA</i> | 02 | Phinney, E | OM,M 14:05 - 14:45 | 201 BRG | P |
| E 100 | 0-0-0 | Special Topics in Engineering & Applied Science: The Whale <i>maximum enrollment: 15 students // units (0.5-0.5-1) // Open to First-Years // Other students must apply at https://forms.gle/nSHP2vErKFAXfVdNA</i> | 03 | Phillips, R | OM,M 14:05 - 14:45 | 201 BRG | P |

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|--------------------|-------|--|----------|------------------------|--------------------------------------|----------|--------------|
| ENGINEERING | | | | | | | |
| E/SEC 103 | 3-0-6 | Management of Technology <i>Enrollment by application only // No auditors will be allowed // Apply at https://murray.cds.caltech.edu/E/SEC_103,_Winter_2025</i> | 01 | Murray, R | MW 13:30 - 14:55 | A | |
| E 110 | 2-0-1 | Principles of University Teaching and Learning in STEM <i>maximum enrollment: 20 students // open to upperclass undergrads and graduate students only</i> | 01 | Dabiri, M | W 13:00 - 14:55 | 360 CSS | P |
| ENGLISH | | | | | | | |
| Hum/En 022 | 3-0-6 | Inequality <i>Attendance at the first class meeting is required. // maximum enrollment: 15 students per section</i> | 01 02 | Haugen, K Haugen, K | TR 09:00 - 10:25 TR 14:30 - 15:55 | A A | |
| Hum/En 036 | 3-0-6 | American Literature and Culture <i>Attendance at the first class meeting is required. // maximum enrollment: 15 students</i> | 01 | Weinstein, C | TR 13:00 - 14:25 | A | |
| En 086 | 3-0-6 | Fiction Writing <i>maximum enrollment: 14 students</i> | 01 | Lepucki, E | W 19:00 - 21:55 | A | |
| En 098 | + | Reading in English <i>Instructor permission required prior to registering</i> | 01 | Staff | A | A | P |
| En 099A | 1-0-8 | Senior Tutorial for English Majors <i>Instructor permission required prior to registering</i> | 01 | Staff | A | A | G |
| En 099B | 1-0-8 | Senior Tutorial for English Majors <i>Instructor permission required prior to registering</i> | 01 | Staff | A | A | G |
| En 101 | 3-0-6 | Recalling the Wild <i>maximum enrollment: 20 students</i> | 01 | Holland, J | TR 10:30 - 11:55 | A | G |

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|--|-------|---|---------|--------------------|------------------|----------|--------------|
| ENGLISH | | | | | | | |
| En/VC 116 | 3-0-6 | Picturing the Universe <i>maximum enrollment: 15 students // Course Closed - Please see instructor for waitlist</i> | 01 | Sullivan, A | W 19:00 - 21:55 | A | G |
| En/VC 117 | 3-0-6 | The New York School of Poets <i>maximum enrollment: 15 students</i> | 01 | Schneiderman, J | TR 10:30 - 11:55 | A | G |
| En 131 | 3-0-6 | Poe's Afterlife <i>maximum enrollment: 15 students</i> | 01 | Weinstein, C | TR 14:30 - 15:55 | A | G |
| | | | 02 | Weinstein, C | TR 10:30 - 11:55 | A | G |
| En 180 | 3-0-6 | Special Topics in English <i>maximum enrollment: 15 students per section // Sec 1: Autobiography and the Novel // Sec 2: Cold War American Modernism</i> | 01 | Mundell Perkins, E | TR 14:30 - 15:55 | A | G |
| | | | 02 | Sherazi, M | TR 13:00 - 14:25 | A | G |
| En/H 193 | 3-0-6 | Cervantes, Truth or Dare: Don Quixote in an Age of Empire <i>maximum enrollment: 15 students</i> | 01 | Wey-Gomez, N | TR 13:00 - 14:25 | A | |
| ENGLISH AS A SECOND LANGUAGE | | | | | | | |
| ESL101B | 3-0-0 | Oral Communication and Pronunciation | 01 | Ashleigh, S | MW 17:00 - 18:25 | 104 WAT | P |
| ENVIRONMENTAL SCIENCE & ENGINEERING | | | | | | | |
| ESE090 | + | Undergraduate Laboratory Research in Environmental Science and Engineering | 01 | Leadbetter, J | A | A | P |
| | | | 02 | Flagan, R | A | A | P |
| | | | 03 | Sessions, A | A | A | P |
| | | | 04 | Hoffmann, M | A | A | P |
| | | | 05 | Newman, D | A | A | P |
| | | | 06 | Thompson, A | A | A | P |
| | | | 07 | Bordoni, S | A | A | P |
| | | | 08 | Adkins, J | A | A | P |
| | | | 09 | Frankenberg, C | A | A | P |
| | | | 10 | Yung, Y | A | A | P |
| | | | 11 | Wennberg, P | A | A | P |
| | | | 12 | Karthikeyan, S | A | A | P |

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| ENVIRONMENTAL SCIENCE & ENGINEERING | | | | | | | |
| ESE100 | + | Special Problems in Environmental Engineering Science <i>up to 12 units by arrangement</i> | 01 | Schneider, T | A | A | P |
| | | | 02 | Ingersoll, A | A | A | P |
| | | | 03 | Wennberg, P | A | A | P |
| | | | 04 | Hoffmann, M | A | A | P |
| | | | 05 | Adkins, J | A | A | P |
| | | | 06 | Leadbetter, J | A | A | P |
| | | | 07 | Bordoni, S | A | A | P |
| | | | 08 | Yung, Y | A | A | P |
| | | | 09 | Seinfeld, J | A | A | P |
| | | | 10 | Orphan, V | A | A | P |
| | | | 11 | Thompson, A | A | A | P |
| | | | 12 | Sessions, A | A | A | P |
| ESE103 | 3-0-6 | Earth's Biogeochemical Cycles | 01 | Frankenberg, C | MWF 15:00 - 15:55 | 162 SMD | |
| ESE106 | + | Research in Environmental Science and Engineering | 01 | Adkins, J | A | A | P |
| | | | 02 | Blake, G | A | A | P |
| | | | 03 | Bordoni, S | A | A | P |
| | | | 04 | Eiler, J | A | A | P |
| | | | 05 | Flagan, R | A | A | P |
| | | | 06 | Hoffmann, M | A | A | P |
| | | | 07 | Ingersoll, A | A | A | P |
| | | | 08 | Lamb, M | A | A | P |
| | | | 09 | Leadbetter, J | A | A | P |
| | | | 10 | Newman, D | A | A | P |
| | | | 11 | Okumura, M | A | A | P |
| | | | 12 | Orphan, V | A | A | P |
| | | | 13 | Schneider, T | A | A | P |
| | | | 14 | Seinfeld, J | A | A | P |
| | | | 15 | Sessions, A | A | A | P |
| | | | 16 | Wennberg, P | A | A | P |
| | | | 17 | Yung, Y | A | A | P |
| | | | 18 | Thompson, A | A | A | P |

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| ENVIRONMENTAL SCIENCE & ENGINEERING | | | | | | | |
| ESE106 | + | Research in Environmental Science and Engineering | 19 | Frankenberg, C | A | A | P |
| | | | 20 | Callies, J | A | A | P |
| | | | 21 | Karthikeyan, S | A | A | P |
| ESE110B | 1-0-0 | Seminar in Environmental Science and Engineering | 01 | Karthikeyan, S | W 16:00 - 16:55 | 365 SMD | P |
| ChE/ESE/ME/MS 111 | 3-0-6 | Sustainable Engineering | 01 | Kornfield, J | TR 11:30 - 12:55 | 147 NYS | |
| ESE130 | 3-0-6 | Fundamentals of Atmosphere and Ocean Dynamics | 01 | Callies, J | MWF 11:00 - 11:55 | 135 LLB | |
| ME/CE/Ge/ESE 146 | 3-0-6 | Computational Methods for Flow in Porous Media | 01 | Fu, X | MW 13:00 - 14:25 | 115 GTL | G |
| Ge/ESE 155 | 3-0-6 | Paleoceanography | 01 | Adkins, J | A | A | |
| ESE/Bi 168 | 3-0-6 | Microbial Metabolic Diversity | 01 | Newman, D | MWF 09:00 - 09:55 | 215 NMD | |
| ESE/Ge/Ch 171 | 3-0-6 | Atmospheric Chemistry I | 01 | Wennberg, P | A | A | |
| ESE/Ch 176 | 3-0-6 | Environmental Physical Organic Chemistry | 01 | Diallo, M | TR 14:00 - 15:55 | 135 LLB | |
| Ge/ESE/Bi 178 | 3-2-4 | Microbial Ecology | 01 | Orphan, V | TR 13:00 - 13:55 | 162 SMD | |
| ESE/ME/EST/Ec/ChE/ | 3-0-0 | Climate Change Impacts, Mitigation and Adaptation <i>maximum enrollment: 25 students</i> | 01 | Wennberg, P / Druckenmiller, H / Fromer, N | W 11:00 - 12:55 | 210 RSC | |
| ESE/Ge/Bi/ChE 184 | 3-0-6 | Computational Tools for Decoding Microbial Ecosystems <i>maximum enrollment: TBD</i> | 01 | Karthikeyan, S | TR 10:30 - 11:55 | A | |
| Ge/ESE 298 | + | Mentoring and Outreach | 01 | Newman, D | A | A | P |
| | | | 03 | Fischer, W | A | A | P |

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| ENVIRONMENTAL SCIENCE & ENGINEERING | | | | | | | |
| Ge/ESE 298 | + | Mentoring and Outreach | 04 | Avouac, J / Bucholz, C | A | A | P |
| | | | 05 | Thompson, A | A | A | P |
| ESE300 | + | Thesis Research | 01 | Adkins, J | A | A | P |
| | | | 02 | Sessions, A | A | A | P |
| | | | 03 | Flagan, R | A | A | P |
| | | | 04 | Hoffmann, M | A | A | P |
| | | | 05 | Ingersoll, A | A | A | P |
| | | | 06 | Leadbetter, J | A | A | P |
| | | | 07 | Newman, D | A | A | P |
| | | | 08 | Bordoni, S | A | A | P |
| | | | 09 | Yung, Y | A | A | P |
| | | | 10 | Wennberg, P | A | A | P |
| | | | 11 | Schneider, T | A | A | P |
| | | | 12 | Seinfeld, J | A | A | P |
| | | | 13 | Eiler, J | A | A | P |
| | | | 14 | Orphan, V | A | A | P |
| | | | 15 | Okumura, M | A | A | P |
| | | | 16 | Thompson, A | A | A | P |
| | | | 17 | Fischer, W | A | A | P |
| | | | 18 | Callies, J | A | A | P |
| | | | 19 | Frankenberg, C | A | A | P |
| | | | | | | 20 | Karthikeyan, S |
| FIRST-YEAR SEMINARS | | | | | | | |
| FS 002 | 2-0-4 | First-Year Seminar: The Evolution of Information Systems: From Life to Artificial | 01 | Staff | A | A | P |
| FS/Ph 011B | 2-0-4 | First-Year Seminar: Beyond Physics | 01 | Phillips, R | A | A | P |
| GEOLOGY | | | | | | | |
| Ge 011B | 3-3-3 | Introduction to Earth and Planetary Sciences: Earth and the Biosphere <i>Moved to Spring Term // taught concurrently</i> | 01 | Staff | A | A | |

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| GEOLOGY | | | | | | | |
| Ge/Ay 011C | 3-0-6 | Introduction to Earth and Planetary Sciences: Planetary Sciences | 01 | Brown, M | TR 10:30 - 11:55 | 162 SMD | |
| Ge 011D | 3-0-6 | Introduction to Earth and Planetary Sciences: Geophysics <i>taught concurrently with Ge 102</i> | 01 | Gurnis, M | MWF 09:00 - 09:55 | 162 SMD | |
| Ge 040 | + | Special Problems for Undergraduates | 01 | Kirschvink, J | A | A | P |
| | | | 02 | Orphan, V | A | A | P |
| | | | 03 | Lamb, M | A | A | P |
| | | | 04 | Ingersoll, A | A | A | P |
| | | | 05 | Adkins, J | A | A | P |
| | | | 06 | Rossmann, G | A | A | P |
| | | | 07 | Sessions, A | A | A | P |
| | | | 08 | Stevenson, D | A | A | P |
| | | | 09 | Yung, Y | A | A | P |
| | | | 10 | Jackson, J | A | A | P |
| | | | 11 | Fischer, W | A | A | P |
| | | | 13 | Brown, M | A | A | P |
| | | | 14 | de Kleer, K | A | A | P |
| | | | 15 | Eiler, J | A | A | P |
| | | | 16 | Asimow, P | A | A | P |
| | | | 17 | Tissot, F | A | A | P |
| | | | 18 | Tejada Lara, J | A | A | P |
| Ge 041B | + | Undergraduate Research and Bachelor's Thesis | 01 | Rossmann, G | A | A | P |
| | | | 02 | Kirschvink, J | A | A | P |
| | | | 03 | Grotzinger, J | A | A | P |
| | | | 04 | Orphan, V | A | A | P |
| | | | 05 | Stolper, E | A | A | P |
| | | | 06 | Stock, J | A | A | P |
| | | | 07 | Grotzinger, J | A | A | P |
| | | | 08 | Asimow, P | A | A | P |
| | | | 09 | Brown, M | A | A | P |
| | | | 10 | Fischer, W | A | A | P |

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|-----------------|-------|---|---------|--|---|-------------------------------|--------------|
| GEOLOGY | | | | | | | |
| Ge 041B | + | Undergraduate Research and Bachelor's Thesis | 11 | Eiler, J | A | A | P |
| | | | 12 | Ingersoll, A | A | A | P |
| | | | 13 | Sessions, A | A | A | P |
| | | | 14 | Leadbetter, J | A | A | P |
| | | | 15 | Lamb, M | A | A | P |
| | | | 16 | Adkins, J | A | A | P |
| | | | 17 | Simons, M | A | A | P |
| | | | 18 | Yung, Y | A | A | P |
| | | | 19 | Tejada Lara, J | A | A | P |
| | | | 20 | Newman, D | A | A | P |
| Ge 102 | 3-0-6 | Introduction to Geophysics <i>taught concurrently with Ge 11D</i> | 01 | Gurnis, M | MWF 09:00 - 09:55 | 162 SMD | |
| Ge 103 | 3-0-6 | Introduction to the Solar System | 01 | Brown, M | TR 10:30 - 11:55 | 162 SMD | |
| Ge 104 | 3-0-6 | Introduction to Geobiology <i>Moved to Spring Term // taught concurrently with Ge 11b</i> | 01 | Staff | A | A | |
| Ge 106 | 3-0-6 | Introduction to Structural Geology | 01 | Avouac, J | M 14:30 - 15:55 T 13:00 - 13:55 R 14:00 - 14:25 | 212 NMD 212 NMD 212 NMD | |
| Ge 109 | + | Oral Presentation <i>Section 1: Geophysics</i> | 01 | Jackson, J | T 12:00 - 12:55 | 254 SMD | P |
| Ge 116 | 1-4-4 | Analytical Techniques Laboratory <i>Lab- 4 hours per week, scheduling will vary over the quarter</i> | 01 | Jackson, J / Asimow, P / Ehlmann, B | T 14:00 - 14:55 | 251 ARM | G |
| Ge/Ay 117 | 3-0-6 | Bayesian Statistics and Data Analysis | 01 | Knutson, H | MWF 14:00 - 14:55 | 162 SMD | |
| Ge 121B | 0-9-3 | Advanced Field Geology <i>Field Trip dates: TBA // OM December 16, 2024</i> | 01 | Bucholz, C | OM,M 13:00 - 13:55 | 251 ARM | G |

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| GEOLOGY | | | | | | | |
| Ge 122B | 1-3-2 | Field Geology Seminar | 01 | Stock, J | W 11:00 - 11:55 | 215 NMD | P |
| Ge/Ay 132 | 3-0-6 | Atomic and Molecular Processes in Astronomy and Planetary Sciences | 01 | Blake, G | TR 14:30 - 15:55 | 162 SMD | |
| Ge 136B | 1-0-2 | Regional Field Geology of the Southwestern United States | 01 | Kirschvink, J | OM,M 16:00 - 16:55 | 251 ARM | P |
| Ge/Ay 137 | 3-0-6 | Planetary Physics | 01 | Batygin, K | MWF 13:00 - 13:55 | 176 SMD | |
| Ge 140A | 3-0-6 | Stable Isotope Geochemistry | 01 | Eiler, J | MWF 14:00 - 14:55 | 215 NMD | |
| ME/CE/Ge/ESE 146 | 3-0-6 | Computational Methods for Flow in Porous Media | 01 | Fu, X | MW 13:00 - 14:25 | 115 GTL | G |
| Ge 151 | 3-3-3 | Planetary Surfaces <i>Field trip dates: TBD</i> | 01 | de Kleer, K | TR 10:30 - 11:55 | 215 NMD | |
| Ge/ESE 155 | 3-0-6 | Paleoceanography | 01 | Adkins, J | A | A | |
| Ge/Ay 159 | 3-0-6 | Astrobiology | 01 | Yung, Y | MWF 11:00 - 11:55 | 162 SMD | |
| Ge 162 | 3-0-6 | Seismology | 01 | Zhan, Z | MWF 10:00 - 10:55 | 162 SMD | |
| Ge 165 | 3-0-6 | Geophysical Inverse Problems | 01 | Ross, Z | TR 13:00 - 14:25 | A | |
| ESE/Ge/Ch 171 | 3-0-6 | Atmospheric Chemistry I | 01 | Wennberg, P | A | A | |
| Ge/ESE/Bi 178 | 3-2-4 | Microbial Ecology | 01 | Orphan, V | TR 13:00 - 13:55 | 162 SMD | |
| ESE/Ge/Bi/ChE 184 | 3-0-6 | Computational Tools for Decoding Microbial Ecosystems <i>maximum enrollment: TBD</i> | 01 | Karthikeyan, S | TR 10:30 - 11:55 | A | |

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|-----------------|-------|----------------------------------|---------|---------------|------------------|----------|--------------|
| GEOLOGY | | | | | | | |
| Ge 193 | + | Special Topics in Geophysics | 01 | Staff | A | A | |
| ME/Ge/Ae 266B | 3-0-6 | Fracture and Frictional Faulting | 01 | Lapusta, N | MW 14:30 - 15:55 | 115 GTL | |
| Ge 297 | + | Advanced Study | 01 | Adkins, J | A | A | P |
| | | | 02 | Eiler, J | A | A | P |
| | | | 03 | Clayton, R | A | A | P |
| | | | 04 | Asimow, P | A | A | P |
| | | | 05 | Blake, G | A | A | P |
| | | | 06 | Brown, M | A | A | P |
| | | | 07 | Grotzinger, J | A | A | P |
| | | | 08 | Stock, J | A | A | P |
| | | | 09 | Sessions, A | A | A | P |
| | | | 10 | Avouac, J | A | A | P |
| | | | 11 | Gurnis, M | A | A | P |
| | | | 14 | Ingersoll, A | A | A | P |
| | | | 15 | Jackson, J | A | A | P |
| | | | 16 | Kirschvink, J | A | A | P |
| | | | 17 | Farley, K | A | A | P |
| | | | 18 | Newman, D | A | A | P |
| | | | 20 | Fischer, W | A | A | P |
| | | | 21 | Lamb, M | A | A | P |
| | | | 22 | Rossmann, G | A | A | P |
| | | | 23 | Schneider, T | A | A | P |
| | | | 24 | Bordoni, S | A | A | P |
| | | | 25 | Simons, M | A | A | P |
| | | | 26 | Stevenson, D | A | A | P |
| | | | 27 | Ehlmann, B | A | A | P |
| | | | 28 | Stolper, E | A | A | P |
| | | | 29 | Kulkarni, S | A | A | P |
| | | | 31 | Batygin, K | A | A | P |
| | | | 32 | Wennberg, P | A | A | P |

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| GEOLOGY | | | | | | | |
| Ge 297 | + | Advanced Study | 33 | Wernicke, B | A | A | P |
| | | | 35 | Yung, Y | A | A | P |
| | | | 36 | Lapusta, N | A | A | P |
| | | | 37 | Kulkarni, S | A | A | P |
| | | | 38 | Orphan, V | A | A | P |
| | | | 40 | Knutson, H | A | A | P |
| | | | 41 | Leadbetter, J | A | A | P |
| | | | 42 | Zhan, Z | A | A | P |
| | | | 43 | Bucholz, C | A | A | P |
| | | | 44 | Leadbetter, J | A | A | P |
| | | | 45 | Tissot, F | A | A | P |
| | | | 46 | Ross, Z | A | A | P |
| | | | 47 | de Kleer, K | A | A | P |
| | | | 48 | Tejada Lara, J | A | A | P |
| Ge/ESE 298 | + | Mentoring and Outreach | 01 | Newman, D | A | A | P |
| | | | 03 | Fischer, W | A | A | P |
| | | | 04 | Avouac, J / Bucholz, C | A | A | P |
| | | | 05 | Thompson, A | A | A | P |
| Ge 299 | + | Thesis Research | 01 | Adkins, J | A | A | P |
| | | | 02 | Ehlmann, B | A | A | P |
| | | | 03 | Avouac, J | A | A | P |
| | | | 04 | Asimow, P | A | A | P |
| | | | 05 | Blake, G | A | A | P |
| | | | 06 | Brown, M | A | A | P |
| | | | 07 | Clayton, R | A | A | P |
| | | | 08 | Eiler, J | A | A | P |
| | | | 09 | Farley, K | A | A | P |
| | | | 10 | Grotzinger, J | A | A | P |
| | | | 11 | Heaton, T | A | A | P |
| | | | 13 | Gurnis, M | A | A | P |
| | | | 14 | Kirschvink, J | A | A | P |
| | | | 15 | Fischer, W | A | A | P |
| | | | 16 | Newman, D | A | A | P |

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|-----------------|----------------|---|---------|---------------|------------------|----------|--------------|
| GEOLOGY | | | | | | | |
| Ge 299 | + | Thesis Research | 17 | Orphan, V | A | A | P |
| | | | 18 | Knutson, H | A | A | P |
| | | | 19 | Rossman, G | A | A | P |
| | | | 21 | Lamb, M | A | A | P |
| | | | 22 | Schneider, T | A | A | P |
| | | | 23 | Sessions, A | A | A | P |
| | | | 24 | Bucholz, C | A | A | P |
| | | | 25 | Simons, M | A | A | P |
| | | | 26 | Stevenson, D | A | A | P |
| | | | 27 | Stock, J | A | A | P |
| | | | 28 | Stolper, E | A | A | P |
| | | | 29 | Leadbetter, J | A | A | P |
| | | | 30 | Zhan, Z | A | A | P |
| | | | 31 | Yung, Y | A | A | P |
| | | | 32 | Batygin, K | A | A | P |
| | | | 33 | Wennberg, P | A | A | P |
| | | | 34 | Wernicke, B | A | A | P |
| | | | 36 | Lapusta, N | A | A | P |
| | | | 37 | Kulkarni, S | A | A | P |
| | | | 38 | Jackson, J | A | A | P |
| | | | 39 | Ingersoll, A | A | A | P |
| | | | 41 | Bordoni, S | A | A | P |
| | | | 42 | Ross, Z | A | A | P |
| | | | 43 | Tissot, F | A | A | P |
| | | | 44 | de Kleer, K | A | A | P |
| 45 | Tejada Lara, J | A | A | P | | | |
| HISTORY | | | | | | | |
| Hum/H 001 | 3-0-6 | The Classical and Medieval Worlds <i>Attendance at the first class meeting is required.</i> <i>// maximum enrollment: 15 students</i> | 01 | Brown, W | TR 14:30 - 15:55 | A | |
| Hum/H 002 | 3-0-6 | Freedom Dreams: African American Visions of Liberation Since Emancipation | 01 | Wiggins, D | T 19:00 - 21:55 | 125 BAX | P |

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| HISTORY | | | | | | | |
| Hum/H 002 | 3-0-6 | Freedom Dreams: African American Visions of Liberation Since Emancipation <i>Attendance at the first class meeting is required.</i> <i>// maximum enrollment: 15 students</i> | | | | | |
| Hum/H 008 | 3-0-6 | Civilization, Science, and Archaeology: Before Greece: The Origins of Civilization in Mesopotamia <i>maximum enrollment: 15 students</i> | 01 | Buchwald, J | TR 14:30 - 15:55 | A | |
| Hum/H 013 | 3-0-6 | Brave New Worlds: Race, Human Rights and the Age of Discovery <i>Attendance at the first class meeting is required.</i> <i>// maximum enrollment: 15 students</i> | 01 | Wey-Gomez, N | TR 09:00 - 10:25 | TR DAB | |
| Hum/H/HPS 018 | 3-0-6 | Introduction to the History of Science <i>maximum enrollment: 15 students</i> | 01 | Feingold, M | M 19:00 - 21:55 | A | |
| H 098 | + | Reading in History <i>Instructor permission required prior to registering</i> | 01 | Staff | A | A | P |
| H 099B | 1-0-8 | Research Tutorial <i>Instructor permission required prior to registering</i> | 01 | Staff | A | A | |
| H 111 | 3-0-6 | The Medieval Church <i>maximum enrollment: 25 students</i> | 01 | Brown, W | MWF 13:00 - 13:55 | A | |
| H 149 | 3-0-6 | Age of Fracture: America Since 1974 <i>maximum enrollment: 18 students</i> | 01 | Wiggins, D | R 19:00 - 21:55 | A | G |
| HPS/H 166 | 3-0-6 | Historical Perspectives on the Relations between Science and Religion <i>maximum enrollment: 15 students</i> | 01 | Feingold, M | T 19:00 - 21:55 | A | G |
| HPS/H 168 | 3-0-6 | History of Electromagnetism and Heat Science <i>maximum enrollment: 15 students</i> | 01 | Buchwald, J | TR 10:30 - 11:55 | A | |
| En/H 193 | 3-0-6 | Cervantes, Truth or Dare: Don Quixote in an Age of Empire <i>maximum enrollment: 15 students</i> | 01 | Wey-Gomez, N | TR 13:00 - 14:25 | A | |

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| Course Offering | Units | Offering Title | Section | Instructor | Days/Time | Location | Grade Scheme |
|--|--------|---|----------|------------------------------|--------------------------------------|----------|--------------|
| HISTORY AND PHILOSOPHY OF SCIENCE | | | | | | | |
| Hum/H/HPS 018 | 3-0-6 | Introduction to the History of Science <i>maximum enrollment: 15 students</i> | 01 | Feingold, M | M 19:00 - 21:55 | A | |
| HPS098 | + | Reading in History and Philosophy of Science | 01 | Lewis, D | A | A | P |
| HPS102B | 2-0-10 | Senior Research Seminar <i>Instructor permission required prior to registering</i> | 01 | Staff | A | A | P |
| HPS/PI/CS 110 | 3-0-6 | Causation and Explanation <i>maximum enrollment: 15 students per section</i> | 01 02 | Eberhardt, F Eberhardt, F | TR 13:00 - 14:25 TR 14:30 - 15:55 | A A | G G |
| HPS/PI 123 | 3-0-6 | Introduction to the Philosophy of Physics <i>maximum enrollment: 15 students</i> | 01 | Sebens, C | TR 14:30 - 15:55 | A | |
| HPS/PI 125 | 3-0-6 | Philosophical Issues in Quantum Physics <i>maximum enrollment: 20 students</i> | 01 | Sebens, C | TR 13:00 - 14:25 | A | |
| HPS/H 166 | 3-0-6 | Historical Perspectives on the Relations between Science and Religion <i>maximum enrollment: 15 students</i> | 01 | Feingold, M | T 19:00 - 21:55 | A | G |
| HPS/H 168 | 3-0-6 | History of Electromagnetism and Heat Science <i>maximum enrollment: 15 students</i> | 01 | Buchwald, J | TR 10:30 - 11:55 | A | |
| PI/HPS 183 | 3-0-6 | Bioethics <i>maximum enrollment: 15 students</i> | 01 | Helou, A | TR 10:30 - 11:55 | A | |
| HUMANITIES | | | | | | | |
| Hum/H 001 | 3-0-6 | The Classical and Medieval Worlds <i>Attendance at the first class meeting is required.</i> <i>// maximum enrollment: 15 students</i> | 01 | Brown, W | TR 14:30 - 15:55 | A | |
| Hum/H 002 | 3-0-6 | Freedom Dreams: African American Visions of Liberation Since Emancipation <i>Attendance at the first class meeting is required.</i> <i>// maximum enrollment: 15 students</i> | 01 | Wiggins, D | T 19:00 - 21:55 | 125 BAX | P |
| Hum/H 008 | 3-0-6 | Civilization, Science, and Archaeology: Before Greece: The Origins of Civilization in | 01 | Buchwald, J | TR 14:30 - 15:55 | A | |

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| Course Offering | Units | Offering Title | Section | Instructor | Days/Time | Location | Grade Scheme |
|--------------------------------------|-------|---|----------|------------------------------|--------------------------------------|----------|--------------|
| HUMANITIES | | | | | | | |
| Hum/H 008 | 3-0-6 | Civilization, Science, and Archaeology: Before Greece: The Origins of Civilization in Mesopotamia <i>maximum enrollment: 15 students</i> | | | | | |
| Hum/H 013 | 3-0-6 | Brave New Worlds: Race, Human Rights and the Age of Discovery <i>Attendance at the first class meeting is required.</i> <i>// maximum enrollment: 15 students</i> | 01 | Wey-Gomez, N | TR 09:00 - 10:25 | TR DAB | |
| Hum/H/HPS 018 | 3-0-6 | Introduction to the History of Science <i>maximum enrollment: 15 students</i> | 01 | Feingold, M | M 19:00 - 21:55 | A | |
| Hum/En 022 | 3-0-6 | Inequality <i>Attendance at the first class meeting is required.</i> <i>// maximum enrollment: 15 students per section</i> | 01 02 | Haugen, K Haugen, K | TR 09:00 - 10:25 TR 14:30 - 15:55 | A A | |
| Hum/En 036 | 3-0-6 | American Literature and Culture <i>Attendance at the first class meeting is required.</i> <i>// maximum enrollment: 15 students</i> | 01 | Weinstein, C | TR 13:00 - 14:25 | A | |
| Hum/Pl 041 | 3-0-6 | Knowledge and Reality <i>Attendance at the first class meeting is required.</i> <i>// maximum enrollment: 15 students per section</i> | 01 02 | Hitchcock, C Hitchcock, C | TR 09:00 - 10:25 TR 13:00 - 14:25 | A A | |
| Hum059 | 3-0-6 | Special Topics in Humanities: Introduction to English Renaissance Poetry <i>maximum enrollment: 15 students</i> | 01 | Li, P | T 19:00 - 21:55 | A | |
| Hum115B | 3-0-6 | Hispanic Cultures in Film and Literature <i>maximum enrollment: 13 students // taught concurrently with L 115B</i> | 01 | Garcia, D | M 19:00 - 19:55 | A | |
| Hum116 | 3-0-6 | Topics in French Culture | 01 | Orcel, C | OM,M 15:00 - 15:55 | A | |
| Hum169 | 3-0-6 | Chinese Cinema <i>maximum enrollment: 7 students // taught concurrently with L 169</i> | 01 | Wang, P | R 19:00 - 21:55 | A | |
| INFORMATION AND DATA SCIENCES | | | | | | | |

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| INFORMATION AND DATA SCIENCES | | | | | | | |
| ACM/IDS 101B | 4-4-4 | Methods of Applied Mathematics | 01 | Bruno, O | MW 10:00 - 11:55 | 213 ANB | |
| CS/IDS 121 | 3-0-6 | Relational Databases | 01 | Hovik, M | MWF 10:00 - 10:55 | 105 ANB | G |
| Ma/ACM/IDS 140B | 3-0-6 | Probability | 01 | Staff | A | 187 LINDE | |
| ACM/IDS 154 | 3-0-6 | Inverse Problems and Data Assimilation | 01 | Carlson, E | TR 10:30 - 11:55 | 213 ANB | |
| CMS/CS/CNS/EE/IDS | 3-3-6 | Machine Learning & Data Mining | 01 | Yue, Y | TR 14:30 - 15:55 | 134 (Auditorium) BCK | |
| EE/CS/IDS 160 | 3-0-6 | Fundamentals of Information Transmission and Storage | 01 | Kostina, V | TR 10:30 - 11:55 | B280 MRE | |
| CS/IDS 162 | 3-0-6 | Data, Algorithms and Society <i>taught concurrently with CS/IDS 162 // maximum enrollment: 15 students between VC 162 and CS/IDS 162 // instructor permission required to add // application required https://forms.gle/HxCECWgsUaujvT5d8</i> | 01 | Ralph, C / Mushkin, H | TR 14:30 - 15:55 | 104 ANB | G |
| CS/CNS/EE/IDS 165 | 3-3-6 | Foundations of Machine Learning and Statistical Inference | 01 | Anandkumar, A | TR 13:00 - 14:25 | 314 ANB | |
| CS/IDS 172 | 3-2-4 | Distributed Computing | 01 | Chandy, K | TR 13:00 - 14:25 | 121 ANB | P |
| IDS197 | + | Undergraduate Reading in the Information and Data Sciences | 01 | Staff | A | A | P |
| IDS198 | + | Undergraduate Projects in Information and Data Sciences | 01 | Wierman, A | A | A | P |
| | | | 02 | Zuev, K | A | A | P |
| | | | 03 | Murray, R | A | A | P |
| | | | 05 | Chandrasekaran, V | A | A | P |
| | | | 06 | Anandkumar, A | A | A | P |

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| INFORMATION AND DATA SCIENCES | | | | | | | |
| IDS199 | + | Undergraduate Thesis in the Information and Data Sciences | 01 | Perona, P | A | A | P |
| ACM/IDS 216 | 3-0-6 | Markov Chains, Discrete Stochastic Processes and Applications | 01 | Owhadi, H | TR 09:00 - 10:25 | 104 ANB | G |
| LANGUAGES | | | | | | | |
| L 102B | 3-0-6 | Elementary French <i>maximum enrollment: 15 students</i> | 01 | Orcel, C | OM,M 14:00 - 14:55 | A | |
| L 103B | 3-0-6 | Intermediate French <i>maximum enrollment: 15 students</i> | 01 | Cribben Merrill, T | OM,M 14:00 - 14:55 | A | |
| L 106B | 4-0-5 | Elementary Japanese <i>maximum enrollment: 20 students per section // Prerequisite: L106a or equivalent</i> | 01 02 | Fujio, M Fujio, M | MTWR 15:00 - 15:55 MTWR 16:00 - 16:55 | A A | |
| L 107B | 3-0-6 | Intermediate Japanese <i>maximum enrollment: 15 students</i> | 01 | Toner, R | MW 16:00 - 17:25 | 128 BAX | |
| L 108B | 3-0-6 | Advanced Japanese <i>maximum enrollment: 15 students</i> | 01 | Toner, R | TR 16:00 - 17:25 | 128 BAX | |
| L 110B | 3-0-6 | Elementary Spanish <i>Sec 1: max 20 students // Sec 2: max 15 students</i> | 01 02 | Arjona, G Garcia, D | OM,T 19:00 - 19:55 MWR 12:00 - 12:55 | A A | |
| L 112B | 3-0-6 | Intermediate Spanish <i>maximum enrollment: 20 students</i> | 01 | Arjona, G | OM,T 17:00 - 17:55 | A | |
| L 115B | 3-0-6 | Hispanic Cultures in Film and Literature <i>maximum enrollment: 7 students // taught concurrently with Hum115B</i> | 01 | Garcia, D | M 19:00 - 19:55 | A | |
| L 130B | 3-0-6 | Elementary German | 01 | Aebi, A | MTR 13:00 - 13:55 | A | |
| L 132B | 3-0-6 | Intermediate German | 01 | Aebi, A | MWR 12:00 - 12:55 | A | |

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| LANGUAGES | | | | | | | |
| L 169 | 3-0-6 | Chinese Cinema <i>maximum enrollment: 8 students // taught concurrently with Hum169</i> | 01 | Wang, P | R 19:00 - 21:55 | A | |
| L 170B | 3-0-6 | Introduction to Chinese <i>maximum enrollment: 20 students</i> | 01 | Wang, P | MWR 12:00 - 12:55 | A | |
| L 171B | 3-0-6 | Accelerated Chinese for Heritage Learners <i>maximum enrollment: 20 students</i> | 01 | Zhu, J | MW 10:30 - 11:55 | A | |
| L 172B | 3-0-6 | Intermediate Chinese <i>maximum enrollment: 20 students</i> | 01 | Zhu, J | MW 09:00 - 10:25 | A | |
| MATERIALS SCIENCE | | | | | | | |
| MS 078B | + | Senior Thesis | 01 | Johnson, W | A | A | P |
| | | | 02 | Falson, J | A | A | P |
| | | | 03 | Greer, J | A | A | P |
| | | | 04 | Atwater, H | A | A | P |
| | | | 05 | Goddard, W | A | A | P |
| | | | 06 | Gharib, M | A | A | P |
| | | | 07 | Minnich, A | A | A | P |
| | | | 08 | Ravichandran, G | A | A | P |
| | | | 09 | Fultz, B | A | A | P |
| | | | 10 | Rossmann, G | A | A | P |
| | | | 11 | Faber, K | A | A | P |
| | | | 12 | Daraio, C | A | A | P |
| | | | 13 | See, K | A | A | P |
| | | | 14 | Gao, W | A | A | P |
| | | | 15 | Lewis, N | A | A | P |
| MS 078C | + | Senior Thesis | 01 | Ravichandran, G | A | A | P |
| MS 100 | + | Advanced Work in Materials Science | 01 | Faber, K | A | A | P |
| | | | 02 | Fultz, B | A | A | P |
| | | | 03 | Falson, J | A | A | P |
| | | | 04 | Davis, M | A | A | P |

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| Course Offering | Units | Offering Title | Section | Instructor | Days/Time | Location | Grade Scheme |
|--------------------------|-------|---|---------|--------------|------------------|----------|--------------|
| MATERIALS SCIENCE | | | | | | | |
| MS 100 | + | Advanced Work in Materials Science | 05 | Kornfield, J | A | A | P |
| | | | 07 | Johnson, W | A | A | P |
| | | | 08 | Minnich, A | A | A | P |
| | | | 09 | Greer, J | A | A | P |
| | | | 10 | Atwater, H | A | A | P |
| | | | 11 | Rossman, G | A | A | P |
| | | | 12 | Scherer, A | A | A | P |
| APh/MS/ME 105B | 3-0-6 | States of Matter <i>makeup sessions held Fridays 1:00pm-2:30pm in Watson 104</i> | 01 | Troian, S | MW 13:00 - 14:25 | 104 WAT | |
| MS 110B | 1-0-0 | Materials Research Lectures | 01 | Falson, J | W 16:00 - 16:55 | 147 NYS | P |
| ChE/ESE/ME/MS 111 | 3-0-6 | Sustainable Engineering | 01 | Kornfield, J | TR 11:30 - 12:55 | 147 NYS | |
| MS/ME/MedE 116 | 3-0-6 | Mechanical Behavior of Materials | 01 | Greer, J | TR 14:30 - 15:55 | 104 WAT | |
| MS 132 | 3-0-6 | Diffraction and Structure | 01 | Fultz, B | TR 13:00 - 14:25 | 104 WAT | |
| MS/APh 162 | 3-0-6 | Electronic Structure of Materials | 01 | Falson, J | TR 10:30 - 11:55 | 104 WAT | |
| MS 200 | + | Advanced Work in Materials Science | 01 | Ortiz, M | A | A | P |
| | | | 02 | Kornfield, J | A | A | P |
| | | | 03 | Atwater, H | A | A | P |
| | | | 04 | Minnich, A | A | A | P |
| | | | 05 | Fultz, B | A | A | P |
| | | | 06 | Goddard, W | A | A | P |
| | | | 07 | Gao, W | A | A | P |
| | | | 08 | Johnson, W | A | A | P |
| | | | 09 | Blake, G | A | A | P |
| | | | 10 | Greer, J | A | A | P |
| | | | 11 | Cushing, S | A | A | P |

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| Course Offering | Units | Offering Title | Section | Instructor | Days/Time | Location | Grade Scheme |
|--------------------------|-----------------|------------------------------------|---------|-----------------|-----------------|----------|--------------|
| MATERIALS SCIENCE | | | | | | | |
| MS 200 | + | Advanced Work in Materials Science | 12 | Daraio, C | A | A | P |
| | | | 13 | Lewis, N | A | A | P |
| | | | 14 | Bhattacharya, K | A | A | P |
| | | | 15 | Faber, K | A | A | P |
| | | | 16 | Faraon, A | A | A | P |
| | | | 17 | Bernardi, M | A | A | P |
| | | | 18 | Lapusta, N | A | A | P |
| | | | 19 | Yeh, N | A | A | P |
| | | | 20 | Ahn, C | A | A | P |
| | | | 21 | See, K | A | A | P |
| | | | 22 | Falson, J | A | A | P |
| | | | 23 | Manthiram, K | A | A | P |
| | | | MS 300 | + | Thesis Research | 01 | Atwater, H |
| 02 | Ortiz, M | A | | | | A | P |
| 03 | Rosakis, A | A | | | | A | P |
| 04 | Fultz, B | A | | | | A | P |
| 05 | Goddard, W | A | | | | A | P |
| 06 | See, K | A | | | | A | P |
| 07 | Johnson, W | A | | | | A | P |
| 08 | Cushing, S | A | | | | A | P |
| 09 | Greer, J | A | | | | A | P |
| 10 | Lapusta, N | A | | | | A | P |
| 11 | Cross, M | A | | | | A | P |
| 13 | Lewis, N | A | | | | A | P |
| 14 | Bhattacharya, K | A | | | | A | P |
| 15 | Faber, K | A | | | | A | P |
| 16 | Minnich, A | A | A | P | | | |
| 17 | Bernardi, M | A | A | P | | | |
| 18 | Falson, J | A | A | P | | | |
| 19 | Cushing, S | A | A | P | | | |
| 20 | Manthiram, K | A | A | P | | | |
| 21 | Yeh, N | A | A | P | | | |
| 22 | Gao, W | A | A | P | | | |

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| Course Offering | Units | Offering Title | Section | Instructor | Days/Time | Location | Grade Scheme |
|--------------------|-------|--|---------|------------------------------------|--------------------------------------|---------------------------------|--------------|
| MATHEMATICS | | | | | | | |
| Ma 001B | 4-0-5 | Calculus of One and Several Variables and Linear Algebra <i>Sections 1-5 Practical Track -- Sections 6-10 Analytical Track // maximum enrollment: 45 students per section</i> | 01 | Graber, T | MWF 10:00 - 10:55 R 09:00 - 09:55 | 310 LINDE 107 DWN | P |
| | | | 02 | Graber, T | MWF 10:00 - 10:55 R 10:00 - 10:55 | 310 LINDE 387 LINDE | P |
| | | | 03 | Graber, T | MWF 10:00 - 10:55 R 13:00 - 13:55 | 310 LINDE 255 LINDE | P |
| | | | 04 | Graber, T | MWF 10:00 - 10:55 R 14:00 - 14:55 | 310 LINDE 102 STL | P |
| | | | 05 | Graber, T | MWF 10:00 - 10:55 R 10:00 - 10:55 | 310 LINDE 103 DWN | P |
| | | | 06 | Mantovan, E | MWF 10:00 - 10:55 R 13:00 - 13:55 | 125 KRK 310 LINDE | P |
| | | | 07 | Mantovan, E | MWF 10:00 - 10:55 R 14:00 - 14:55 | 125 KRK Hameetman Aud CHL | P |
| | | | 08 | Mantovan, E | MWF 10:00 - 10:55 R 10:00 - 10:55 | 125 KRK 310 LINDE | P |
| | | | 09 | Mantovan, E | MWF 10:00 - 10:55 R 16:00 - 16:55 | 125 KRK 255 LINDE | P |
| | | | 10 | Mantovan, E | MWF 10:00 - 10:55 R 10:00 - 10:55 | 125 KRK Hameetman Aud CHL | P |
| Ma 001D | 2-0-1 | Series | 01 | Gherman, M | TR 09:00 - 09:55 | 310 LINDE | |
| Ma 003 | 4-0-5 | Introduction to Probability and Statistics <i>taught concurrently with Ma 103 // maximum enrollment: 50 students per section</i> | 01 | Hallgrimsdottir, I / Pachter, L | MWF 10:00 - 10:55 R 09:00 - 09:55 | Lecture Hall BAX 102 STL | G |
| | | | 02 | Hallgrimsdottir, I / Pachter, L | MWF 10:00 - 10:55 R 10:30 - 11:25 | Lecture Hall BAX 102 STL | G |
| | | | 03 | Hallgrimsdottir, I / Pachter, L | MWF 10:00 - 10:55 R 13:00 - 13:55 | Lecture Hall BAX 107 DWN | G |
| | | | 04 | Hallgrimsdottir, I / Pachter, L | MWF 10:00 - 10:55 R 14:30 - 15:25 | Lecture Hall BAX 142 KCK | G |
| | | | 05 | Hallgrimsdottir, I / Pachter, L | MWF 10:00 - 10:55 | Lecture Hall BAX | G |

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| Course Offering | Units | Offering Title | Section | Instructor | Days/Time | Location | Grade Scheme |
|--------------------|---------------------|---|---------|------------------------------------|--------------------------------------|-------------------------------|--------------|
| MATHEMATICS | | | | | | | |
| Ma 003 | 4-0-5 | Introduction to Probability and Statistics <i>taught concurrently with Ma 103 // maximum enrollment: 50 students per section</i> | 05 | Hallgrimsdottir, I / Pachter, L | R 16:00 - 16:55 | 103 DWN | G |
| | | | 06 | Hallgrimsdottir, I / Pachter, L | MWF 10:00 - 10:55 R 10:30 - 11:25 | Lecture Hall BAX 187 LINDE | G |
| | | | 07 | Hallgrimsdottir, I / Pachter, L | MWF 10:00 - 10:55 R 19:00 - 19:55 | Lecture Hall BAX 310 LINDE | G |
| | | | 08 | Hallgrimsdottir, I / Pachter, L | MWF 10:00 - 10:55 R 14:30 - 15:25 | Lecture Hall BAX 103 DWN | G |
| Ma 005B | 3-0-6 | Introduction to Abstract Algebra <i>taught concurrently with Ma 105b</i> | 01 | Tang, Y | MWF 09:00 - 09:55 | 387 LINDE | |
| Ma/CS 006B | 3-0-6 | Introduction to Discrete Mathematics | 01 | Babecki, C | MWF 13:00 - 13:55 | 210 RSC | |
| Ma 092B | + | Senior Thesis | 01 | Mantovan, E | A | A | P |
| | | | 02 | Marcolli, M | A | A | P |
| | | | 04 | Zhu, X | A | A | P |
| | | | 05 | Katz, N | A | A | P |
| | | | 06 | Yu, T | A | A | P |
| | | | 07 | Song, A | A | A | P |
| | | | 08 | Tamuz, O | A | A | P |
| | | | 09 | Aluffi, P | A | A | P |
| | | | 10 | Schuelke, B | A | A | P |
| | | | Ma 097 | + | Research in Mathematics | 01 | Dimitrov, V |
| 02 | Mantovan, E | A | | | | A | P |
| 03 | Szumowicz, A | A | | | | A | P |
| 04 | Conlon, D | A | | | | A | P |
| 05 | Tamuz, O | A | | | | A | P |
| 06 | Vigneaux Ariztia, J | A | | | | A | P |
| 07 | Yu, T | A | | | | A | P |
| 08 | Ervin, G | A | | | | A | P |
| 09 | Flach, M | A | | | | A | P |
| 10 | Schroeder, P | A | | | | A | P |
| 11 | Gherman, M | A | | | | A | P |

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|--------------------|-------|--|---------|------------------------------------|--------------------------------------|-----------------------------|--------------|
| MATHEMATICS | | | | | | | |
| Ma 097 | + | Research in Mathematics | 12 | Marcolli, M | A | A | P |
| Ma 098 | + | Independent Reading | 01 | Katz, N | A | A | P |
| | | | 02 | Ervin, G | A | A | P |
| | | | 03 | Flach, M | A | A | P |
| | | | 04 | Yu, T | A | A | P |
| | | | 05 | Ni, Y | A | A | P |
| | | | 06 | Gherman, M | A | A | P |
| | | | 07 | Dimitrov, V | A | A | P |
| | | | 08 | Aluffi, P | A | A | P |
| | | | 09 | Graber, T | A | A | P |
| | | | 10 | Marcolli, M | A | A | P |
| Ma 103 | 4-0-5 | Introduction to Probability and Statistics <i>taught concurrently with Ma 3</i> | 01 | Hallgrimsdottir, I / Pachter, L | MWF 10:00 - 10:55 R 13:00 - 13:55 | Lecture Hall BAX 107 DWN | |
| Ma 105B | 3-0-6 | Introduction to Abstract Algebra <i>taught concurrently with Ma 5b</i> | 01 | Tang, Y | MWF 09:00 - 09:55 | 387 LINDE | |
| Ma/CS 106B | 3-0-6 | Introduction to Discrete Mathematics | 01 | Babecki, C | MWF 13:00 - 13:55 | 387 LINDE | |
| Ma 108B | 3-0-6 | Classical Analysis | 01 | Looi, S | MWF 11:00 - 11:55 | 310 LINDE | |
| Ma 109B | 3-0-6 | Introduction to Geometry and Topology | 01 | Jang, H | MWF 10:00 - 10:55 | 387 LINDE | |
| Ma 110B | 3-0-6 | Analysis | 01 | Hutchcroft, T | MWF 11:00 - 11:55 | 255 LINDE | |
| Ma/CS 117B | 3-0-6 | Computability Theory | 01 | Ervin, G | TR 13:00 - 14:25 | 387 LINDE | |
| Ma 120B | 3-0-6 | Abstract Algebra | 01 | Dimitrov, V | MWF 09:00 - 09:55 | 255 LINDE | |

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|--------------------|-------|--|---------|--------------|-------------------|-----------|--------------|
| MATHEMATICS | | | | | | | |
| Ma 121B | 3-0-6 | Combinatorial Analysis | 01 | Babecki, C | MWF 14:00 - 14:55 | 255 LINDE | |
| Ma 124 | 3-0-6 | Elliptic Curves | 01 | Fu, Y | TR 13:00 - 14:25 | 183 LINDE | P |
| Ma 130B | 3-0-6 | Algebraic Geometry | 01 | Xu, W | MWF 13:00 - 13:55 | 255 LINDE | |
| Ma/ACM/IDS 140B | 3-0-6 | Probability | 01 | Staff | A | 187 LINDE | |
| Ma 148B | 3-0-6 | Topics in Mathematical Physics | 01 | Marcolli, M | TR 09:00 - 10:25 | 187 LINDE | P |
| Ma 151B | 3-0-6 | Geometry and Topology | 01 | Ni, Y | MWF 10:00 - 10:55 | 255 LINDE | |
| Ma 157A | 3-0-6 | Riemannian Geometry | 01 | Jang, H | MWF 13:00 - 13:55 | 289 LINDE | |
| Ma 160A | 3-0-6 | Number Theory | 01 | Flach, M | MWF 14:00 - 14:55 | 289 LINDE | |
| Ma 191B | 3-0-6 | Selected Topics in Mathematics <i>Sec 1: TBA // Sec 2: TBA // Sec 3: Intersection Theory and related topics</i> | 01 | Chen, D | TR 13:00 - 14:25 | 289 LINDE | |
| | | | 02 | Caniato, R | TR 10:30 - 11:55 | 255 LINDE | |
| | | | 03 | Aluffi, P | TR 13:00 - 14:25 | 187 LINDE | |
| Ma 290 | + | Reading | 01 | Conlon, D | A | A | P |
| | | | 02 | Flach, M | A | A | P |
| | | | 03 | Graber, T | A | A | P |
| | | | 04 | Hutcherof, T | A | A | P |
| | | | 05 | Isett, P | A | A | P |
| | | | 06 | Katz, N | A | A | P |
| | | | 07 | Kechris, A | A | A | P |
| | | | 08 | Makarov, N | A | A | P |
| | | | 09 | Mantovan, E | A | A | P |
| | | | 10 | Marcolli, M | A | A | P |
| | | | 12 | Ni, Y | A | A | P |

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|--------------------|-------------|----------------|---------|-----------------|-----------|----------|--------------|
| MATHEMATICS | | | | | | | |
| Ma 290 | + | Reading | 13 | Radziwill, M | A | A | P |
| | | | 14 | Rains, E | A | A | P |
| | | | 15 | Ramakrishnan, D | A | A | P |
| | | | 16 | Yu, T | A | A | P |
| | | | 17 | Zhu, X | A | A | P |
| | | | 18 | Gukov, S | A | A | P |
| | | | 19 | Kapustin, A | A | A | P |
| | | | 20 | Kitaev, A | A | A | P |
| | | | 21 | Oguri, H | A | A | P |
| | | | 22 | Tamuz, O | A | A | P |
| | | | 23 | Cvitanic, J | A | A | P |
| | | | 24 | Owhadi, H | A | A | P |
| Ma 390 | + | Research | 01 | Conlon, D | A | A | P |
| | | | 02 | Flach, M | A | A | P |
| | | | 03 | Hutcherof, T | A | A | P |
| | | | 04 | Graber, T | A | A | P |
| | | | 05 | Isett, P | A | A | P |
| | | | 06 | Katz, N | A | A | P |
| | | | 07 | Kechris, A | A | A | P |
| | | | 08 | Makarov, N | A | A | P |
| | | | 09 | Mantovan, E | A | A | P |
| | | | 10 | Marculli, M | A | A | P |
| | | | 12 | Ni, Y | A | A | P |
| | | | 13 | Radziwill, M | A | A | P |
| | | | 14 | Rains, E | A | A | P |
| | | | 15 | Ramakrishnan, D | A | A | P |
| 16 | Yu, T | A | A | P | | | |
| 17 | Zhu, X | A | A | P | | | |
| 18 | Gukov, S | A | A | P | | | |
| 19 | Kapustin, A | A | A | P | | | |
| 20 | Kitaev, A | A | A | P | | | |
| 21 | Oguri, H | A | A | P | | | |
| 22 | Tamuz, O | A | A | P | | | |

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|-------------------------------|--------|---|---------|-----------------------|-------------------|----------|--------------|
| MATHEMATICS | | | | | | | |
| Ma 390 | + | Research | 23 | Cvitanic, J | A | A | P |
| | | | 24 | Owhadi, H | A | A | P |
| MECHANICAL ENGINEERING | | | | | | | |
| ME 011B | 3-0-6 | Thermal Science | 01 | Minnich, A | MWF 14:00 - 14:55 | 135 GTL | G |
| ME 012B | 3-0-6 | Mechanics | 01 | Andrade, J | TR 13:00 - 14:25 | 135 GTL | |
| ME 013 | 0-4-0 | Mechanical Prototyping <i>Students must submit a questionnaire at https://registrar.caltech.edu/ME13-113WI2025 // Students will be notified of acceptance // Max enrollment: 36 students between ME13 and 113. // Information for the course will be provided on the first day of the term.</i> | 01 | Stovall, P | A | B224 SPL | P |
| ME 050A | 3-6-3 | Experiments and Modeling in Mechanical Engineering | 01 | Mello, M | MWF 11:00 - 11:55 | 135 GTL | G |
| ME 072B | 1-13-1 | Engineering Design Laboratory | 01 | Mello, M / Stovall, P | TR 15:00 - 16:25 | 135 GTL | G |
| ME 090B | 0-9-0 | Senior Thesis: Major Design Experience | 01 | Ames, A | A | A | G |
| ME 091B | + | Senior Thesis | 01 | Ames, A | A | A | P |
| ME 100 | + | Independent Studies in Mechanical Engineering | 01 | Colonius, T | A | A | P |
| | | | 02 | Burdick, J | A | A | P |
| | | | 03 | Scherer, A | A | A | P |
| | | | 04 | Phillips, R | A | A | P |
| | | | 05 | Ames, A | A | A | P |
| | | | 06 | Asimaki, D | A | A | P |
| | | | 07 | Tai, Y | A | A | P |
| | | | 08 | Hunt, M | A | A | P |

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|-------------------------------|------------|--|---------|-----------------|-------------------|----------|--------------|
| MECHANICAL ENGINEERING | | | | | | | |
| ME 100 | + | Independent Studies in Mechanical Engineering | 09 | Minnich, A | A | A | P |
| | | | 10 | Fu, X | A | A | P |
| | | | 11 | Blanquart, G | A | A | P |
| | | | 12 | Perona, P | A | A | P |
| | | | 13 | Doyle, J | A | A | P |
| | | | 14 | Daraio, C | A | A | P |
| | | | 15 | Gharib, M | A | A | P |
| | | | 16 | Murray, R | A | A | P |
| | | | 17 | McKeon, B | A | A | P |
| | | | 18 | Mawet, D | A | A | P |
| | | | 19 | Greer, J | A | A | P |
| 20 | Rosakis, A | A | A | P | | | |
| 21 | Avouac, J | A | A | P | | | |
| Ae/APh/CE/ME 101B | 3-0-6 | Fluid Mechanics | 01 | Pullin, D | MWF 10:00 - 10:55 | 133 GUG | G |
| Ae/AM/CE/ME 102B | 3-0-6 | Mechanics of Structures and Solids | 01 | Ravichandran, G | TR 09:00 - 10:25 | 115 GTL | G |
| APh/MS/ME 105B | 3-0-6 | States of Matter <i>makeup sessions held Fridays 1:00pm-2:30pm in Watson 104</i> | 01 | Troian, S | MW 13:00 - 14:25 | 104 WAT | |
| ME 110 | + | Special Laboratory Work in Mechanical Engineering | 01 | Shepherd, J | A | A | |
| | | | 02 | Scherer, A | A | A | |
| | | | 03 | Ravichandran, G | A | A | |
| | | | 04 | Burdick, J | A | A | |
| | | | 05 | Ames, A | A | A | |
| ChE/ESE/ME/MS 111 | 3-0-6 | Sustainable Engineering | 01 | Kornfield, J | TR 11:30 - 12:55 | 147 NYS | |
| ME 113 | 0-4-0 | Mechanical Prototyping <i>Students must submit a questionnaire at https://registrar.caltech.edu/ME13-113WI2025 // Students will be notified of acceptance // Max enrollment: 36 students between ME13 and 113.</i> | 01 | Stovall, P | A | B224 SPL | P |

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|-------------------------------|-------|---|---------|--|-------------------|----------|--------------|
| MECHANICAL ENGINEERING | | | | | | | |
| MS/ME/MedE 116 | 3-0-6 | Mechanical Behavior of Materials | 01 | Greer, J | TR 14:30 - 15:55 | 104 WAT | |
| ME/CS/EE 133B | 3-2-4 | Robotics | 01 | Niemeyer, G | MWF 15:00 - 15:55 | 135 GTL | |
| ME/CS/EE 134 | 1-7-1 | Robotic Systems | 01 | Niemeyer, G / Peticco, M | MWF 13:00 - 13:55 | 135 GTL | |
| ME/CE/Ge/ESE 146 | 3-0-6 | Computational Methods for Flow in Porous Media | 01 | Fu, X | MW 13:00 - 14:25 | 115 GTL | G |
| AM/CE/ME 150B | 1-0-0 | Graduate Engineering Seminar | 01 | Lapusta, N | R 11:00 - 11:55 | 135 GTL | P |
| ESE/ME/EST/EC/ChE/ | 3-0-0 | Climate Change Impacts, Mitigation and Adaptation <i>maximum enrollment: 25 students</i> | 01 | Wennberg, P / Druckenmiller, H / Fromer, N | W 11:00 - 12:55 | 210 RSC | |
| ME 200 | + | Advanced Work in Mechanical Engineering | 01 | Burdick, J | A | A | P |
| | | | 02 | Murray, R | A | A | P |
| | | | 03 | Ravichandran, G | A | A | P |
| | | | 05 | Brady, J | A | A | P |
| | | | 06 | Bhattacharya, K | A | A | P |
| Ae/ACM/ME 232A | 3-0-6 | Computational Fluid Dynamics | 01 | Bae, H | TR 14:30 - 15:55 | 384 FIR | P |
| ME/CDS/EE 234A | 3-3-3 | Advanced Robotics: Planning | 01 | Burdick, J | TR 13:00 - 14:25 | 115 GTL | G |
| ME/Ge/Ae 266B | 3-0-6 | Fracture and Frictional Faulting | 01 | Lapusta, N | MW 14:30 - 15:55 | 115 GTL | |
| ME 300 | + | Research in Mechanical Engineering | 01 | Blanquart, G | A | A | P |
| | | | 02 | Fultz, B | A | A | P |
| | | | 03 | Burdick, J | A | A | P |
| | | | 04 | Colonius, T | A | A | P |
| | | | 05 | Chung, S | A | A | P |
| | | | 06 | Hunt, M | A | A | P |

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|-------------------------------|---------------|------------------------------------|---------|-----------------|-----------|----------|--------------|
| MECHANICAL ENGINEERING | | | | | | | |
| ME 300 | + | Research in Mechanical Engineering | 07 | Murray, R | A | A | P |
| | | | 08 | Lewis, N | A | A | P |
| | | | 09 | Bhattacharya, K | A | A | P |
| | | | 10 | Shepherd, J | A | A | P |
| | | | 11 | Andrade, J | A | A | P |
| | | | 12 | Bellan, P | A | A | P |
| | | | 13 | Leonard, A | A | A | P |
| | | | 14 | Ortiz, M | A | A | P |
| | | | 15 | Pachter, L | A | A | P |
| | | | 16 | Greer, J | A | A | P |
| | | | 17 | Lapusta, N | A | A | P |
| | | | 18 | Gharib, M | A | A | P |
| | | | 19 | Troian, S | A | A | P |
| | | | 20 | Brady, J | A | A | P |
| | | | 21 | Daraio, C | A | A | P |
| | | | 22 | Dickinson, M | A | A | P |
| | | | 23 | Ravichandran, G | A | A | P |
| | | | 24 | Atwater, H | A | A | P |
| | | | 25 | Adkins, J | A | A | P |
| | | | 27 | McKeon, B | A | A | P |
| | | | 28 | Hoffmann, M | A | A | P |
| | | | 29 | Asimaki, D | A | A | P |
| | | | 30 | Minnich, A | A | A | P |
| 32 | Scherer, A | A | A | P | | | |
| 33 | Ames, A | A | A | P | | | |
| 34 | Pellegrino, S | A | A | P | | | |
| 37 | Schneider, T | A | A | P | | | |
| 38 | Stuart, A | A | A | P | | | |
| 39 | Rosakis, A | A | A | P | | | |
| 40 | Dabiri, J | A | A | P | | | |
| 41 | Fu, X | A | A | P | | | |
| 42 | Heaton, T | A | A | P | | | |
| 43 | Bae, H | A | A | P | | | |

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|-------------------------------|-------|---|---------|-----------------|------------------|----------|--------------|
| MECHANICAL ENGINEERING | | | | | | | |
| ME 300 | + | Research in Mechanical Engineering | 44 | Avouac, J | A | A | P |
| | | | 45 | Meiron, D | A | A | P |
| MEDICAL ENGINEERING | | | | | | | |
| MedE 099 | + | Undergraduate Research in Medical Engineering | 01 | Petrasek, D | A | A | P |
| | | | 02 | Shapiro, M | A | A | P |
| | | | 03 | Tai, Y | A | A | P |
| | | | 04 | Gao, W | A | A | P |
| | | | 06 | Wang, L | A | A | P |
| MedE 100B | 1-0-0 | Medical Engineering Seminar | 01 | Tai, Y / Gao, W | R 16:00 - 16:55 | 105 ANB | P |
| ChE/BE/MedE 112 | 3-0-6 | Creativity and Technological Innovation with Microfluidic Systems <i>Maximum enrollment: 20 students</i> | 01 | Ismagilov, R | TR 13:00 - 14:25 | 101 SCH | |
| EE/MedE 114A | 4-0-8 | Analog Circuit Design | 01 | Hajimiri, S | TR 09:00 - 10:55 | B270 MRE | |
| MS/ME/MedE 116 | 3-0-6 | Mechanical Behavior of Materials | 01 | Greer, J | TR 14:30 - 15:55 | 104 WAT | |
| EE/MedE 124 | 3-0-6 | Mixed-mode Integrated Circuits | 01 | Emami, A | MW 10:30 - 11:55 | B270 MRE | |
| MedE/EE/BE 168A | 4-0-5 | Biomedical Optics: Principles and Imaging | 01 | Wang, L | TR 14:30 - 16:15 | A | G |
| EE/BE/MedE 185 | 3-0-6 | Micro/Nano Technology for Semiconductor and Medical Device | 01 | Tai, Y | MW 10:30 - 11:55 | 142 KCK | |
| EE/MedE 187 | 3-0-6 | MEMS/NEMS Technologies for Biomedical Devices | 01 | Tai, Y | MW 14:30 - 15:55 | B270 MRE | |
| MedE 201 | 3-0-6 | Introduction to Medical Devices | 01 | Gao, W | MW 13:00 - 14:25 | 142 KCK | G |
| MedE 202 | 3-0-6 | Sensors in Medicine | 01 | Gao, W | MW 09:00 - 10:25 | 142 KCK | G |

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| MEDICAL ENGINEERING | | | | | | | | | | |
| MedE 291 | + | Research in Medical Engineering | 01 | Burdick, J | A | A | P | | | |
| | | | 02 | Karthikeyan, S | A | A | P | | | |
| | | | 03 | Gao, W | A | A | P | | | |
| | | | 04 | Emami, A | A | A | P | | | |
| | | | 05 | Faraon, A | A | A | P | | | |
| | | | 06 | Gharib, M | A | A | P | | | |
| | | | 07 | Greer, J | A | A | P | | | |
| | | | 08 | Hajimiri, S | A | A | P | | | |
| | | | 09 | Scherer, A | A | A | P | | | |
| | | | 10 | Tai, Y | A | A | P | | | |
| | | | 11 | Yang, C | A | A | P | | | |
| | | | 12 | Chandy, K | A | A | P | | | |
| | | | 14 | Colonius, T | A | A | P | | | |
| | | | 15 | Goddard, W | A | A | P | | | |
| | | | 16 | Ismagilov, R | A | A | P | | | |
| | | | 17 | Shapiro, M | A | A | P | | | |
| | | | 18 | Wang, L | A | A | P | | | |
| | | | 19 | Pachter, L | A | A | P | | | |
| | | | 20 | Gradinaru, V | A | A | P | | | |
| | | | 21 | Daraio, C | A | A | P | | | |
| | | | 22 | Kornfield, J | A | A | P | | | |
| | | | 24 | Thomson, M | A | A | P | | | |
| | | | 25 | Andersen, R | A | A | P | | | |
| | | | MUSIC | | | | | | | |
| | | | Mu 058 | 3-0-6 | Harmony I <i>maximum enrollment: 15 students</i> | 01 | Ballance, S | WF 10:30 - 11:55 | A | |
| Mu 138 | 3-0-6 | Themes in Western Music History and Historiography: 1600-1800 <i>maximum enrollment: 15 students</i> | 01 | Ballance, S | TR 13:00 - 14:25 | A | | | | |
| NEUROBIOLOGY | | | | | | | | | | |

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| NEUROBIOLOGY | | | | | | | |
| NB/Bi/CNS 152 | 2-0-4 | Neural Circuits and Physiology of Homeostatic Regulation | 01 | Oka, Y | T 09:00 - 10:55 | B101 BBB | |
| NB/Bi/BE 155 | 3-0-3 | Neuropharmacology | 01 | Staff | A | A | |
| CNS/Bi/NB 247 | 2-0-4 | Cerebral Cortex | 01 | Andersen, R | TR 13:00 - 13:55 | 333 BCK | |
| NB 299 | + | Graduate Research | 01 | Adolphs, R | A | A | P |
| | | | 02 | Allman, J | A | A | P |
| | | | 03 | Andersen, R | A | A | P |
| | | | 04 | Anderson, D | A | A | P |
| | | | 05 | Bronner Hansen, M | A | A | P |
| | | | 06 | Dickinson, M | A | A | P |
| | | | 07 | Gradinaru, V | A | A | P |
| | | | 08 | Hong, E | A | A | P |
| | | | 09 | Kennedy, M | A | A | P |
| | | | 10 | Lester, H | A | A | P |
| | | | 11 | Lois, C | A | A | P |
| | | | 12 | Meister, M | A | A | P |
| | | | 13 | Oka, Y | A | A | P |
| | | | 14 | Prober, D | A | A | P |
| | | | 15 | Roukes, M | A | A | P |
| | | | 16 | Shapiro, M | A | A | P |
| | | | 17 | Shimojo, S | A | A | P |
| | | | 18 | Siapas, A | A | A | P |
| | | | 19 | Sternberg, P | A | A | P |
| | | | 20 | Rangel, A | A | A | P |
| | | | 21 | Wagenaar, D | A | A | P |
| | | | 22 | Zinn, K | A | A | P |
| | | | 23 | Parker, J | A | A | P |
| | | | 24 | Yue, Y | A | A | P |
| | | | 25 | Elowitz, M | A | A | P |
| | | | 26 | Mazmanian, S | A | A | P |

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|-----------------------------------|-------|---|---------|-----------------|-----------------|--------------------------|--------------|
| PERFORMING AND VISUAL ARTS | | | | | | | |
| PVA030B | 0-3-0 | Guitar <i>Sec 1: Beginning Guitar / Sec 2: Intermediate Guitar / Sec 3: Advanced Guitar</i> | 01 | Elgart, M | T 16:30 - 17:25 | Fr Rehearsal Hall HAM | P |
| | | | 02 | Elgart, M | T 15:30 - 16:25 | Fr Rehearsal Hall HAM | P |
| | | | 03 | Elgart, M | T 17:30 - 18:25 | Fr Rehearsal Hall HAM | P |
| PVA031B | 0-3-0 | Chamber Music <i>Sec 1: Mixed Ensembles // Sec 2: Piano four-hands // Sec 3: Guitar Ensemble</i> | 01 | Jasper White, M | OM,A | House Music | P |
| | | | 02 | Ward, R | OM,A | House Music | P |
| | | | 03 | Elgart, M | OM,A | House Music | P |
| PVA032B | 0-3-0 | Symphony Orchestra | 01 | Price, G | T 19:30 - 22:00 | Fr Rehearsal Hall HAM | P |
| PVA033B | 0-3-0 | Wind Orchestra | 01 | Price, G | R 19:30 - 21:45 | Fr Rehearsal Hall HAM | P |
| PVA034B | 0-3-0 | Jazz Band/Jazz Improvisation | 01 | Catlin, B | W 19:30 - 21:00 | Fr Rehearsal Hall HAM | P |
| | | | | | W 21:15 - 22:30 | Fr Rehearsal Hall HAM | |
| PVA035B | 0-3-0 | Glee Club | 01 | Sulahian, N | M 19:00 - 20:30 | Fr Rehearsal Hall HAM | P |
| | | | | | W 17:05 - 18:35 | Fr Rehearsal Hall HAM | |
| PVA037B | 0-3-0 | Chamber Singers | 01 | Sulahian, N | M 20:40 - 22:00 | Fr Rehearsal Hall HAM | P |
| PVA040B | 2-0-1 | Theater Arts Production | 01 | Brophy, B | W 19:00 - 20:25 | Ramo Auditorium BAX | P |
| PVA041B | 2-0-1 | Storytelling for Scientists | 01 | Brophy, B | W 19:00 - 20:25 | Ramo Auditorium BAX | P |
| PVA042B | 2-0-1 | Improvisation for Scientists | 01 | Brophy, B | W 20:30 - 21:55 | Ramo Auditorium BAX | P |
| PVA061B | 0-3-0 | Silk Painting <i>max enrollment: 18 students</i> | 01 | Barry, J | M 19:00 - 21:55 | Garage TCT | P |
| PVA062B | 0-3-0 | Drawing and Painting <i>max enrollment: 17 students per section</i> | 01 | Barry, J | T 19:00 - 21:55 | Garage TCT | P |
| | | | 02 | Barry, J | W 19:00 - 21:55 | Garage TCT | P |

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| PERFORMING AND VISUAL ARTS | | | | | | | |
| PVA063B | 0-3-0 | Ceramics <i>maximum enrollment: 10 students</i> | 01 | Plunkett, L | R 19:00 - 21:55 | POLY | P |
| PHILOSOPHY | | | | | | | |
| Hum/PI 041 | 3-0-6 | Knowledge and Reality <i>Attendance at the first class meeting is required. // maximum enrollment: 15 students per section</i> | 01 | Hitchcock, C | TR 09:00 - 10:25 | A | |
| | | | 02 | Hitchcock, C | TR 13:00 - 14:25 | A | |
| PI 090A | 1-0-8 | Senior Thesis <i>Instructor permission required prior to registering</i> | 01 | Eberhardt, F | A | A | G |
| PI 090B | 1-0-8 | Senior Thesis <i>Instructor permission required prior to registering</i> | 01 | Eberhardt, F | A | A | |
| PI 098 | + | Reading in Philosophy <i>Instructor permission required prior to registering</i> | 01 | Staff | A | A | P |
| HPS/PI/CS 110 | 3-0-6 | Causation and Explanation <i>maximum enrollment: 15 students per section</i> | 01 | Eberhardt, F | TR 13:00 - 14:25 | A | G |
| | | | 02 | Eberhardt, F | TR 14:30 - 15:55 | A | G |
| HPS/PI 123 | 3-0-6 | Introduction to the Philosophy of Physics <i>maximum enrollment: 15 students</i> | 01 | Sebens, C | TR 14:30 - 15:55 | A | |
| HPS/PI 125 | 3-0-6 | Philosophical Issues in Quantum Physics <i>maximum enrollment: 20 students</i> | 01 | Sebens, C | TR 13:00 - 14:25 | A | |
| PI/HPS 183 | 3-0-6 | Bioethics <i>maximum enrollment: 15 students</i> | 01 | Helou, A | TR 10:30 - 11:55 | A | |
| PHYSICAL EDUCATION | | | | | | | |
| PE 001 | 3-0-0 | Wellness <i>maximum enrollment: 20 students // Graduate students may not enroll until Add Day</i> | 01 | Morgan, H | MW 09:00 - 10:25 | BAC | P |
| PE 002 | 3-0-0 | Student Designed Fitness <i>may only be taken once // maximum enrollment: 18 students // Graduate students may not enroll</i> | 01 | Gillis, D | TR 13:00 - 14:25 | BAC | P |

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| PHYSICAL EDUCATION | | | | | | | |
| PE 004 | 3-0-0 | Introduction to Power Walking <i>maximum enrollment: 18 students // Graduate students may not enroll until Add Day</i> | 01 | Peele, N | MW 14:00 - 15:25 | BAC | P |
| PE 005 | 3-0-0 | Beginning Running <i>maximum enrollment: 20 students // Graduate students may not enroll until Add Day</i> | 01 | Horchler, S | TR 09:00 - 10:25 | BAC | P |
| PE 006 | 3-0-0 | Core Training, Beginning/Intermediate <i>maximum enrollment: 18 students // Graduate students may not enroll until Add Day</i> | 01 | Meyring, E | TR 13:00 - 14:25 | BAC | P |
| PE 010 | 3-0-0 | Aerobic Dance <i>maximum enrollment: 20 students // Graduate students may not enroll until Add Day</i> | 01 | Sufi, M | MW 15:00 - 16:25 | BAC | P |
| PE 022 | 1-0-0 | Stretching <i>maximum enrollment: 18 students // Graduate students may not enroll until Add Day</i> | 01 | Morgan, H | T 10:30 - 11:25 | BAC | P |
| PE 023 | 3-0-0 | Pilates <i>maximum enrollment: 18 students // Graduate students may not enroll until Add Day</i> | 01 | Chiang, N | MW 13:00 - 14:25 | BAC | P |
| PE 024 | 3-0-0 | Yoga, Beginning <i>maximum enrollment: 18 students // Graduate students may not enroll until Add Day</i> | 01 | Chiang, N | MW 10:30 - 11:55 | BAC | P |
| PE 031 | 3-0-0 | Indoor Cycling <i>maximum enrollment: 18 students // Graduate students may not enroll until Add Day</i> | 01 | Gizella, M | MW 09:00 - 10:25 | BAC | P |
| PE 040 | 1-0-0 | Beginning Self Defense <i>maximum enrollment: 18 students // Graduate students may not enroll until Add Day</i> | 01 | Herr, C | W 14:30 - 15:25 | BAC | P |
| PE 044 | 3-0-0 | Karate (Shotokan), Beginning and Intermediate/Advanced <i>maximum enrollment: 20 students // Graduate students may not enroll until Add Day</i> | 01 | Sugino, L | TR 14:30 - 15:55 | BAC | P |

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| PHYSICAL EDUCATION | | | | | | | |
| PE 050 | 3-0-0 | Badminton, Beginning/Intermediate <i>maximum enrollment: 16 students // Graduate students may not enroll until Add Day</i> | 01 | Clark, A | MW 09:00 - 10:25 | BAC | P |
| PE 054 | 3-0-0 | Racquetball, Beginning and Intermediate <i>maximum enrollment: 8 students // Graduate students may not enroll until Add Day</i> | 01 | Gardner, T | MW 10:00 - 11:25 | BAC | P |
| PE 056 | 3-0-0 | Squash, Beginning, Intermediate, Advanced <i>maximum enrollment: 18 students // Graduate students may not enroll until Add Day</i> | 01 | Bonafede, J | MW 13:00 - 14:25 | BAC | P |
| PE 071 | 3-0-0 | Weight Training, Intermediate <i>maximum enrollment: 18 students // Graduate students may not enroll until Add Day</i> | 01 | Blake, K | TR 10:30 - 11:55 | BAC | P |
| PE 081 | 3-0-0 | Bouldering <i>may not be repeated // maximum enrollment: 12 students // Graduate students may not enroll until Add Day</i> | 01 | Herbison, J | TR 13:00 - 14:25 | BAC | P |
| PE 082 | 3-0-0 | Rock Climbing, Beginning and Intermediate <i>may not be repeated // maximum enrollment: 12 students // Graduate students may not enroll until Add Day</i> | 01 | Herbison, J | TR 14:30 - 15:55 | BAC | P |
| PE 085 | 3-0-0 | Intercollegiate Track and Field Teams <i>Open to NCAA eligible students only</i> | 01 | Blake, K | MTWRFS 16:00 - 17:55 | BAC | P |
| PE 087 | 3-0-0 | Intercollegiate Swimming and Diving Teams <i>Open to NCAA eligible students only</i> | 01 | Brabson, A | MTWRFS 16:00 - 17:55 | BAC | P |
| PE 090 | 3-0-0 | Intercollegiate Water Polo Teams <i>Open to NCAA eligible students only</i> | 01 | Bonafede, J | MTWRFS 16:00 - 17:55 | BAC | P |
| PE 091 | 3-0-0 | Intercollegiate Basketball Teams <i>Open to NCAA eligible students only</i> | 01 | Tarakchian, A / Eslinger, O | MTWRFS 16:00 - 17:55 | BAC | P |
| PE 093 | 3-0-0 | Intercollegiate Baseball Team <i>Open to NCAA eligible students only</i> | 01 | Whitehead, K | MTWRFS 16:00 - 17:55 | BAC | P |

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| PHYSICAL EDUCATION | | | | | | | |
| PE 095 | 3-0-0 | Intercollegiate Tennis Teams <i>Open to NCAA eligible students only</i> | 01 | Weintraub, B | MTWRFS 16:00 - 17:55 | BAC | P |
| PHYSICS | | | | | | | |
| Ph 001B | 4-0-5 | Classical Mechanics and Electromagnetism <i>Practical Track- Sections 1-5 // Analytical Track - Sections 6-10//Maximum Enrollment: 35 students per section</i> | 01 | Chen, X | WF 15:00 - 15:55 | 201 BRG | P |
| | | | | | MR 13:00 - 13:55 | 102 STL | |
| | | | 02 | Chen, X | WF 15:00 - 15:55 | 201 BRG | P |
| | | | | | MR 13:00 - 13:55 | 269 LAU | |
| | | | 03 | Chen, X | WF 15:00 - 15:55 | 201 BRG | P |
| | | | | | MR 15:00 - 15:55 | 119 KRK | |
| | | | 04 | Chen, X | WF 15:00 - 15:55 | 201 BRG | P |
| | | | | | MR 15:00 - 15:55 | 102 STL | |
| | | | 05 | Chen, X | WF 15:00 - 15:55 | 201 BRG | P |
| | | | | | MR 15:00 - 15:55 | 269 LAU | |
| | | | 06 | Patterson, R | WF 11:00 - 11:55 | 201 BRG | P |
| | | | | | MR 15:00 - 15:55 | 310 LINDE | |
| | | | 07 | Patterson, R | WF 11:00 - 11:55 | 201 BRG | P |
| | | | | | MR 13:00 - 13:55 | 469 LAU | |
| | | | 08 | Patterson, R | WF 11:00 - 11:55 | 201 BRG | P |
| | | | | | MR 13:00 - 13:55 | Hameetman Aud CHL | |
| | | | 09 | Patterson, R | WF 11:00 - 11:55 | 201 BRG | P |
| | | | | | MR 13:00 - 13:55 | 119 KRK | |
| | | | 10 | Patterson, R | WF 11:00 - 11:55 | 201 BRG | P |
| | | | | | MR 15:00 - 15:55 | 107 DWN | |
| Ph 002B | 4-0-5 | Waves, Quantum Mechanics, and Statistical Physics <i>Maximum enrollment: 35 students per section</i> | 01 | Filippone, B | TR 11:00 - 11:55 | 201 BRG | G |
| | | | | | WF 16:00 - 16:55 | 102 STL | |
| | | | 02 | Filippone, B | TR 11:00 - 11:55 | 201 BRG | G |
| | | | | | WF 13:00 - 13:55 | 102 STL | |
| | | | 03 | Filippone, B | TR 11:00 - 11:55 | 201 BRG | G |
| | | | | | WF 09:00 - 09:55 | 102 STL | |
| Ph 003 | 0-3-3 | Introductory Physics Laboratory <i>Maximum enrollment: 24 students per section</i> | 01 | Black, E / Libbrecht, K | W 13:00 - 15:55 | 308 BRG | |
| | | | 02 | Black, E / Libbrecht, K | R 13:00 - 15:55 | 308 BRG | |

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| PHYSICS | | | | | | | |
| Ph 003 | 0-3-3 | Introductory Physics Laboratory <i>Maximum enrollment: 24 students per section</i> | 03 | Black, E / Libbrecht, K | F 13:00 - 15:55 | 308 BRG | |
| Ph 006 | 0-9-0 | Physics Laboratory <i>maximum enrollment: 40 students</i> | 01 | Rice, F / Politzer, H | OM,A | A | |
| Ph 008B | 0-3-0 | Experiments in Electromagnetism <i>enrollment with approval of instructor only</i> | 01 | Spiropulu, M | A | A | P |
| FS/Ph 011B | 2-0-4 | First-Year Seminar: Beyond Physics | 01 | Phillips, R | A | A | P |
| Ph 012B | 4-0-5 | Waves, Quantum Physics, and Statistical Mechanics | 01 | Golwala, S | TR 10:30 - 11:55 | 269 LAU | G |
| Ph 020 | 0-6-0 | Computational Physics Laboratory I | 01 | Adhikari, R | F 13:00 - 16:55 M 11:00 - 11:55 | 269 LAU 269 LAU | P |
| Ph 021 | 0-6-0 | Computational Physics Laboratory II | 01 | Adhikari, R | F 13:00 - 16:55 M 11:00 - 11:55 | 269 LAU 269 LAU | P |
| Ph 050B | 1-0-2 | Caltech Physics League | 01 | Refael, G | A | A | P |
| Ph 070 | 2-0-4 | Oral and Written Communication | 01 | Hitlin, D | T 14:00 - 15:55 | 469 LAU | |
| Ph 077A | 0-5-4 | Advanced Physics Laboratory | 01 | Black, E / Libbrecht, K | OM,W 15:00 - 15:55 | 210 BRG | |
| Ph 077B | 0-5-4 | Advanced Physics Laboratory | 01 | Black, E / Libbrecht, K | OM,W 15:00 - 15:55 | 210 BRG | |
| Ph 077C | 0-5-4 | Advanced Physics Laboratory | 01 | Black, E / Libbrecht, K | OM,W 15:00 - 15:55 | 210 BRG | |
| Ph 078B | + | Senior Thesis (Experiment) | 01 | Libbrecht, K | A | A | P |
| Ph 079B | + | Senior Thesis (Theory) | 01 | Libbrecht, K | A | A | P |

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| PHYSICS | | | | | | | |
| Ph 106B | 4-0-5 | Topics in Classical Physics | 01 | Porter, F | TR 10:30 - 11:55 | 107 DWN | |
| Ph/APh/EE/BE 118A | 3-0-6 | Physics of Measurement | 01 | Roukes, M | TR 14:30 - 15:55 | 387 LINDE | |
| Ph 121B | 0-6-0 | Computational Physics Lab | 01 | Chen, Y | A | A | P |
| Ph 125B | 4-0-5 | Quantum Mechanics | 01 | Cheung, C | MWF 10:00 - 10:55 | 107 DWN | |
| Ph 127B | 4-0-5 | Statistical Physics of Interacting Systems, Phases, and Phase Transitions | 01 | Motrunich, O | MW 13:00 - 14:25 | 107 DWN | |
| Ph 129B | 4-0-5 | Mathematical Methods of Physics <i>PDE's</i> | 01 | Chatzioannou, K | MW 14:30 - 15:55 | 121 BCK | |
| Ph 136B | 3-0-6 | Applications of Classical Physics | 01 | Fuller, J | TR 13:00 - 14:25 | 257 LAU | |
| Ph 139 | 3-0-6 | Introduction to Elementary Particle Physics | 01 | Weinstein, A | TR 13:00 - 14:25 | 103 DWN | |
| Ph 171 | + | Reading and Independent Study | 01 | Adhikari, R | A | A | P |
| | | | 02 | Alicea, J | A | A | P |
| | | | 03 | Atwater, H | A | A | P |
| | | | 04 | Bernardi, M | A | A | P |
| | | | 05 | Bock, J | A | A | P |
| | | | 06 | Guadalupe Dos Santos | A | A | P |
| | | | | Lins Brandao, F | | | |
| | | | 08 | Chen, X | A | A | P |
| | | | 09 | Chen, Y | A | A | P |
| | | | 10 | Cheung, C | A | A | P |
| | | | 11 | Eisenstein, J | A | A | P |
| | | | 12 | Endres, M | A | A | P |
| | | | 13 | Filippone, B | A | A | P |
| | | | 14 | Golwala, S | A | A | P |

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|-----------------|-------|-------------------------------|---------|-------------------|-----------|----------|--------------|
| PHYSICS | | | | | | | |
| Ph 171 | + | Reading and Independent Study | 15 | Gukov, S | A | A | P |
| | | | 16 | Harrison, F | A | A | P |
| | | | 17 | Hitlin, D | A | A | P |
| | | | 18 | Hopkins, P | A | A | P |
| | | | 19 | Hsieh, D | A | A | P |
| | | | 20 | Hunt, M | A | A | P |
| | | | 21 | Hutzler, N | A | A | P |
| | | | 22 | Kapustin, A | A | A | P |
| | | | 23 | Kimble, H | A | A | P |
| | | | 24 | Kitaev, A | A | A | P |
| | | | 25 | Knutson, H | A | A | P |
| | | | 26 | Libbrecht, K | A | A | P |
| | | | 27 | Martin, C | A | A | P |
| | | | 28 | Mawet, D | A | A | P |
| | | | 29 | Motrunich, O | A | A | P |
| | | | 30 | Nad Perge, S | A | A | P |
| | | | 31 | Newman, H | A | A | P |
| | | | 32 | Oguri, H | A | A | P |
| | | | 33 | Painter, O | A | A | P |
| | | | 34 | Patterson, R | A | A | P |
| | | | 35 | Phillips, R | A | A | P |
| | | | 36 | Phinney, E | A | A | P |
| | | | 37 | Politzer, H | A | A | P |
| | | | 38 | Porter, F | A | A | P |
| | | | 39 | Preskill, J | A | A | P |
| | | | 40 | Prince, T | A | A | P |
| | | | 41 | Refael, G | A | A | P |
| | | | 42 | Rosenbaum, T | A | A | P |
| | | | 43 | Roukes, M | A | A | P |
| | | | 44 | Scherer, A | A | A | P |
| | | | 45 | Schwab, K | A | A | P |
| | | | 46 | Schwarz, J | A | A | P |
| | | | 47 | Simmons-Duffin, D | A | A | P |

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| PHYSICS | | | | | | | |
| Ph 171 | + | Reading and Independent Study | 48 | Spiropulu, M | A | A | P |
| | | | 50 | Teukolsky, S | A | A | P |
| | | | 51 | Troian, S | A | A | P |
| | | | 52 | Weinstein, A | A | A | P |
| | | | 53 | Wise, M | A | A | P |
| | | | 54 | Yeh, N | A | A | P |
| | | | 55 | Yue, Y | A | A | P |
| | | | 56 | Zmuidzinas, J | A | A | P |
| | | | 57 | Rangel, A | A | A | P |
| | | | 58 | Zurek, K | A | A | P |
| | | | 59 | McCuller, L | A | A | P |
| | | | 60 | Ghaffari, A | A | A | P |
| | | | 61 | Ye, L | A | A | P |
| | | | 62 | Most, E | A | A | P |
| Ph 172 | + | Research in Physics | 01 | Adhikari, R | A | A | P |
| | | | 02 | Atwater, H | A | A | P |
| | | | 03 | Bock, J | A | A | P |
| | | | 04 | Eisenstein, J | A | A | P |
| | | | 05 | Endres, M | A | A | P |
| | | | 06 | Filippone, B | A | A | P |
| | | | 07 | Golwala, S | A | A | P |
| | | | 08 | Harrison, F | A | A | P |
| | | | 09 | Hitlin, D | A | A | P |
| | | | 10 | Hsieh, D | A | A | P |
| | | | 11 | Hunt, M | A | A | P |
| | | | 12 | Hutzler, N | A | A | P |
| | | | 13 | Kimble, H | A | A | P |
| | | | 14 | Knutson, H | A | A | P |
| | | | 15 | Libbrecht, K | A | A | P |
| | | | 16 | Martin, C | A | A | P |
| | | | 17 | Mawet, D | A | A | P |
| | | | 18 | Nad Perge, S | A | A | P |
| | | | 19 | Newman, H | A | A | P |

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|-----------------|-------|---------------------|---------|----------------------|-----------|----------|--------------|
| PHYSICS | | | | | | | |
| Ph 172 | + | Research in Physics | 20 | Oguri, H | A | A | P |
| | | | 21 | Painter, O | A | A | P |
| | | | 22 | Patterson, R | A | A | P |
| | | | 23 | Phillips, R | A | A | P |
| | | | 24 | Porter, F | A | A | P |
| | | | 25 | Prince, T | A | A | P |
| | | | 26 | Rosenbaum, T | A | A | P |
| | | | 27 | Roukes, M | A | A | P |
| | | | 28 | Scherer, A | A | A | P |
| | | | 29 | Schwab, K | A | A | P |
| | | | 30 | Spiropulu, M | A | A | P |
| | | | 32 | Weinstein, A | A | A | P |
| | | | 33 | Yeh, N | A | A | P |
| | | | 34 | Zmuidzinas, J | A | A | P |
| | | | 36 | Yue, Y | A | A | P |
| | | | 37 | Wise, M | A | A | P |
| | | | 38 | Simmons-Duffin, D | A | A | P |
| | | | 39 | Refael, G | A | A | P |
| | | | 40 | Preskill, J | A | A | P |
| | | | 41 | Bernardi, M | A | A | P |
| | | | 42 | Hopkins, P | A | A | P |
| | | | 43 | Kapustin, A | A | A | P |
| | | | 44 | Gukov, S | A | A | P |
| | | | 45 | Cheung, C | A | A | P |
| | | | 46 | Chen, Y | A | A | P |
| | | | 47 | Chen, X | A | A | P |
| | | | 48 | Guadalupe Dos Santos | A | A | P |
| | | | | Lins Brandao, F | | | |
| | | | 49 | Faraon, A | A | A | P |
| | | | 50 | Alicea, J | A | A | P |
| | | | 51 | Bellan, P | A | A | P |
| | | | 52 | Teukolsky, S | A | A | P |
| | | | 53 | Ravi, V | A | A | P |

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|-----------------|---------|--|---------|-------------------|--------------------|-----------|--------------|
| PHYSICS | | | | | | | |
| Ph 172 | + | Research in Physics | 54 | Zurek, K | A | A | P |
| | | | 56 | Chan, G | A | A | P |
| | | | 57 | Chatzioannou, K | A | A | P |
| | | | 58 | Dore, O | A | A | P |
| | | | 61 | Bradford, C | A | A | P |
| | | | 62 | Bellan, P | A | A | P |
| | | | 63 | McCuller, L | A | A | P |
| | | | 64 | Kasliwal, M | A | A | P |
| | | | 65 | Gregoire, J | A | A | P |
| | | | 66 | Motrunich, O | A | A | P |
| | | | 67 | Wang, Z | A | A | P |
| | | | 68 | Ghaffari, A | A | A | P |
| | | | 69 | Wang, L | A | A | P |
| | | | 70 | Ye, L | A | A | P |
| 71 | Most, E | A | A | P | | | |
| Ph 177 | 0-4-5 | Advanced Experimental Physics | 01 | Rice, F | OM,W 16:00 - 16:55 | 304 BRG | |
| Ph 205B | 3-0-6 | Relativistic Quantum Field Theory | 01 | Wise, M | MW 10:30 - 11:55 | 103 DWN | P |
| Ph/CS 219B | 3-0-6 | Quantum Computation | 01 | Kitaev, A | MW 14:30 - 15:55 | 103 DWN | P |
| Ph/APh 223A | 3-0-6 | Advanced Condensed-Matter Physics | 01 | Alicea, J | MW 09:00 - 10:25 | 103 DWN | |
| Ph 229A | 3-0-6 | Advanced Mathematical Methods of Physics | 01 | Simmons-Duffin, D | TR 10:30 - 11:55 | 469 LAU | P |
| Ph 231A | 3-0-6 | Advanced Topics in Statistical Mechanics | 01 | Kapustin, A | TR 10:30 - 11:55 | 289 LINDE | |
| Ph 242B | 2-0-2 | Physics Seminar | 01 | Hsieh, D | F 12:00 - 13:55 | B160 BRG | P |

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|-----------------|-------|-------------------------------|---------|----------------------|------------------|-----------|--------------|
| PHYSICS | | | | | | | |
| Ph 250A | 3-0-6 | Introduction to String Theory | 01 | Oguri, H | TR 14:30 - 15:55 | 255 LINDE | |
| Ph 300 | + | Thesis Research | 01 | Adhikari, R | A | A | P |
| | | | 02 | Alicea, J | A | A | P |
| | | | 03 | Atwater, H | A | A | P |
| | | | 04 | Bernardi, M | A | A | P |
| | | | 05 | Bock, J | A | A | P |
| | | | 06 | Guadalupe Dos Santos | A | A | P |
| | | | | Lins Brandao, F | | | |
| | | | 08 | Chen, X | A | A | P |
| | | | 09 | Chen, Y | A | A | P |
| | | | 10 | Cheung, C | A | A | P |
| | | | 11 | Eisenstein, J | A | A | P |
| | | | 12 | Endres, M | A | A | P |
| | | | 13 | Filippone, B | A | A | P |
| | | | 14 | Golwala, S | A | A | P |
| | | | 15 | Gukov, S | A | A | P |
| | | | 16 | Harrison, F | A | A | P |
| | | | 17 | Hitlin, D | A | A | P |
| | | | 18 | Hopkins, P | A | A | P |
| | | | 19 | Hsieh, D | A | A | P |
| | | | 20 | Hunt, M | A | A | P |
| | | | 21 | Hutzler, N | A | A | P |
| | | | 22 | Kapustin, A | A | A | P |
| | | | 23 | Kimble, H | A | A | P |
| | | | 24 | Kitaev, A | A | A | P |
| | | | 25 | Knutson, H | A | A | P |
| | | | 26 | Libbrecht, K | A | A | P |
| | | | 27 | Martin, C | A | A | P |
| | | | 28 | Mawet, D | A | A | P |
| | | | 29 | Motrunich, O | A | A | P |
| | | | 30 | Nad Perge, S | A | A | P |
| | | | 31 | Newman, H | A | A | P |

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|--------------------------|------------------|--|---------|-------------------|------------------|----------|--------------|
| PHYSICS | | | | | | | |
| Ph 300 | + | Thesis Research | 32 | Oguri, H | A | A | P |
| | | | 33 | Painter, O | A | A | P |
| | | | 34 | Patterson, R | A | A | P |
| | | | 35 | Phillips, R | A | A | P |
| | | | 36 | Phinney, E | A | A | P |
| | | | 37 | Politzer, H | A | A | P |
| | | | 38 | Porter, F | A | A | P |
| | | | 39 | Preskill, J | A | A | P |
| | | | 40 | Prince, T | A | A | P |
| | | | 41 | Refael, G | A | A | P |
| | | | 42 | Rosenbaum, T | A | A | P |
| | | | 43 | Roukes, M | A | A | P |
| | | | 44 | Scherer, A | A | A | P |
| | | | 45 | Schwab, K | A | A | P |
| | | | 46 | Schwarz, J | A | A | P |
| | | | 47 | Simmons-Duffin, D | A | A | P |
| | | | 48 | Spiropulu, M | A | A | P |
| | | | 50 | Teukolsky, S | A | A | P |
| | | | 51 | Troian, S | A | A | P |
| | | | 52 | Weinstein, A | A | A | P |
| | | | 53 | Wise, M | A | A | P |
| | | | 54 | Yeh, N | A | A | P |
| | | | 55 | Yue, Y | A | A | P |
| 56 | Zmuidzinas, J | A | A | P | | | |
| 57 | Marcolli, M | A | A | P | | | |
| 58 | Ravi, V | A | A | P | | | |
| 59 | Chatziioannou, K | A | A | P | | | |
| 60 | Zurek, K | A | A | P | | | |
| 62 | McCuller, L | A | A | P | | | |
| POLITICAL SCIENCE | | | | | | | |
| PS 012 | 3-0-6 | Introduction to Political Science <i>maximum enrollment: 100 students</i> | 01 | Hirsch, A | TR 10:30 - 11:55 | 153 NYS | |

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| POLITICAL SCIENCE | | | | | | | |
| PS 097 | + | Undergraduate Research <i>Instructor permission required prior to registering</i> | 01 | Staff | A | A | P |
| PS 099A | 3-0-6 | Political Science Research Seminar <i>Designated as Writing Intensive Course // Instructor permission required prior to registering</i> | 01 | Staff | A | A | |
| PS 099B | 3-0-6 | Political Science Research Seminar <i>Designated as Writing Intensive Course // Instructor permission required prior to registering</i> | 01 | Staff | A | A | |
| PS 123 | 3-0-6 | Regulation and Politics <i>Designated as Writing Intensive Course</i> | 01 | Kiewiet, D | W 19:30 - 21:25 | A | G |
| Ec/PS 124 | 3-0-6 | Identification Problems in the Social Sciences | 01 | Sherman, R | TR 14:30 - 16:00 | A | |
| PS 139 | 3-0-6 | Comparative Politics | 01 | Lopez-Moctezuma Jassan, G | M 19:00 - 21:55 | A | G |
| PS 141A | 3-0-6 | A History of Budgetary Politics in the United States <i>Designated as Writing Intensive course // maximum enrollment: 75 students</i> | 01 | Kiewiet, D | T 14:30 - 16:25 | A | G |
| PSYCHOLOGY | | | | | | | |
| Psy/CNS 105B | 1.5-0-3.5 | Frontiers in Neuroeconomics | 01 | O'Doherty, J | T 14:30 - 15:55 | A | |
| Psy/CNS 132 | 3-0-6 | Computational Reinforcement-learning in Biological and Non-biological Systems | 01 | O'Doherty, J | MW 14:30 - 15:55 | A | |
| Psy283B | 1.5-0-1.5 | Graduate Proseminar in Social and Decision Neuroscience <i>this course is only open to graduate students in the Social and Decision Neuroscience, Computational and Neural Systems and Social</i> | 01 | Rangel, A | F 13:00 - 14:25 | A | P |

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| PSYCHOLOGY | | | | | | | |
| SS/Psy/CNS 285 | 1.5-0-1.5 | Topics in Social, Cognitive, and Decision Sciences | 01 | Pomatto, L | M 17:00 - 18:25 | A | P |
| SCIENTIFIC AND ENGINEERING COMMUNICATION | | | | | | | |
| SEC010 | 3-0-0 | Technical Seminar Presentations <i>if class is full, see waitlist form at https://forms.office.com/r/SEVCpEpbvM // class meets in LAU 269 on 1/3/24 and 1/5/24 // maximum enrollment: 18 students per section</i> | 01 | Gold, J | MWF 09:00 - 09:55 | 100 PWB | G |
| | | | 02 | Gold, J | MWF 10:00 - 10:55 | 100 PWB | G |
| | | | 03 | Gold, J | MWF 11:00 - 11:55 | 100 PWB | G |
| SEC011 | 1-0-2 | Written Academic Communication in Engineering and Applied Science <i>Priority given to seniors in E&AS and GPS // maximum enrollment: 20 students // go to https://forms.office.com/r/KABh4Epxap to be added to waitlist when class is full</i> | 01 | George, N | W 10:00 - 10:55 | 104 WAT | G |
| SEC012 | 1-0-2 | Written Professional Communication in Engineering and Applied Science <i>Priority given to seniors in E&AS only // maximum enrollment: 20 students // go to https://forms.office.com/r/KABh4Epxap to be added to waitlist when class is full</i> | 01 | Meyer, V | F 10:00 - 10:55 | 104 WAT | G |
| SEC013 | 1-0-2 | Written Communication about Engineering and Applied Sciences to Non-Specialists <i>Priority given to seniors in E&AS and GPS // maximum enrollment: 20 students // go to https://forms.office.com/r/KABh4Epxap to be added to waitlist when class is full</i> | 01 | Burkett, E | W 11:00 - 11:55 | 104 WAT | G |
| E/SEC 103 | 3-0-6 | Management of Technology <i>Enrollment by application only // No auditors will be allowed // Apply at https://murray.cds.caltech.edu/E/SEC_103,_Winter_2025</i> | 01 | Murray, R | MW 13:30 - 14:55 | A | |
| SOCIAL SCIENCE | | | | | | | |

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| SOCIAL SCIENCE | | | | | | | |
| SS 202B | 3-0-6 | Political Theory <i>Open to Social Science graduate students only</i> | 01 | Hirsch, A | MW 14:30 - 15:55 | A | G |
| SS 205B | 3-0-6 | Foundations of Economics <i>Open to Social Science graduate students only.</i> | 01 | Pomatto, L | MW 13:00 - 14:25 | A | G |
| SS 210B | 3-0-6 | Foundations of Political Economy | 01 | Gibilisco, M | MW 14:30 - 15:55 | A | G |
| SS 211B | 3-0-6 | Advanced Economic Theory | 01 | Pomatto, L | TR 13:00 - 14:25 | A | G |
| SS 212B | 3-0-6 | Experimental Economics | 01 | Nielsen, K | MW 10:30 - 11:55 | A | G |
| SS 222B | 3-0-6 | Econometrics <i>Open to Social Science graduate students only</i> | 01 | Xin, Y | TR 13:00 - 14:25 | A | G |
| SS 229A | 3-0-6 | Theoretical and Quantitative Dimensions of Historical Development | 01 | Rosenthal, J | MWF 11:00 - 11:55 | A | G |
| SS 231A | 3-0-6 | American and Comparative Politics | 01 | Katz, J | F 13:00 - 15:55 | A | G |
| SS 281 | 3-0-6 | Graduate Social Science Writing Seminar | 01 | Gibilisco, M | MWF 11:00 - 11:55 | A | P |
| SS 282B | 1.5-0-1.5 | Graduate Proseminar in Social Science | 01 | Nielsen, K / Janas, P | M 14:30 - 15:55 | A | P |
| SS/Psy/CNS 285 | 1.5-0-1.5 | Topics in Social, Cognitive, and Decision Sciences | 01 | Pomatto, L | M 17:00 - 18:25 | A | P |
| SS 299 | 3-0-6 | Writing | 01 | Sherazi, M | TR 10:30 - 11:55 | A | G |
| SS 300 | + | Research in Social Science | 01 | Adolphs, R | A | A | P |
| | | | 02 | Palfrey, T | A | A | P |
| | | | 03 | Druckenmiller, H | A | A | P |
| | | | 04 | O'Doherty, J | A | A | P |
| | | | 05 | Druckenmiller, H | A | A | P |

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| SOCIAL SCIENCE | | | | | | | |
| SS 300 | + | Research in Social Science | 06 | Katz, J | A | A | P |
| | | | 07 | Kiewiet, D | A | A | P |
| | | | 08 | Niemeyer, A | A | A | P |
| | | | 09 | Tamuz, O | A | A | P |
| | | | 11 | Alvarez, R | A | A | P |
| | | | 12 | Camerer, C | A | A | P |
| | | | 13 | Agranov, M | A | A | P |
| | | | 14 | Cvitanic, J | A | A | P |
| | | | 16 | Rosenthal, J | A | A | P |
| | | | 17 | Hirsch, A | A | A | P |
| | | | 18 | Shum, M | A | A | P |
| | | | 19 | Rangel, A | A | A | P |
| | | | 22 | Sprenger, C | A | A | P |
| | | | 23 | Hoffman, P | A | A | P |
| | | | 24 | O'Doherty, J | A | A | P |
| | | | 27 | Mobbs, D | A | A | P |
| | | | 28 | Sherman, R | A | A | P |
| | | | 29 | Pomatto, L | A | A | P |
| | | | | | | 30 | Nielsen, K |
| STUDENT ACTIVITIES | | | | | | | |
| SA 016B | 0-3-0 | Cooking Basics <i>maximum enrollment: 20 students</i> | 01 | Mannion, T | R 19:00 - 21:55 | Library AVE | P |
| SA 042 | 0-2-2 | Computer Science Education in K-14 Settings Practicum | 01 | Ralph, C / Wierman, A | M 14:00 - 14:55 | 314 ANB | P |
| SA 080B | 1-1-1 | Health Advocates <i>maximum enrollment: 24 students per section</i> | 01 | Mateo, V / Stapf, M | W 19:00 - 21:55 | 132 YHC | P |
| | | | 02 | Mateo, V / Stapf, M | R 19:00 - 21:55 | 132 YHC | P |
| STUDY ABROAD | | | | | | | |
| CAM100 | 36-0-0 | Cambridge Scholars Program | 01 | Staff | A | A | P |

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| STUDY ABROAD | | | | | | | |
| CPH100 | 36-0-0 | Copenhagen Scholars Program | 01 | Staff | A | A | P |
| UCL100 | 36-0-0 | University College London Scholars Program | 01 | Staff | A | A | P |
| EDN100 | 36-0-0 | University of Edinburgh Scholars Program | 01 | Staff | A | A | P |
| VISUAL CULTURE | | | | | | | |
| VC 090 | + | Reading in Visual Culture <i>instructor permission required to enroll</i> | 01 | Staff | A | A | P |
| En/VC 116 | 3-0-6 | Picturing the Universe <i>maximum enrollment: 15 students // Course Closed - Please see instructor for waitlist</i> | 01 | Sullivan, A | W 19:00 - 21:55 | A | G |
| En/VC 117 | 3-0-6 | The New York School of Poets <i>maximum enrollment: 15 students</i> | 01 | Schneiderman, J | TR 10:30 - 11:55 | A | G |
| VC 162 | 3-0-6 | Data, Algorithms and Society <i>taught concurrently with CS/IDS 162 // maximum enrollment: 15 students between VC 162 and CS/IDS 162 // instructor permission required to add // application required https://forms.gle/HxCECWgsUaujvT5d8</i> | 01 | Mushkin, H / Ralph, C | TR 14:30 - 15:55 | 104 ANB | G |
| WRITING | | | | | | | |
| Wr 004 | 1-0-2 | Principles and Practices of Academic Writing <i>maximum enrollment: 12 students // instructor permission required before enrolling</i> | 01 | Hall, S | W 09:00 - 09:55 | A | P |
| Wr 050 | 1-0-0 | Tutorial in Writing <i>individually scheduled class times</i> | 01 | Hall, S | A | A | P |