

## 哥伦比亚大学备选课程目录

### 商科

课程名称		学分	课程程度	所属院系
1	ACCOUNTING I:FINANCIAL ACCOUNTING	3	研究生	Business
2	ADVANCED ECONOMETRICS	3	本科/研究生	Economics
3	ADVANCED FINANCIAL STATEMENT	3	研究生	Business
4	ADVANCED MACROECONOMICS	3	本科/研究生	Economics
5	ASIA AND THE NEW GLOBAL ECONOMICS	3	研究生	Business
6	BUSINESSES AND CAREERS	3	研究生	Business
7	CAMPAIGN MANAGEMENT	3	本科/研究生	International and Public Affairs
8	CORPORATE FINANCE	3	研究生	Continuing Education
9	COST-BENEFIT ANALYSIS	3	研究生	International and Public Affairs
10	DATA SCIENCE:DEVELOPMENT & SOCIAL CHANGE	1	研究生	International and Public Affairs
11	DECISION MODELS & MANAGEMENT	3	研究生	International and Public Affairs
12	DYNAMICS OF LEADERSHIP	3	研究生	International and Public Affairs
13	EARNINGS QUALITY & FUNDAMENTAL	3	研究生	Business
14	ECONOMETRICS	4	本科	Economics at Barnard
15	ECONOMIC DEVELOPMENT OF JAPAN	3	本科/研究生	Economics
16	ECONOMIC GROWTH & DEVELOPMNT I	3	本科/研究生	Economics
17	ECONOMIC HISTORY OF EUROPE	3	本科	Economics at Barnard
18	ECONOMIC OF STRATEGIC BEHAVIOR	3	研究生	Business
19	ECONOMICS OF FINANCE	3	研究生	International and Public Affairs
20	ECONOMICS OF NEW YORK CITY	3	本科/研究生	Economics

## 商科

课程名称		学分	课程程度	所属院系
21	ECONOMICS OF RACE IN THE U.S.	3	本科/研究生	Economics
22	ECONOMICS OF SUSTAINABLE DEVELOPMENT	3	研究生	International and Public Affairs
23	ENVIRONMENTAL FINANCE	3	研究生	International and Public Affairs
24	ENVRNMTL & NATURL RESOURCE ECONOMICS	3	本科	Economics at Barnard
25	ETHICS FOR PUBLIC LEADERSHIP	3	研究生	International and Public Affairs
26	FAMILY ECONOMICS	3	研究生	Economics
27	FED CHALLENGE WORKSHOP	1	本科	Economics
28	FINANCIAL ACCOUNTING	3	研究生	Continuing Education
29	FINANCIAL CRISES	3	本科/研究生	Economics
30	FINANCIAL ECONOMICS	3	本科	Economics
31	FINANCIAL PLANNING & ANALYSIS	1.5	研究生	Business
32	FINANCIAL STATEMENT ANALYSIS	3	研究生	Business
33	FINANCING THE GREEN ECONOMY	3	研究生	International and Public Affairs
34	GAME THEORY	3	本科/研究生	Economics
35	GENDER & APPLIED ECONOMICS	3	本科/研究生	Economics
36	GLOBAL ECONOMIC ENVIROMENT	3	研究生	Business
37	HUMAN RIGHTS PRACTIUM I	1	本科/研究生	International and Public Affairs
38	INDEPENDENT RESEARCH	1—4	本科	Continuing Education
39	INDUSTRIAL ORGANIZATION	3	本科/研究生	Economics
40	INEQUALITY AND POVERTY	3	本科	Economics at Barnard
41	INTERMEDIATE MACROECONOMICS	3	本科	Economics
42	INTERMEDIATE MICROECONOMICS	3	本科	Economics

## 商科

课程名称		学分	课程程度	所属院系
43	INTERMEDTE MACROECONOMC THEORY	4	本科	Economics at Barnard
44	INTERMEDTE MICROECONOMC THEORY	4	本科	Economics at Barnard
45	INTERNATIONAL MONEY AND FINANCE	3	本科	Economics at Barnard
46	INTERNATIONAL TRADE	3	本科/研究生	Economics
47	INTERNATIONAL TRADE	3	研究生	International and Public Affairs
48	INTERNATIONAL ASSIGNMENT: DUBAI	3	研究生	Business
49	INTERNATIONAL FINANCE & MONETARY POLICY	3	研究生	International and Public Affairs
50	INTERNATIONAL FINANCE & MONETARY THEORY	3	研究生	International and Public Affairs
51	INTRODUCTION TO ECONOMIC REASONING	3	本科	Economics at Barnard
52	INTRODUCTION TO ECONOMETRICS	3	本科	School of Economics
53	INTRODUCTION TO ECONOMIC REASONING	3	本科	Continuing Education
54	INTRODUCTION TO FINANCE	3	研究生	Continuing Education
55	INTRODUCTION TO MARKETING	3	本科	Continuing Education
56	INTRODUCTION TO STATISTICAL REASONING	3	本科	Continuing Education
57	LAW OF INNOVATION	1.5	研究生	School of Business
58	LEADING & SUSTAINING CHANGE	1.5	研究生	International and Public Affairs
59	MANAGEMENT & ADMIN OF NONPROFIT ORGANIZA	3	研究生	International and Public Affairs
60	MANAGERIAL ECONOMICS	1.5	研究生	Business
61	MARKETING STRATEGY	3	本科	Continuing Education
62	MARKETING THE ARTS,CULTURE & ENTERTAINMENT	3	MBA	Business
63	MATH METHODS FOR ECONOMICS	4	本科	Economics at Barnard
64	MICROECONOMIC ANALYSIS I	4	研究生	Economics

## 商科

课程名称		学分	课程程度	所属院系
65	MICROECONOMICS & POLICY ANALYSIS II	3	研究生	International and Public Affairs
66	MODERN POLITICAL ECONOMY	3	研究生	Business
67	MONEY AND BANKING	3	本科	Economics at Barnard
68	OIL, RIGHTS & DEVELOPMENT	1	本科/研究生	International and Public Affairs
69	ORAL COMMUNICATIONS: BUSINESS	3	本科	Continuing Education
70	PERSPECTVS ON WORLD ECONOMY	1	研究生	International and Public Affairs
71	POL, SOC & ECON DEVP-BRAZIL II	1.5	本科/研究生	International and Public Affairs
72	POLIT/POL-URBAN SUSTAINABILTY	3	研究生	International and Public Affairs
73	POLITICAL ECONOMY	3	本科/研究生	Economics
74	PRINCIPLES OF ECONOMICS	4	本科	Economics
75	PRIVATE EQUITY AND VENTURE CAP	3	研究生	Business
78	PUBLIC SECTOR MARKET	3	研究生	International and Public Affairs
79	PUBLIC ECONOMICS	3	本科/研究生	Economics
80	RESEARCH COURSE	1—3	本科/研究生	Economics
81	SECURITY ANALYSIS	3	研究生	Continuing Education
82	SEMINAR IN ECONOMETRICS	4	本科/研究生	Economics
83	SEMINAR-MACROECONOMIC THEORY	4	本科/研究生	Economics
84	SENIOR HONORS THESIS WORKSHOP	3	本科/研究生	Economics
85	SENIOR SEMINAR	4	本科	Economics at Barnard
86	SENIOR THESIS II	4	本科	Economics at Barnard
87	SERVICE OPERATIONS MANAGEMENT	3	MBA	Business
88	STATISTICS FOR ECONOMICS	4	本科	Economics at Barnard

## 商科

课程名称		学分	课程程度	所属院系
90	SUPERVISED INDEPENDENT STUDY	1—4	本科/研究生	Economics
91	THE AMERICAN ECONOMY	3	本科	Economics
92	THE ECONOMICS OF EDUCATION	3	本科	Economics at Barnard
93	THEORETICAL FOUNDATIONS-POLITICAL ECONOMY	3	本科	Economics at Barnard
94	VALUE INVESTING IN CREDIT MARKET	3	研究生	Business
95	VENTURE CAPITAL SEMINAR	3	研究生	Business

## 哥伦比亚大学备选课程目录

### 英语

课程名称		学分	课程程度	所属院系
1	18TH CENTURY NOVELISTS SEMINAR	4	研究生	English and Comparative Literature
2	19TH CENTURY NOVEL SEMINAR	4	本科/研究生	English and Comparative Literature
3	20TH CENTURY BRITISH LITERATURE II	3	本科/研究生	English and Comparative Literature
4	ACADEMIC WRITING INTENSIVE	3	本科	English at Barnard
5	ADVANCED WRITING	3	本科	American Language Program
6	ADVANCED POETRY WRITING	3	本科	English at Barnard
7	AFRICAN-AMERICAN LITERATURE I	3	本科	English and Comparative Literature
8	AMERICAN FICTION & PRACTICE OF HISTORY	4	研究生	English and Comparative Literature
9	AMERICAN LITERATURE & CORPORATE CULTURE	4	本科	English and Comparative Literature
10	AMERICAN MODERN & ANTI-MODERNISM	3	本科/研究生	English and Comparative Literature
11	AMERICAN LITERATURE 1871-1945	3	本科	English at Barnard

12	ANGLO-SAXON LANG & LITERATURE INTRODUCTION	3	本科/研究生	English and Comparative Literature
13	CODE AND POETRY	3	本科/研究生	English and Comparative Literature
14	CONTEMPORARY MEDIA THEORY	4	本科	English at Barnard
15	CREATIVE NON-FICTION	3	本科	English at Barnard
16	CRITICAL WRITING	4	本科	English at Barnard
17	DOSTOEVSKY, TOLSTOY & ENGLISH	3	本科/研究生	Slavic Language
18	DRAMA AND DRAMATIC THEORY	4	研究生	English and Comparative Literature
19	EARLY CARIBBEAN LITERATURE	3	本科	English and Comparative Literature

### 英语

课程名称		学分	课程程度	所属院系
20	EARLY ECOPOETICS	4	研究生	English and Comparative Literature
21	EARLY MODERN SEMINAR	4	本科	English and Comparative Literature
22	ENGLISH LITERATURE 1500-1600	3	本科	English and Comparative Literature
23	EPIC FAILS & NEW WORLD DREAMS	4	本科	English and Comparative Literature
24	ESTRANGEMNT/EXILE GLOB NOVELS	4	本科	English at Barnard
25	FICTION & PERSONAL NARRATIVE	3	本科	English at Barnard
26	FIRST-YEAR ENGLISH	3	本科	English at Barnard
27	FORMS OF NEW WORLD NARRATIVE	4	研究生	English and Comparative Literature
28	FOUNDATIONS OF AMERICAN LITERATURE	3	本科	English and Comparative Literature
29	HARLEM RENAISSANCE LITERATURE	3	本科	English at Barnard
30	HISTORY OF ENGLISH	3	本科/研究生	English and Comparative Literature
31	INTRODUCTION TO CLASSICAL RHETORIC	4	本科	English and Comparative Literature
32	INTRODUCTION TO FICTION WRITING	3	本科	English at Barnard
33	INTRODUCTION TO SCHOLARLY EDITING	4	本科/研究生	English and Comparative Literature

34	JOYCE	3	本科	English and Comparative Literature
35	LITERARY TEXTS & CRIT METHODS	4	本科	English and Comparative Literature
36	MAJOR ENGLISH TEXTS I	3	本科	English at Barnard
37	MASTERS SEMINAR	4	研究生	English and Comparative Literature
38	ENGLISH & CONTEMP POETRY	3	本科	English and Comparative Literature
39	MEDIEVAL ENGLISH TEXTS (SEMINAR)	4	本科/研究生	English and Comparative Literature
40	MILTON (SEMINAR)	4	本科	English and Comparative Literature
41	MODERN AMERICAN POETRY	4	研究生	English and Comparative Literature

### 英语

课程名称		学分	课程程度	所属院系
42	MODERN FICTION	4	本科/研究生	English and Comparative Literature
43	MODERNISM	3	本科	English at Barnard
44	NATIVE AMERICAN LITERATURE	4	本科	English and Comparative Literature
45	NOVEL FROM ELIOT TO WHARTON	4	研究生	English and Comparative Literature
46	PLAYWRITING I	3	本科	English at Barnard
47	POSTMODERN POETRIES	4	本科/研究生	English and Comparative Literature
48	PUBLIC SPEAKING	3	本科	English at Barnard
49	READING THE WOMEN'S PRISON	4	本科	English and Comparative Literature
50	RHETORICAL CHOICES: PBLIC SPKNG	3	本科	English at Barnard
51	ROMANTIC POETRY	3	本科/研究生	English and Comparative Literature
52	SALINGER/LOWELL/MCCULLERS	4	本科/研究生	American Studies
53	SEM IN AMERICAN LIT & CULTURE	4	本科	English and Comparative Literature
54	SEMINAR ON SPECIAL THEMES	3	本科	English at Barnard
55	SENIOR SEMINAR	4	本科	English at Barnard

56	SHAKESPEARE I	3	本科	English at Barnard
57	STORY WRITING	3	本科	English at Barnard
58	STUDIES IN AFRICAN-AMER LITERATURE	4	本科	English and Comparative Literature
59	STUDIES IN ENGLISH LITERATURE	4	本科/研究生	English and Comparative Literature
60	STUDIES IN POETRY	4	本科	English and Comparative Literature
61	TEACHING TUTORIAL	3	研究生	English and Comparative Literature
62	THE ART OF THE ESSAY	3	本科	English at Barnard
63	THE BLOOMSBURY GROUP	4	本科	English and Comparative Literature
64	THE CANTERBURY TALES	3	本科	English at Barnard
65	THE ENGLISH COLLOQUIUM	4	本科	English at Barnard
66	THE ENGLISH CONFERENCE	1	本科	English at Barnard
67	THE WRITER'S PROCESS	3	本科	English at Barnard
68	TOPICS IN LITERATURE & SOCIETY	3	本科/研究生	English at Barnard
69	TOPICS-LITERATURE & SOCIETY	4	本科	English and Comparative Literature
70	UNIVERSITY WRITING	3	本科	English and Comparative Literature
71	UNIVERSITY WRITING: AMERICAN STUDY	3	本科	English and Comparative Literature
72	UNIVERSITY WRITING: GENDER	3	本科	English and Comparative Literature
73	UNIVERSITY WRITING: INTERNATIONAL	3	本科	English and Comparative Literature
74	UNIVERSITY WRITING:HUMAN RIGHTS	3	本科	English and Comparative Literature
75	US LIT,POST-CIVIL WAR-MODERNISM	3	本科/研究生	English and Comparative Literature
76	VICTORIAN LITERATURE	3	本科/研究生	English and Comparative Literature

## 哥伦比亚大学备选课程目录

新闻，传媒

课程名称		学分	课程程度	所属院系
1	ADVANCED VIDEO	3	本科/研究生	Visual Arts
2	BEGINNING VIDEO	3	本科	Visual Arts
3	BORDERS,CAMPUS & (IM) IMMOBILITIES	3	研究生	New School of Social Research
4	COMMUNITIES AND SOCIAL CHANGE	4	本科	Sociology at Barnard
5	CRITICAL ISSUES IN ART II	3	本科/研究生	Visual Arts
6	DEVELOPING A MORAL COMPASS	3	本科/研究生	Continuing Education
7	DEVIANCE & SOCIAL CONTROL	4	本科	Sociology
8	HEIDEGGER'S BEING & TIME	3	研究生	New School of Social Research
9	IMMIGRATION & AMERICAN SOCIETY	3	本科	Sociology
10	INFLUENCING DECISIONS	3	本科/研究生	Continuing Education
11	MUSIC, RACE & IDENTITY	3	本科	Sociology at Barnard
12	NAVIGATING/DIGITAL FRONTIER	3	本科/研究生	Continuing Education
13	PHOTOGRAPHY: PHOTO I	3	本科	Visual Arts
14	PORTFOLIO PROJECT	3	本科/研究生	Continuing Education
15	PRACTICE SEMINAR	3	本科/研究生	Continuing Education
16	SOCIAL THEORY	3	本科	Sociology
17	SOCIOLOGY OF CULTURE	4	本科	Sociology at Barnard
18	SOCIOLOGY OF GENDER	3	本科	Sociology
19	SOCIOLOGY OF REPRODUCTION	3	本科	Sociology at Barnard
20	SOCIOLOGY OF WORK & GENDER	3	本科	Sociology

### 新闻，传媒

课程名称		学分	课程程度	所属院系
21	STRATEGIC STORYTELLER	3	本科/研究生	Continuing Education

22	THE ACTIVE AUDIENCE	3	本科/研究生	Continuing Education
23	THE CHANGING AMERICAN FAMILY	3	本科	Sociology
24	THE CRITICAL MIND	3	本科/研究生	Continuing Education
25	THE EVOLVING INDUSTRY	3	本科/研究生	Continuing Education
26	THE SOCIAL WORLD	3	本科	Sociology
27	THE UNIVERSITY IN AMER LIFE	3	本科	Sociology
28	VISITING CRITIC I	2	本科	Visual Arts
29	VISITING CRITIC II	2	本科	Visual Arts
30	WINNING TEAMS	3	本科/研究生	Continuing Education

## 哥伦比亚大学备选课程目录

### 工程与机械工程

课程名称		学分	课程程度	所属院系
1	ADVANCED COMPUTER MODELING	3	本科	Civil Engineering and Engineering Mechanics
2	ADVANCED MECHANICS	3	本科/研究生	Civil Engineering and Engineering Mechanics
3	ADVANCED MECHANICS OF SOLIDS	3	本科/研究生	Civil Engineering and Engineering Mechanics
4	BUCKLING OF STRUCTURES	3	本科/研究生	Civil Engineering and Engineering Mechanics
5	CAPITAL FACILITY PLANNING	3	本科/研究生	Civil Engineering and Engineering Mechanics
6	CHEMICAL ENGINEERING THERMODYNAMICS	3	本科	Chemical Engineering
7	CHEMICAL ENGINEERING & APPLIED CHEMICAL LAB	3	本科	Chemical Engineering
8	CHEMICAL ENGINEERING CONTROL	2	本科/研究生	Chemical Engineering
9	CHEMICAL PROCESS DEVELOPMENT	3	本科/研究生	Chemical Engineering
10	CHEMICAL PRODUCT DESIGN	3	本科/研究生	Chemical Engineering
11	COMPUTATIONAL POROMECHANICS	3	研究生	Civil Engineering and Engineering Mechanics

12	COMPUTER-AIDED STRUCTRL DESIGN	1	本科	Civil Engineering and Engineering Mechanics
13	CONSTRUCTION INDUSTRY LAW	3	本科/研究生	Civil Engineering and Engineering Mechanics
14	CONTAM TRANSP-SUBSURFACE SYSTM	3	本科/研究生	Civil Engineering and Engineering Mechanics
15	DESIGN OF CONSTRUCTION SYSTEMS	3	本科/研究生	Civil Engineering and Engineering Mechanics
16	DESIGN OF LARGE SCALE BRIDGES	3	本科/研究生	Civil Engineering and Engineering Mechanics
17	DYNAMICS AND VIBRATIONS	3	本科	Civil Engineering and Engineering Mechanics
18	EARTHQUAKE & WIND ENGINEERING	3	本科/研究生	Civil Engineering and Engineering Mechanics
19	EGLESTON SCHOLAR ENGINEERING	1	本科	Civil Engineering and Engineering Mechanics
20	ELAS/PLAS ANALYSIS-STRUCTURES	3	本科/研究生	Civil Engineering and Engineering Mechanics

### 工程与机械工程

课程名称		学分	课程程度	所属院系
21	ENGINEER FOR DEVP COMMUNITIES	3	本科	Civil Engineering and Engineering Mechanics
22	ENGINEERING GRAPHICS	3	本科	Civil Engineering and Engineering Mechanics
23	EXPERIMENTAL MECHANICS OF MATERIALS	4	本科	Civil Engineering and Engineering Mechanics
24	EXPERIMENTAL SOIL MECHANICS	3	研究生	Civil Engineering and Engineering Mechanics
25	FINITE ELEMENT ANALYSIS I	3	本科/研究生	Civil Engineering and Engineering Mechanics
26	FINITE ELEMENTS	3	本科	Civil Engineering and Engineering Mechanics
27	FLUID MECHANICS	4	本科	Civil Engineering and Engineering Mechanics
28	FORENSIC STRUCTURL ENGINEERING	3	本科/研究生	Civil Engineering and Engineering Mechanics
29	FOUNDATION ENGINEERING	3	本科/研究生	Civil Engineering and Engineering Mechanics
30	GEOTECHNCL ENGINEERNG FUNDMNTLS	3	本科/研究生	Civil Engineering and Engineering Mechanics
31	IND STUDIES-CIVIL ENGIN-JUNIOR	1—3	本科	Civil Engineering and Engineering Mechanics
32	MANAGE CIVIL INSTRASTUCTURE SYSTEM	3	本科、研究生	Civil Engineering and Engineering Mechanics
33	MECHANICS	4	本科	Civil Engineering and Engineering Mechanics

34	MECHANICS OF SOLIDS	3	本科	Civil Engineering and Engineering Mechanics
35	MULTISCALE COMPUTER SCIENCE & ENGINEERING	3	本科/研究生	Civil Engineering and Engineering Mechanics
36	NONLINEAR COMPUTATIONAL MECHANICS	3	研究生	Civil Engineering and Engineering Mechanics
37	POLYMER SURFACES & INTERFACES	3	本科/研究生	Chemical Engineering
38	PREV&RESOL OF CONSTR DISPUTES	3	本科/研究生	Civil Engineering and Engineering Mechanics
39	PRINCIPLES OF CONSTRUCTN TECHNIQUES	3	本科/研究生	Civil Engineering and Engineering Mechanics
40	PRINCIPLES OF PROCESS DESIGN	4	本科/研究生	Chemical Engineering
41	PROCESS & PRODUCT DESIGN II	4	本科/研究生	Chemical Engineering
42	PROCESS SAFETY	3	本科/研究生	Chemical Engineering

### 工程与机械工程

课程名称		学分	课程程度	所属院系
43	PROJECT MGMT FOR CONSTRUCTION	3	本科	Civil Engineering and Engineering Mechanics
44	PROTECTN OF INDUST	3	本科/研究生	Chemical Engineering
45	RANDOM PROCESSES IN MECHANICS	3	研究生	Civil Engineering and Engineering Mechanics
46	REACTOR KINETICS/REACTOR DESIGN	3	本科/研究生	Chemical Engineering
47	REAL ESTATE FIN/CONST MANAG	3	本科/研究生	Civil Engineering and Engineering Mechanics
48	STATISTICAL MECHANICS	3	本科/研究生	Chemical Engineering & Applied Physics
49	STRUCTURAL ANALYSIS	3	本科	Civil Engineering and Engineering Mechanics
50	STRUCTURAL DESIGN	3	本科	Civil Engineering and Engineering Mechanics
51	STRUCTURAL DESIGN PROJECTS	3	本科	Civil Engineering and Engineering Mechanics
52	STRUCTURAL HEALTH MONITORING	3	研究生	Civil Engineering and Engineering Mechanics
53	SUSTAINABLE WATER TREAT/REUSE	3	本科、研究生	Civil Engineering and Engineering Mechanics
54	THE ART OF STRUCTURAL DESIGN	3	本科	Civil Engineering and Engineering Mechanics
55	THEORY OF VIBRATIONS	3	本科/研究生	Civil Engineering and Engineering Mechanics

56	THRY/PRACT OF VIRTAL DSGN CONS	3	研究生	Civil Engineering and Engineering Mechanics
57	TOPICS IN SOFT MATERIALS	3	本科/研究生	Chemica Engineering
58	TOPICS IN TRANSPORT PHENOMENA	3	本科/研究生	Chemical Engineering
59	TRANSPORT PHENOMENA II	3	本科	Chemical Engineering
60	TRANSPORT PHENOMENA III	3	本科/研究生	Chemical Engineering
61	TRANSPORTATION ENGINEERING	3	本科/研究生	Civil Engineering and Engineering Mechanics
62	TUNNEL DESIGN & CONSTRUCTION	3	本科/研究生	Civil Engineering and Engineering Mechanics
63	UNCERTAIN/RISK-CIVIL INF SYSTEM	3.5	本科	Civil Engineering and Engineering Mechanics
64	UNDERGRADUATE RESEARCH PROJECT	0—6	本科	Chemical Engineering
65	URBAN ECOLOGY STUDIO	4	研究生	Civil Engineering and Engineering Mechanics
66	URBAN INFRASTRUCTURE SYSTEMS	3	本科	Civil Engineering and Engineering Mechanics

## 哥伦比亚大学备选课程目录

### 电气工程

	课程名称	学分	课程程度	所属院系
1	ADVANCED DIGITAL SIGNAL PROCESSING	3	研究生	Electrical Engineering
2	ADVANCED LOGIC DESIGN	3	本科/研究生	Computer Science
3	ADVANCED PROJECTS	1—4	研究生	Electrical Engineering
4	ALGEBRAIC CODING THEORY	3	研究生	Electrical Engineering
5	ANALOG ELECTRONIC CIRCUITS	3	本科/研究生	Electrical Engineering
6	BRAIN COMPUTER INTERFACES LAB	3	本科/研究生	Electrical Engineering
7	CIRCUIT ANALYSIS	3.5	本科	Electrical Engineering
8	CIRCUIT ANALYSIS LABORATORY	1	本科	Electrical Engineering
9	COMMUNICATION CIRCUITS	3	本科/研究生	Electrical Engineering

10	COMMUNICATION NETWORKS	3	研究生	Electrical Engineering
11	COMPUTER NEURO: CIRCUITS IN BRAIN	3	本科/研究生	Electrical Engineering
12	COMPUTER ARCHITECTURE	3	本科/研究生	Computer Science
13	COMPUTER HARDWARE DESIGN	3	本科/研究生	Computer Science
14	COMPUTER NETWORKS	3	本科/研究生	Computer Science
15	CONVEX OPTIMIZATION FOR ELEN	3	研究生	Electrical Engineering
16	CONVEX OPTIMIZATION-EE	3	研究生	Electrical Engineering
17	DETECTION & ESTIMATION THEORY	3	研究生	Electrical Engineering
18	DEVICE NANOFABRICATION	3	研究生	Electrical Engineering
19	DIGITAL COMMUNICATIONS	3	本科/研究生	Electrical Engineering
20	DIGITAL SIGNAL PROCESSING	3	本科/研究生	Electrical Engineering

### 电气工程

课程名称		学分	课程程度	所属院系
21	DIGITAL SYSTEMS LABORATORY	1	本科	Electrical Engineering
22	DIGITAL VLSI CIRCUITS	3	本科/研究生	Electrical Engineering
23	ELECTRICAL CIRCUIT DESIGN LABORATORY	3	本科	Electrical Engineering
24	ELECTRICAL ENGINEERING PRACTICE	3	本科	Mechanical Engineering
25	ELECTROMAGNETICS	4	本科	Electrical Engineering
26	ELECTRONIC CIRCUITS	3	本科	Electrical Engineering
27	ELECTRONIC CIRCUITS LABORATORY	1	本科	Electrical Engineering
28	EMBEDDED SYSTEMS	3	本科/研究生	Computer Science
29	FUNDAMENTALS OF COMPUTER	3	本科/研究生	Computer Science
30	FUNDAMENTALS OF PHOTONICS	3	本科/研究生	Computer Science
31	INTERMEDIATE PROJECTS	0-3	本科/研究生	Electrical Engineering

32	INTERNET ECON, ENG & SOCIETY	3	研究生	Electrical Engineering
33	INTRO TO COMMUNICATION SYSTEMS	3	本科	Electrical Engineering
34	INTRO TO CONTROL THEORY	3	研究生	Electrical Engineering
35	INTRO-ELECTRICAL ENGINEERING	3.5	本科	Electrical Engineering
36	INTRO-GENOMIC INFO SCI & TECH	3	本科/研究生	Electrical Engineering
37	LIGHTWAVE DEVICES	3	研究生	Electrical Engineering
38	LIGHTWAVE SYSTEMS	3	研究生	Electrical Engineering
39	MILLIMETER-WAVE IC DESIGN	3	研究生	Electrical Engineering
40	MODELING DISPLAY SCI & TECHNOLOGY	3	本科/研究生	Electrical Engineering
41	MODELING-PERFORMNCE EVALU	3	研究生	Computer Science
42	NETWORKING LABORATORY	3	本科/研究生	Electrical Engineering

### 电气工程

课程名称		学分	课程程度	所属院系
43	NEURAL CONTROL ENGINEER	3	本科/研究生	Biomedical Engineering
44	OPTICAL INTERCONNECTS	3	研究生	Electrical Engineering
45	OPTICAL SYSTEMS	3	本科/研究生	Computer Science
46	POWER SYSTEMS ANALYSIS	3	本科/研究生	Electrical Engineering
47	PRNCPLS OF DEVICE MICROFABRCTN	3	本科/研究生	Electrical Engineering
48	PROJECTS IN ELEC ENGINEERING	0—3	本科	Electrical Engineering
49	RANDOM SIGNALS & NOISE	3	本科/研究生	Electrical Engineering
50	COMPUTER SCIENCE	3	研究生	Electrical Engineering
51	SIGNALS & SYSTEMS LABORATORY	1	本科	Electrical Engineering
52	SIGNALS AND SYSTEMS	3.5	本科	Mechanical Engineering
53	SOFTWARE DEFINED NETWORKING	3	研究生	Computer Science

54	SOLID STATE DEVICES-MATERIALS	3.5	本科	Electrical Engineering
55	SPEECH/AUDIO PROCESSING-RECOG	4.5	研究生	Electrical Engineering
56	SYSTEM-ON-CHIP PLATFORMS	3	研究生	Computer Science
57	THE DIGITAL INFORMATION AGE	3	本科	Electrical Engineering
58	TOPIC FROM DATA TO SOLUTIONS	3	研究生	Electrical Engineering
59	TOPICS IN SIGNAL PROCESSING	3	研究生	Electrical Engineering
60	TOPICS IN VLSI SYSTEMS DESIGN	3	研究生	Electrical Engineering
61	TOPICS-INFORMATION PROCESSING	3	研究生	Electrical Engineering
62	TOPICS-INFORMATION PROCESSING TOPIC FROM DATA TO SOLUTIONS	3	研究生	Electrical Engineering
63	TPC: BIG DATA ANALYTICS	3	研究生	Electrical Engineering

### 电气工程

课程名称		学分	课程程度	所属院系
64	TPCS ADV WIRELESS COMM AND NETWORKING	3	研究生	Electrical Engineering
65	TOPICS:COMPUT NEUROSCI/NEUR	3	研究生	Electrical Engineering
66	TOPICS:INTERNET,ECON & ENG	3	研究生	Electrical Engineering
67	TOPICS:TELECOMMUNICATION NETWORK	3	研究生	Electrical Engineering
68	TPCS-ELEC & COMPUT ENGINEERING	3	研究生	Electrical Engineering
69	WIRELESS & MOBILE NETWORKING I	4.5	研究生	Electrical Engineering

### 哥伦比亚大学备选课程目录

#### 计算机科学

课程名称		学分	课程程度	所属院系
1	ADVANCED DIGITAL ELECTRONIC	4.5	研究生	Computer Science

2	ADVANCED DATABASE SYSTEMS	3	研究生	Computer Science
3	ADVANCED INTERNET SERVICES	3	研究生	Computer Science
4	ADVANCED LOGIC DESIGN	3	本科/研究生	Computer Science
5	ADVANCED MACHINE LEARNING	3	本科/研究生	Computer Science
6	ADVANCED PROGRAMMING	4	本科	Computer Science
7	ANALYSIS OF ALGORITHMS I	3	本科/研究生	Computer Science
8	COMPUTATIONAL GENOMICS	3	本科/研究生	Computer Science
9	COMPUTATIONAL LINEAR ALGEBRA	3	本科	Computer Science
10	COMPUTER ARCHITECTURE	3	本科/研究生	Computer Science
11	COMPUTER GRAPHICS	3	本科/研究生	Computer Science
12	COMPUTER HARDWARE DESIGN	3	本科/研究生	Computer Science
13	COMPUTER NETWORKS	3	本科/研究生	Computer Science
14	COMPUTER SCIENCE THEORY	3	本科	Computer Science
15	COMPUTER SYSTEMS FOR DATA SCIENCE	3	本科/研究生	Computer Science
16	COMPUTING IN CONTEXT	4	本科	Computer Science
17	DATA STRUCTURES IN JAVA	3	本科	Computer Science
18	DATABASE SYSTEM IMPLEMENTATION	3	本科/研究生	Computer Science
19	DISCRETE MATHEMATICS	3	本科	Computer Science
20	EMBEDDED SYSTEMS	3	本科/研究生	Computer Science
21	EMERGING SCHOLARS PROG SEMINAR	1	本科	Computer Science
22	ESSENTIAL DATA STRUCTURES	4	本科	Computer Science
23	FUNDAMENTALS OF COMPUTER	3	本科/研究生	Computer Science
24	FUNDAMENTALS OF COMPUTER SYSTEMS	3	本科	Computer Science
25	FUNDAMENTALS OF PHOTONICS	3	本科/研究生	Computer Science

26	HONORS DATA STRUCTURES & ALGOL	4	本科	Computer Science
27	INTRODUCTION TO COMPUTER	3	本科	Computer Science
28	INTRODUCTION TO INFORMATION SCIENCE	3	本科	Computer Science
29	INTRO-COMPUT SCIENCE IN JAVA	3	本科	Computer Science
30	INTRODUCTION TO DATABASES	3	本科/研究生	Computer Science
31	INTRUSION DETECTION SYSTEMS	3	研究生	Computer Science
32	MACHINE LEARNING	3	本科/研究生	Computer Science
33	MACHINE LEARNING FOR DATA SCIENCE	3	本科/研究生	Computer Science
34	MODELING-PERFORMNCE EVALU	3	研究生	Computer Science
35	NATURAL LANGUAGE PROCESSING	3	本科/研究生	Computer Science
36	NETWORK SECURITY	3	本科/研究生	Computer Science
37	OPERATING SYSTEMS I	3	本科/研究生	Computer Science
38	OPERATING SYSTEMS, II	3	研究生	Computer Science
39	OPTICAL SYSTEMS	3	本科/研究生	Computer Science
40	PROG ENVIRONMNT-SOFTWARE TOOLS	3	研究生	Computer Science
41	PROGRAMMING LANG & TRANSLATORS	3	本科/研究生	Computer Science
42	PROGRAMMING LANGUAGES	1	本科	Computer Science
43	PROJECTS IN COMPUTER SCIENCE	3	本科/研究生	Computer Science
44	SCIENTIFIC COMPUTATION	3	本科	Computer Science
45	SOFTWARE DEFINED NETWORKING	3	研究生	Computer Science
46	SYSTEM-ON-CHIP PLATFORMS	3	研究生	Computer Science
47	TECH WRITING FOR CS AND ENGINRS	1	研究生	Computer Science
48	TOPIC ADV BIG DATA ANALYTICS	3	研究生	Computer Science
49	TOPIC DEEP LEARNING COMMON VISION	3	研究生	Computer Science

50	TOPICS IN COMPUTER SCIENCE	3	本科	Computer Science
51	VISUAL INTERFACES TO COMPUTERS	3	本科/研究生	Computer Science

### 计算机科学

	课程名称	学分	课程程度	所属院系
21	EMERGING SCHOLARS PROG SEMINAR	1	本科	Computer Science
22	ESSENTIAL DATA STRUCTURES	4	本科	Computer Science
23	FUNDAMENTALS OF COMPUTER	3	本科/研究生	Computer Science
24	FUNDAMENTALS OF COMPUTER SYSTEM	3	本科	Computer Science
25	FUNDAMENTALS OF PHOTONICS	3	本科/研究生	Computer Science
26	HONORS DATA STRUCTURES & ALGOL	4	本科	Computer Science
27	INTRODUCTION TO COMPUTER	3	本科	Computer Science
28	INTRODUCTION TO INFORMATION SCIENCE	3	本科	Computer Science
29	INTRO-COMPUT SCIENCE IN JAVA	3	本科	Computer Science
30	INTRODUCTION TO DATABASES	3	本科/研究生	Computer Science
31	INTRUSION DETECTION SYSTEMS	3	研究生	Computer Science
32	MACHINE LEARNING	3	本科/研究生	Computer Science
33	MACHINE LEARNING FOR DATA SCIENCE	3	本科/研究生	Computer Science
34	MODELING-PERFORMNCE EVALU	3	研究生	Computer Science
35	NATURAL LANGUAGE PROCESSING	3	本科/研究生	Computer Science
36	NETWORK SECURITY	3	本科/研究生	Computer Science
37	OPERATING SYSTEMS I	3	本科/研究生	Computer Science
38	OPERATING SYSTEMS, II	3	研究生	Computer Science
39	OPTICAL SYSTEMS	3	本科/研究生	Computer Science

40	PROG ENVIRONMNT-SOFTWARE TOOLS	3	研究生	Computer Science
41	PROGRAMMING LANG & TRANSLATORS	3	本科/研究生	Computer Science
42	PROGRAMMING LANGUAGES	1	本科	Computer Science

### 计算机科学

	课程名称	学分	课程程度	所属院系
43	PROJECTS IN COMPUTER SCIENCE	3	本科/研究生	Computer Science
44	SCIENTIFIC COMPUTATION	3	本科	Computer Science
45	SOFTWARE DEFINED NETWORKING	3	研究生	Computer Science
46	SYSTEM-ON-CHIP PLATFORMS	3	研究生	Computer Science
47	TECH WRITING FOR CS AND ENGINRS	1	研究生	Computer Science
48	TOPIC ADV BIG DATA ANALYTICS	3	研究生	Computer Science
49	TOPIC DEEP LEARNING COMMON VISION	3	研究生	Computer Science
50	TOPICS IN COMPUTER SCIENCE	3	本科	Computer Science
51	VISUAL INTERFACES TO COMPUTERS	3	本科/研究生	Computer Science

### 哥伦比亚大学备选课程目录

#### 材料科学与工程

	课程名称	学分	课程程度	所属院系
1	ANALYSIS AND OPTIMIZATION	3	本科	Mathematics
2	ANALYTIC METHODS FOR PDE'S	3	研究生	Applied Physics and Applied Mathematics
3	APPLIED ELECTROMAGNETISM	3	本科	Applied Physics and Applied Mathematics
4	APPLIED MATHEMATICS II: PDE'S	3	本科	Applied Physics and Applied Mathematics
5	ATOMIC-SCALE ENG-NEW MATERIALS	3	本科	Applied Physics and Applied Mathematics
6	CALCULUS I	3	本科	Mathematics
7	CALCULUS II	3	本科	Mathematics

8	CALCULUS III	3	本科	Mathematics
9	CALCULUS IV	3	本科	Mathematics
10	CERAMICS & COMPOSITES	3	本科/研究生	Applied Physics and Applied Mathematics
11	COLLEGE ALGEBRA-ANLYTC GEOMTRY	3	本科	Mathematics
12	COMBINATORICS	3	本科	Mathenatics at Barnard
13	COMPLEX VARIABLES	3	本科	Mathematics
14	COMPUT MATH:INTRO-NUMERCL MATHEMATICS	3	本科/研究生	Applied Physics and Applied Mathematics
15	CRYSTALLOGRAPHY	3	本科/研究生	Applied Physics and Applied Mathematics
16	DESIGN PROJECT	3	本科	Applied Physics and Applied Mathematics
17	DIAGNOSTIC RADIOLOGY PHYSICS	3	研究生	Applied Physics and Applied Mathematics
18	DISCRETE TIME MODELS IN FINANC	3	本科	Mathematics
19	ELECTRICITY & MAGNETIC PROPPEM OF SOLIDS	3	本科/研究生	Applied Physics and Applied Mathematics
20	ELECTRICITY & MAGNETISM	4.5	本科	Physics

### 材料科学与工程

课程名称		学分	课程程度	所属院系
21	ELEMENTS OF MATERIALS SCIENCE	3	本科	Applied Physics and Applied Mathematics
22	GENERAL PHYSICS I	3	本科	Physics
23	GENERAL PHYSICS I LAB	1	本科	Physics
24	GENERAL PHYSICS II	3	本科	Physics
25	GENERAL PHYSICS II LABORATORY	1	本科	Physics
26	GEOPHYSICAL FLUID DYNAMICS	3	本科/研究生	Applied Physics and Applied Mathematics
27	HONORS MATHEMATICS B	4	本科	Mathematics
28	INTRO TO APPLIED MATHEMATICS	3	本科	Applied Physics and Applied Mathematics
29	INTRO TO EXPERIMENTAL PHYS-LAB	3	本科	Physics

30	INTRO TO HIGHER MATHEMATICS	3	本科	Mathematics
31	INTRO TO PLASMA PHYSICS	3	本科/研究生	Applied Physics and Applied Mathematics
32	INTRO TO QUANTUM MECHANICS	3	本科	Applied Physics and Applied Mathematics
33	LAB IN MATERIALS SCIENCE	3	本科	Applied Physics and Applied Mathematics
34	LASER PHYSICS	3	本科/研究生	Applied Physics and Applied Mathematics
35	LINEAR ALGEBRA	3	本科	Mathematics
36	MATERIALS SCIENCE LABORATORY	1—3	本科/研究生	Applied Physics and Applied Mathematics
37	MATERIALS SCIENCE REPORTS	0-6	研究生	Applied Physics and Applied Mathematics
38	MECH BEHAVIOR OF MATERIALS	3	本科/研究生	Applied Physics and Applied Mathematics
39	NANOTECHNOLOGY	3	本科/研究生	Applied Physics and Applied Mathematics
40	NUMBER THEORY AND CRYPTOGRAPHY	3	本科	Mathematics
41	ORDINARY DIFFERENTIAL EQUATION	3	本科	Mathematics
42	PARTIAL DIFFERENTIAL EQUATIONS	3	本科	Mathematics

### 材料科学与工程

课程名称		学分	课程程度	所属院系
43	PHYSICS FOR POETS	3	本科	Physics
44	PLASMA PHYSICS II	3	研究生	Applied Physics and Applied Mathematics
45	PROCESSING-CERAMICS & POLYMERS	3	本科	Applied Physics and Applied Mathematics
46	PROCESSING-SEMICONDUCTRS	3	本科	Applied Physics and Applied Mathematics
47	RADIATION THERAPY PHYSICS	3	研究生	Applied Physics and Applied Mathematics
48	RADIOBIOLOGY FOR PHYSICS	3	本科/研究生	Applied Physics and Applied Mathematics
49	RESEARCH PROJECT	1—6	研究生	Applied Physics and Applied Mathematics

50	SELECTED TPCS IN MATERIALS SCIENC	3	研究生	Applied Physics and Applied Mathematics
51	SENIOR THESIS IN MATHEMATICS	4	本科	Mathematics
52	SPEC TOPICS IN APPLIED MATH	3	本科/研究生	Applied Physics and Applied Mathematics
53	SPEC TOPICS:MATERIAL SCI & ENGIN	3	本科/研究生	Applied Physics and Applied Mathematics
54	STRUCTRL ANALYSIS OF MATERIALS	3	本科/研究生	Applied Physics and Applied Mathematics
55	THERMO/KINETIC THRY/STAT MECH	3	本科	Applied Physics and Applied Mathematics
56	THERMODYNAMCS-REACTN IN SOLIDS	3	本科/研究生	Applied Physics and Applied Mathematics
57	THIN FILMS AND LAYERS	3	研究生	Applied Physics and Applied Mathematics
58	UNDERGRAD RES IN APPLIED MATH	0-4	本科	Applied Physics and Applied Mathematics
59	UNDERGRAD RES IN MATERIALS SCI	0-4	本科	Applied Physics and Applied Mathematics
60	UNDERGRAD RESRCH-APPLD PHYSICS	0-4	本科	Applied Physics and Applied Mathematics
61	UNDERGRADUATE SEMINARS II	3	本科	Mathematics

## 哥伦比亚大学备选课程目录

### 环境（环境生物学，环境卫生，环境科学）

课程名称		学分	课程程度	所属院系
1	ENVIRONMENTAL HEALTH SCIENCES	3	研究生	Environmental Health Sciences
2	ANALYSIS OF ENVIRONMENTAL HEALTH	3	研究生	Environmental Health Sciences
3	JOURNAL CLUB-EPI & TOXIOLOGY	0.5	研究生	Environmental Health Sciences
4	PUB HLTH IMPACTS-CLIMATE CHANGE	3	研究生	Environmental Health Sciences
5	MOLECULAR TOXICOLOGY	3	研究生	Environmental Health Sciences
6	BASIC & APPLIED NUTRITIONAL SCIENCE	3	研究生	Environmental Health Sciences
7	APPLIED ENVRNTL & INDUST HYGIENE	3	研究生	Environmental Health Sciences
8	ENVIR DETERM OF HUMAN HEALTH II	3	研究生	Environmental Health Sciences

9	LABORATORY METHODS IN EHS	3	研究生	Environmental Health Sciences
10	SEM-CLIMATE & HEALTH STUDENTS	0.5	研究生	Environmental Health Sciences
11	RISK, ASSESSMENT, COMM/MGMT	3	研究生	Environmental Health Sciences
12	WATER,SANITATION & HUM HEALTH	3	研究生	Environmental Health Sciences
13	PUBLIC HEALTH	3	研究生	Environmental Health Sciences
14	POLICY CERT PREPRACTICUM SEMINAR	0.5	研究生	Environmental Health Sciences
15	ENVIRONMENTAL DATA ANALYSIS	3	研究生	International and Public Affairs
16	ENVIRONMENTAL SCIENCE II	4.5	本科	Environmental Sciences at Barnard
17	HYDROLOGY	3	本科	Environmental Sciences at Barnard
18	CASE STUDY LAND-USE DYNAMICS	3	本科	Environmental Sciences at Barnard
19	ENVIRONMENTAL LAW	3	本科	Environmental Sciences at Barnard

**环境（环境生物学，环境卫生，环境科学）**

课程名称		学分	课程程度	所属院系
20	RESPONDING TO CLIMATE CHANGE	3	本科	Environmental Sciences at Barnard
21	BIG DATA WITH PYTHON	3	本科	Environmental Sciences at Barnard
22	ENVIR SCIENCE SENIOR SEM II	3	本科	Environmental Sciences at Barnard
23	SENIOR SEMINAR	3	本科	Environmental Sciences at Barnard
24	A BETTER PLANET BY DESIGN	3	本科	Earth and Environmental Engineering
25	EARTH & ENVIR ENGIN LAB I	2	本科	Earth and Environmental Engineering
26	UNDERGRAD RES-ENVIRONMTL ENGINEERING	0-3	本科	Earth and Environmental Engineering
27	ENVIRONMENTAL MICROBIOLOGY	3	本科	Earth and Environmental Engineering
28	UNDERGRADUATE PROJECT II	2	本科	Earth and Environmental Engineering

29	GIS-RES,ENVIR,INFRASTRUCTR MGT	3	本科/研究生	Earth and Environmental Engineering
30	AIR POLLUTION PREVENTION/CONTR	3	本科/研究生	Earth and Environmental Engineering
31	PRODUCTION-INORGANIC MATERIALS	3	本科/研究生	Earth and Environmental Engineering
32	ENVIR DATA ANALYSIS & MODELING	3	本科/研究生	Earth and Environmental Engineering
33	ENVIRONMENTAL MICROBIOLOGY	3	本科/研究生	Earth and Environmental Engineering
34	NUMERICAL MTHS IN GEOMECHANICS	3	研究生	Earth and Environmental Engineering
35	INDUSTRIAL CATALYSIS	3	研究生	Earth and Environmental Engineering
36	CARBON SEQUESTRATION	3	研究生	Earth and Environmental Engineering
37	WATER,SANITATION & HUM	3	研究生	Earth and Environmental Engineering
38	PRIN-GENETICS & ENVIRONMENT I	3	研究生	Earth and Environmental Engineering
39	CLIMATE SCIENCE FOR PUB HEALTH	3	研究生	Earth and Environmental Engineering
40	OCCUPATIONAL AND ENVIRONMENTAL HYGIENE	3	研究生	Earth and Environmental Engineering

### 环境（环境生物学，环境卫生，环境科学）

课程名称		学分	课程程度	所属院系
41	FUNDAMENTALS OF TOXICOLOGY	3	研究生	Earth and Environmental Engineering
42	TOXICOKINETICS	3	研究生	Earth and Environmental Engineering
43	SCI BASIC TO PUB HEALTH PRACT	3	研究生	Earth and Environmental Engineering
44	BIOL MARKERS OF CHEM EXPOSURE	3	研究生	Earth and Environmental Engineering
45	PUBLIC HEALTH GIS	3	研究生	Earth and Environmental Engineering
46	TUT-ENVIRONMENTL HTLTH SCIENCES	3	研究生	Earth and Environmental Engineering

### 哥伦比亚大学备选课程目录

#### 公共事业管理（卫生政策与管理，公共事务，社会学）

课程名称		学分	课程程度	所属院系
1	ADVANCED HEALTH POLICY SEMINAR	1.5	研究生	Health Policy & Management

2	ADVANCED TOPICS RACE & ETHNICITY	4	本科	Sociology at Barnard
3	BECOMING A BETTER WRITER	1	研究生	Health Policy & Management
4	BENCHMARKING SKILLS DEVELOPMNT	1.5	研究生	International and Public Affairs
5	CAMPAIGN MANAGEMENT	3	本科/研究生	International and Public Affairs
6	CHILD HEALTH POLICY	1.5	研究生	Health Policy & Management
7	COMMUNITIES AND SOCIAL CHANGE	4	本科	Sociology at Barnard
8	COMPETITIVE HEALTH STRATEGY	1.5	研究生	Health Policy & Management
9	CONSULTING WORKSHOP	3	研究生	Health Policy & Management
10	CONTEMP ISSUES-DENTAL PUBKIC HEALTH	1.5	研究生	Health Policy & Management
11	DECISION MODELS & MANAGEMENT	3	研究生	International and Public Affairs
12	DEVELOPMENT PRACTICE LAB	1	研究生	International and Public Affairs
13	DEVELOPMENT PRACTITIONER WORKSHOP	3	研究生	International and Public Affairs
14	DEVIANCE & SOCIAL CONTROL	4	本科	Sociology at Barnard
15	ECONOMICS OF MEDICAL TECHNOLOGY	3	研究生	Health Policy & Management
16	EMERGING MARKTS IN HEALTH CARE	1.5	研究生	Health Policy & Management
17	ENVIRONMENTAL HEALTH ECONOMICS	1.5	研究生	Health Policy & Management
18	EXTRACTIVE INDUST & SUSTAIN DEVELOPMENT	3	研究生	International and Public Affairs
19	FACT AND FICTION	4	本科	Sociology
20	GLOBAL FOOD SYSTEMS	3	研究生	International and Public Affairs

**公共事业管理（卫生政策与管理，公共事务，社会学）**

	课程名称	学分	课程程度	所属院系
21	GLOBAL HEALTH GOVERNANCE	1.5	研究生	Health Policy & Management
22	GLOBAL HEALTH PRACTICE	3	研究生	International and Public Affairs

23	GOVERNING THE 21ST CENT CITY	3	研究生	International and Public Affairs
24	HEALTH POLICY & POLITICAL ANALYSIS	3	研究生	Health Policy & Management
25	HEALTHCARE FINANCE	3	研究生	Health Policy & Management
26	HEALTHCARE IN THE ARTS & MEDIA	1.5	研究生	Health Policy & Management
27	HEALTHCARE MARKETING	1.5	研究生	Health Policy & Management
28	HEALTH CARE ACCOUNTING&BUDGETIN	3	研究生	Health Policy & Management
29	HEALTH POLICY IN GLOBAL CONTEXT	1.5	研究生	Health Policy & Management
30	HEALTH WORKFORCE:POLICY IMPLICITN	1.5	研究生	Health Policy & Management
31	HOUSING POLICY & THE CITY	3	研究生	International and Public Affairs
32	HUMAN ECOLOGY & SUSTAINABLE DEVELOPMENT	3	研究生	International and Public Affairs
33	IMMIGRATION & AMERICAN SOCIETY	3	本科	Sociology
34	INDIVIDUAL SENIOR PROJECTS	4	本科	Sociology
35	INEQUALITIES U.S. LAW&SOCIETY	4	本科	Sociology at Barnard
36	INNOVATIONS IN HEALTH POLICY	1.5	研究生	Health Policy & Management
37	INTRODUCTN TO HEALTH ECONOMICS	3	研究生	Health Policy & Management
38	LEADING & SUSTAINING CHANGE	1.5	研究生	International and Public Affairs
39	LOCAL & GLOBAL CORRUPTION	3	研究生	International and Public Affairs
40	MENTAL HEALTH POLICY	3	研究生	Health Policy & Management
41	METHODS FOR SOCIAL RESEARCH	4	本科	Sociology
42	OPERATIONS MANAGEMENT	3	研究生	International and Public Affairs

公共事业管理（卫生政策与管理，公共事务，社会学）

课程名称	学分	课程程度	所属院系
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43	POLITICS & POLICIES:PUBLIC PENSION FUNDS	1.5	研究生	International and Public Affairs
44	PRACTICAL PROBLEMS-URBAN POLIT	3	研究生	International and Public Affairs
45	PROFESSIONAL DEVELOP SEM III: PRACTICUM	0.5	研究生	Health Policy & Management
46	PROFESSIONAL DEVELOPMENT SEMINAR II	0.5	研究生	Health Policy & Management
47	PROJECT MANAGEMENT	3	研究生	International and Public Affairs
48	PUB HLTH CONCEPTS FOR MANAGERS	3	研究生	Health Policy & Management
49	PUBLIC HEALTH LAW	3	研究生	Health Policy & Management
50	PUBLIC/PRIVATE PARTNERSHIPS FOR NONPROFI	1.5	研究生	International and Public Affairs
53	SEXUALITY & SOCIETY	3	本科	Sociology
54	SOCIAL OF AFRICAN AMERICAN LIFE	3	本科	Sociology at Barnard
55	SOCIAL AND BEHAVIORAL SCIENCE	1.5	研究生	Health Policy & Management
56	SOCIAL STATISTICS	3	本科	Sociology
57	SOCIAL THEORY	3	本科	Sociology
58	SOCIOLOGY OF CULTURE	4	本科	Sociology at Barnard
59	SOCIOLOGY OF MEDICINE	3	本科	Sociology at Barnard
60	SOCIOLOGY OF REPRODUCTION	3	本科	Sociology at Barnard
61	SOCIOLOGY OF WORK & GENDER	3	本科	Sociology
62	STRATEGIC ISSUES IN HEALTHCARE QUALITY	1.5	研究生	Health Policy & Management
63	STRATEGIC MANAGEMENT	3	研究生	Health Policy & Management
64	TECH,INNOVATION & ECON DEVELOP IN CITIES	1.5	研究生	International and Public Affairs
65	THE BUSINESS OF HEALTHCARE	1.5	研究生	Health Policy & Management

公共事业管理（卫生政策与管理，公共事务，社会学）

课程名称	学分	课程程度	所属院系
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66	THE CHANGING AMERICAN FAMILY	3	本科	Sociology
67	THE SOCIAL WORLD	3	本科	Sociology
68	TRANSFORM ECON MODELS HLTH CARE	1.5	研究生	Health Policy & Management
69	TRANSFORMATION AGRI & RURAL	3	研究生	International and Public Affairs
70	TUTORIAL HEALTH POLICY & MANAGEMENT	1.5	研究生	Health Policy & Management

## 哥伦比亚大学备选课程目录

### 能源与动力工程

课程名称		学分	课程程度	所属院系
1	ADVANCED TOPIC:ROBOTICS	3	研究生	Mechanical Engineering
2	ADVANCED MACHINE DYNAMICS	3	研究生	Mechanical Engineering
3	ADVANCED MECHANICS OF FLUIDS	3	研究生	Mechanical Engineering
4	ADVANCED THERMODYNAMICS	3	本科/研究生	Mechanical Engineering
5	APPLIED ELECTROMAGNETISM	3	本科	Applied Physics and Applied Mathematics
6	APPLIED MATHEMATICS II	3	本科	Applied Physics and Applied Mathematics
7	AUTOMOTIVE DYNAMICS	3	本科/研究生	Mechanical Engineering
8	COMPUT MATH:INTRO-NUMERCL MATHEMATICS	3	本科/研究生	Applied Physics and Applied Mathematics
9	COMPUTER AIDED MANUFACTURING	3	本科/研究生	Mechanical Engineering
10	COMPUTER GRAPHICS & DESIGN	3	本科	Mechanical Engineering
11	CRYSTALLOGRAPHY	3	本科/研究生	Applied Physics and Applied Mathematics
12	CURRICULAR PRACTICAL TRAINING	1	本科/研究生	Mechanical Engineering
13	DESIGN PROJECT	3	本科	Applied Physics and Applied Mathematics
14	DIAGNOSTIC RADIOLOGY PHYSICS	3	研究生	Applied Physics and Applied Mathematics
15	DIGITAL CONTROL SYSTEMS	3	本科/研究生	Mechanical Engineering

16	DISCRETE TIME MODELS IN FINANC	3	本科	Mathematics
17	ELEMENTS OF MATERIALS SCIENCE	3	本科	Applied Physics and Applied Mathematics
18	ENERGY DYNAMICS OF GREEN BLDGS	3	本科/研究生	Mechanical Engineering
19	ENERGY SOURCES AND CONVERSION	3	本科/研究生	Mechanical Engineering

### 能源与动力工程

课程名称		学分	课程程度	所属院系
20	ENERGY/PART-BEAM PROCES-MATRLS	3	研究生	Applied Physics and Applied Mathematics
21	ENGINEERING DESIGN	3	本科	Mechanical Engineering
22	GEOMETRICAL MODELING	3	本科/研究生	Mechanical Engineering
23	GEOPHYSICAL FLUID DYNAMICS	3	本科/研究生	Applied Physics and Applied Mathematics
24	HEAT TRANSFER	3	本科	Mechanical Engineering
25	HONORS TUTORIAL IN MECHANICAL ENGINEERING	3	本科	Mechanical Engineering
26	INTRO TO AERODYNAMICS	3	本科/研究生	Mechanical Engineering
27	INTRO TO PLASMA PHYSICS	3	本科/研究生	Applied Physics and Applied Mathematics
28	INTRO TO QUANTUM MECHANICS	3	本科	Applied Physics and Applied Mathematics
29	INTRO-HUMANS IN SPACE FLIGHT	3	本科/研究生	Mechanical Engineering
30	LAB IN MATERIALS SCIENCE	3	本科	Applied Physics and Applied Mathematics
31	LASER PHYSICS	3	本科/研究生	Applied Physics and Applied Mathematics
32	LINEAR ALGEBRA	3	本科	Mathematics
33	MASTERS THESIS	1—3	研究生	Mechanical Engineering
34	MATERIALS SCIENCE LABORATORY	1—3	本科/研究生	Applied Physics and Applied Mathematics
35	MATERIALS SCIENCE REPORTS	0—6	研究生	Applied Physics and Applied Mathematics
36	MATERIALS/PROCESSES IN MANUFAC	3	本科	Mechanical Engineering

37	MECH BEHAVIOR OF MATERIALS	3	本科/研究生	Applied Physics and Applied Mathematics
38	MECH OF PROPULSION	3	本科/研究生	Mechanical Engineering
39	MECHANICAL ENGINEERING LAB II	3	本科	Mechanical Engineering
40	MECHANICS	4	本科	Mechanical Engineering

### 能源与动力工程

课程名称		学分	课程程度	所属院系
41	MECHANICS OF FLUIDS	3	本科/研究生	Mechanical Engineering
42	MECHATRONICS & EMBEDDED MICRO	3	本科/研究生	Mechanical Engineering
43	NANOTECHNOLOGY	3	本科/研究生	Applied Physics and Applied Mathematics
44	NUMBER THEORY AND CRYPTOGRAPHY	3	本科	Mathematics
45	ORDINARY DIFFERENTIAL EQUATION	3	本科	Mathematics
46	PARTIAL DIFFERENTIAL EQUATIONS	3	本科	Mathematics
47	PLASMA PHYSICS II	3	研究生	Applied Physics and Applied Mathematics
48	PROCESSING-CERAMICS & POLYMERS	3	本科	Applied Physics and Applied Mathematics
49	PROCESSING-METLS/SEMICONDUCTRS	3	本科	Applied Physics and Applied Mathematics
50	PROJECTS IN MECH ENGINEERING	1—3	本科	Mechanical Engineering
51	RADIATION THERAPY PHYSICS	3	研究生	Applied Physics and Applied Mathematics
52	RADIOBIOLOGY FOR MED PHYS	3	本科/研究生	Applied Physics and Applied Mathematics
53	RESEARCH PROJECT	1—6	研究生	Applied Physics and Applied Mathematics
54	REVIEW OF FUNDMNTLS MECE ENGR	1	本科	Mechanical Engineering
55	SELECTED TPCS IN MATERIALS SCI	3	研究生	Applied Physics and Applied Mathematics
56	SENIOR THESIS IN MATHEMATICS	4	本科	Mathematics
57	SPEC TOPICS IN APPLIED MATH	3	本科/研究生	Applied Physics and Applied Mathematics
58	SPEC TOPICS:MATERIAL SCI & ENGIN	3	本科/研究生	Applied Physics and Applied Mathematics

59	STRUCTRL ANALYSIS OF MATERIALS	3	本科/研究生	Applied Physics and Applied Mathematics
60	THE ART OF ENGINEERING	4	本科	School of Engineering
61	THERMO/KINETIC THRY/STAT MECH	3	本科	Applied Physics and Applied Mathematics

## 哥伦比亚大学备选课程目录

### 工业工程与操作研究

	课程名称	学分	课程程度	所属院系
1	INTRODUCTION TO ACCOUNTING & FINANCE	3	本科	Industrial Engineering and Operations Research
2	PRODUCTN-INVENTORY PLAN-CONTRL	4	本科	Industrial Engineering and Operations Research
3	INTRO PROBABILITY/STATISTICS	4	本科	Industrial Engineering and Operations Research
4	UNDERGRAD RESEARCH OR PROJECT	3	本科	Industrial Engineering and Operations Research
5	INTRO TO OR-DETERMINSTC MODELS	3	本科/研究生	Industrial Engineering and Operations Research
6	INTRO TO OR-STOCHASTIC MODELS	3	本科/研究生	Industrial Engineering and Operations Research
7	STUDIES IN OPERATIONS RESEARCH	3	本科/研究生	Industrial Engineering and Operations Research
8	SEMINAR IN HUMAN FACTORS DESIGN	3	本科/研究生	Industrial Engineering and Operations Research
9	APPLIED STATISTICAL MODELS	3	本科/研究生	Industrial Engineering and Operations Research
10	SIMULATION	3—4	本科/研究生	Industrial Engineering and Operations Research
11	PRODUCTION SCHEDULING	3	本科/研究生	Industrial Engineering and Operations Research
12	QUALITY CONTROL AND MANAGEMENT	3	本科/研究生	Industrial Engineering and Operations Research
13	PROJECT MANAGEMENT	3	本科/研究生	Industrial Engineering and Operations Research
14	SYSTEM ENGINEERING TOOLS/METHODS	3	本科/研究生	Industrial Engineering and Operations Research
15	THE LEAN LAUNCH PAD	3	本科/研究生	Industrial Engineering and Operations Research
16	DATA MINING	3	本科/研究生	Industrial Engineering and Operations Research

17	TOPICS IN OPERATIONS RESEARCH	3	本科/研究生	Industrial Engineering and Operations Research
18	APPLIED INTEGER PROGRAMMING	3	本科/研究生	Industrial Engineering and Operations Research
19	DYNAMIC PRICING	3	本科/研究生	Industrial Engineering and Operations Research
20	QUANTITATIVE RISK MANAGEMENT	3	本科/研究生	Industrial Engineering and Operations Research

### 工业工程与操作研究

课程名称		学分	课程程度	所属院系
21	DECISION MODELS AND APPLIC	3	本科/研究生	Industrial Engineering and Operations Research
22	SERVICE ENGINEERING	3	本科/研究生	Industrial Engineering and Operations Research
23	ASSET ALLOCATION	3	本科/研究生	Industrial Engineering and Operations Research
24	INTRO TO FINANCIAL ENGINEERING	3	本科/研究生	Industrial Engineering and Operations Research
25	MONTE CARLO SIMULATION METHODS	3	本科/研究生	Industrial Engineering and Operations Research
26	FINANCIAL ENGINEERING II	3	本科/研究生	Industrial Engineering and Operations Research
27	DATA ANALYSIS FOR FIN ENGIN	3	本科/研究生	Industrial Engineering and Operations Research
28	INTRO-IMPLIED VOLATILITY SMILE	3	本科/研究生	Industrial Engineering and Operations Research
29	TOPICS IN QUANTATIVE FINANCE	3	本科/研究生	Industrial Engineering and Operations Research
30	ALGORITHMIC TRADING	3	本科/研究生	Industrial Engineering and Operations Research
31	EXPERIMENTAL FINANCE	3	本科/研究生	Industrial Engineering and Operations Research
32	MASTERS RESEARCH OR PROJECT	1—3	研究生	Industrial Engineering and Operations Research
33	FIELDWORK	1—1.5	研究生	Industrial Engineering and Operations Research
34	OPTIMIZATION II	4.5	研究生	Industrial Engineering and Operations Research
35	CONVEX OPTIMIZATION	3	研究生	Industrial Engineering and Operations Research
36	STOCHASTIC MODELING II	4.5	研究生	Industrial Engineering and Operations Research
37	ADVANCED TOPICS IN IEOR	3	研究生	Industrial Engineering and Operations Research

## 哥伦比亚大学备选课程目录

### 数学

课程名称		学分	课程程度	所属院系
1	ALGEBRAIC NUMBER THEORY	4.5	本科/研究生	Mathematics
2	ALGEBRAIC TOPOLOGY II	4.5	本科/研究生	Mathematics
3	ANALYSIS AND OPTIMIZATION	3	本科	Mathematics
4	ANALYTIC NUMBER THEORY	3	本科/研究生	Mathematics
5	CALCULUS I	3	本科	Mathematics
6	CALCULUS II	3	本科	Mathematics
7	CALCULUS III	3	本科	Mathematics
8	CALCULUS IV	3	本科	Mathematics
9	COLLEGE ALGEBRA-ANLYTC GEOMTRY	3	本科	Mathematics
10	COMBINATORICS	3	本科	Mathematics
11	COMPLEX ANALYSIS/RIEMANN SURF	4.5	本科/研究生	Mathematics
12	COMPLEX VARIABLES	3	本科	Mathematics
13	CONFORMAL FIELD THEORY	4.5	研究生	Mathematics
14	DISCRETE TIME MODELS IN FINANC	3	本科	Mathematics
15	FOURIER ANALYSIS	3	本科/研究生	Mathematics
16	HONORS MATHEMATICS B	4	本科	Mathematics
17	INTRO TO ALGEBRAIC TOPOLOGY	3	本科/研究生	Mathematics
18	INTRO TO HIGHER MATHEMATICS	3	本科	Mathematics
19	INTRO TO MOD ALGEBRA II	3	本科/研究生	Mathematics

### 数学

课程名称		学分	课程程度	所属院系
20	INTRO TO MODERN ALGEBRA I	3	本科/研究生	Mathematics
21	INTRO TO THE MATH OF FINANCE	3	本科/研究生	Mathematics
22	INTRO-DIFFERENTIABLE MANIFOLDS	3	本科/研究生	Mathematics at Barnard
23	INTRO-MODERN ANALYSIS I	3	本科/研究生	Mathematics
24	INTRO-MODERN ANALYSIS II	3	本科/研究生	Mathematics
25	LIE GROUPS & REPRESENTATIONS	4.5	本科/研究生	Mathematics
26	LINEAR ALGEBRA	3	本科	Mathematics
27	MATH FINANCE PRACTITIONERS SEM	3	研究生	Mathematics
28	MATH MTHDS-FIN PRICE ANALYSIS	3	本科/研究生	Mathematics
29	MODERN GEOMETRY	4.5	本科/研究生	Mathematics
30	MULTI-ASSET PORTFOLIO MGMT	3	本科/研究生	Mathematics
31	NON-LINEAR OPTION PRICING	3	本科/研究生	Mathematics
32	NUMBER THEORY AND CRYPTOGRAPHY	3	本科	Mathematics
33	NUMERICAL METHODS IN FINANCE	3	研究生	Mathematics
34	ORDINARY DIFFERENTIAL EQUATION	3	本科	Mathematics
35	PARTIAL DIFFERENTIAL EQUATIONS	3	本科	Mathematics
36	PARTIAL DIFFERENTIAL EQUATIONS	4.5	研究生	Mathematics
37	PROBABILITY THEORY	3	本科/研究生	Mathematics
38	PROG FOR QUANT & COMP FINANCE	3	研究生	Mathematics
39	QUANTUM MECHANICS MATH	3	本科/研究生	Mathematics
40	REPRESENTATNS OF FINITE GROUPS	3	本科/研究生	Mathematics

## 数学

课程名称		学分	课程程度	所属院系
41	SENIOR THESIS IN MATHEMATICS	4	本科	Mathematics
42	TOPICS IN ALGEBRAIC GEOMETRY	4.5	本科/研究生	Mathematics
43	TOPICS IN AUTOMORPHIC FORMS	4.5	研究生	Mathematics
44	TOPICS IN NUMBER THEORY	4.5	研究生	Mathematics
45	TOPICS IN REPRESENTATION THEORY	4.5	研究生	Mathematics
46	UNDERGRADUATE SEMINARS II	3	本科	Mathematics
47	UNPAID INTERNSHIP	3	研究生	Mathematics

## 哥伦比亚大学备选课程目录

## 建筑

课程名称		学分	课程程度	所属院系
1	12 DIALOGICAL/POETIC STRATEGIES	3	研究生	Architecture, Planning and Preservation
2	ACOUSTICS	3	研究生	Architecture, Planning and Preservation
3	AMERICAN ARCH I	3	研究生	Architecture, Planning and Preservation
4	ARCH REPRESENTATION: PERCEPTION	4	本科	Architecture at Barnard
5	ARCH REPRESENTATION: ABSTRACTION	4	本科	Architecture at Barnard
6	ARCH: THE CONTEMPORARY	3	研究生	Architecture, Planning and Preservation
7	ARCHITECTURAL DAYLIGHTING	3	研究生	Architecture, Planning and Preservation
8	ARCHITECTURAL DESIGN II	4.5	本科	Architecture at Barnard
9	ARCHITECTURAL DRWG & REP II	3	研究生	Architecture, Planning and Preservation
10	ARCHITECTURAL PHOTOGRAPHY	1.5	研究生	Architecture, Planning and Preservation
11	ARCHITECTURAL TECHNOLOGY II	3	研究生	Architecture, Planning and Preservation

12	ARCHITECTURAL TECHNOLOGY V	3	研究生	Architecture, Planning and Preservation
13	BEYOND PROTOTYPE	1.5	研究生	Architecture, Planning and Preservation
14	CINEMATIC COMMUNICATION	1.5	研究生	Architecture, Planning and Preservation
15	COLLECTING ARCH TERRITORIES II	3	研究生	Architecture, Planning and Preservation
16	COLONIAL/POST COLONIAL ARCH	3	研究生	Architecture, Planning and Preservation
17	DESIGN FUTURES: NEW YORK CITY	3	本科	Architecture at Barnard
18	DESIGNING THROUGH WOOD	3	研究生	Architecture, Planning and Preservation
19	DEVELOPMENT OF PARIS	3	研究生	Architecture, Planning and Preservation

### 建筑

课程名称		学分	课程程度	所属院系
20	DIG DETAIN:SIMULATN & ANALYSIS	3	研究生	Architecture, Planning and Preservation
21	FAST PACE/SLOW SPACE	3	研究生	Architecture, Planning and Preservation
22	FUNDAMNTLS OF URB DIGITAL DES	3	研究生	Architecture, Planning and Preservation
23	GAP I:DESIGN + TYPOGRAPHY	3	研究生	Architecture, Planning and Preservation
24	GAP II: STRATEGIC IMAGES	3	研究生	Architecture, Planning and Preservation
25	HIST OF ARCHITECTURE II	3	研究生	Architecture, Planning and Preservation
26	HOLISTIC SKINS-INTETRATN-PERF	3	研究生	Architecture, Planning and Preservation
27	IMAGINING THE ULTRAREAL	1.5	研究生	Architecture, Planning and Preservation
28	INDEPENDENT STUDY	2—4	本科	Architecture at Barnard
29	INTRO-ARCH DESIGN/VIS CULTURE	3	本科	Architecture at Barnard
30	INTRODUCTION TO HOUSING	3	研究生	Architecture, Planning and Preservation
31	INTRO-GEOG INFO SYST-PLANNERS	3	研究生	Architecture, Planning and Preservation
32	JAPANESE URBANISM	3	研究生	Architecture, Planning and Preservation

33	LOCAL,GLOBAL,POST COLONIAL	3	研究生	Architecture,Planning and Preservation
34	NEGOTIATIONS FOR PLANNERS	3	研究生	Architecture,Planning and Preservation
35	NETWORK CITY	3	研究生	Architecture,Planning and Preservation
36	NEW SPACES OF HOUSING	3	研究生	Architecture,Planning and Preservation
37	PERCEPTIONS OF ARCHITECTURE	3	本科	Architecture at Barnard
38	PHYSICAL STRUCTURE OF CITIES	3	研究生	Architecture,Planning and Preservation
39	PLANNING FOR CLIMATE CHANGE	3	本科/研究生	Architecture,Planning and Preservation
40	POLITICS OF INT'L PLACEMAKING	3	研究生	Architecture,Planning and Preservation

### 建筑

课程名称		学分	课程程度	所属院系
41	POLIT-SPACE: CITIES,INST,SPACE	3	研究生	Architecture,Planning and Preservation
42	PUB FINANCING OF URBAN DEVEKOPMENT	3	研究生	Architecture,Planning and Preservation
43	PUB SPACE/RECOMBINANT URBANISM	3	研究生	Architecture,Planning and Preservation
44	REAL ESTATE FINANCE III	3	研究生	Architecture,Planning and Preservation
45	RESEARCHING RESEARCH	3	研究生	Architecture,Planning and Preservation
46	SEARCH: ADV ALGORITHMIC DESIGN	1.5	研究生	Architecture,Planning and Preservation
47	SENIOR SEMINAR	4	本科	Architecture at Barnard
48	SIMULATION AS THE ORIGIN	1.5	研究生	Architecture,Planning and Preservation
49	SPECIAL TOPICS IN ARCHITECTURE	3	本科	Architecture at Barnard
50	SUST. ZONING + LAND USE	3	研究生	Architecture,Planning and Preservation
51	SUSTAIN URBAN DEV INT'L PERSP	3	研究生	Architecture,Planning and Preservation
52	TECHNIQUES OF THE ULTRAREAL	1.5	研究生	Architecture,Planning and Preservation

53	THE ORDINARY	3	研究生	Architecture, Planning and Preservation
54	THE ORGANIZATIONAL COMPLEX	3	研究生	Architecture, Planning and Preservation
55	THE TOPOLOGICAL STUDY OF FORM	1.5	研究生	Architecture, Planning and Preservation
56	TRADITIONAL JAPANESE ARCHITECTURE	3	研究生	Architecture, Planning and Preservation
57	TRANS & LAND USE PLANNING	3	研究生	Architecture, Planning and Preservation
58	URBAN HISTORY I	3	研究生	Architecture, Planning and Preservation
59	URBAN PRAXIS: SOC THEORY ARCH	3	本科	Architecture at Barnard
60	URBANISM & UTOPIA	3	研究生	Architecture, Planning and Preservation
61	VDC & DIGITAL DOMAIN IN CONSTR	3	研究生	Architecture, Planning and Preservation

## 哥伦比亚大学备选课程目录

### 艺术（电影，视觉艺术，戏剧艺术）

课程名称		学分	课程程度	所属院系
1	ACTING LAB	3	本科	Theatre at Barnard
2	ADVANCED PRINTMAKING	3	本科	Visual Arts
3	ANALYSIS OF FILM LANGUAGE I	3	本科/研究生	Film
4	AUTEUR STUDY	3	本科/研究生	Film
5	BASIC DRAWING	3	本科	Visual Arts
6	BUSINESS OF TELEVISION	3	研究生	Film
7	CERAMICS I	3	本科	Visual Arts
8	CINEMA HIST I: BEGIN-1930	3	本科	Film
9	CINEMA HIST I: BEGIN-1930	3	本科/研究生	Film
10	CINEMA HIST IV: AFTER 1990	3	本科/研究生	Film
11	CINEMA HISTORY IV: AFTER 1990	3	本科	Film

12	CONCEPTS IN VIAR: PERFORMANCE	3	本科/研究生	Visual Arts
13	COSTUME DESIGN	3	本科	Theatre at Barnard
14	CRITICAL ISSUES IN ART II	3	本科/研究生	Visual Arts
15	CRITICAL ISSUES IN ART IV	3	本科/研究生	Visual Arts
16	DIRECTING LABORATORY	3	本科	Theatre at Barnard
17	DRAMA, THEATRE, AND THEORY	4	本科	Theatre at Barnard
18	DRAMATURGY	4	本科	Theatre at Barnard
19	DRAWING II	3	本科	Visual Arts

**艺术（电影，视觉艺术，戏剧艺术）**

课程名称		学分	课程程度	所属院系
20	FEATURE FILM FINANCING	3	研究生	Film
21	FIGURE DRAWING I	3	本科	Visual Arts
22	FILM PRODUCING: CASE STUDIES	3	研究生	Film
23	HISTORY&PRACTICE OF DIRECTING	3	本科	Theatre at Barnard
24	INTRODUCTION TO FILM & MEDIA STUDIES	3	本科	Film
25	LAB IN FICTION FILMMAKING	3	本科	Film
26	LAB IN NONFICTION FILMMAKING	3	本科	Film
27	LABORATORY IN SCREENWRITING	3	本科	Film
28	LIGHTING DESIGN	3	本科	Theatre at Barnard
29	MAJOR SCREENWRITERS	3	本科/研究生	Film
30	NARRATIVE STRAT-SCREENWRITING	3	本科	Film
31	NEW MEDIA PRODUCING	3	研究生	Film
32	NEW YORK THEATRE	3	本科	Theatre at Barnard
33	PAINTING I	3	本科	Visual Arts

34	PAINTING II	3	本科	Visual Arts
35	PAINTING III	3	本科	Visual Arts
36	PHOTOGRAPHY: PHOTO I	3	本科	Visual Arts
37	PLAY DEVELOPMENT	3	本科	Theatre at Barnard
38	PRE-PROD OF A MOTION PICTURE	3	研究生	Film
39	PRINTMAKING I: INTAGLIO	3	本科	Visual Arts
40	PRINTMAKING II: INTAGLIO	3	本科	Visual Arts

### 艺术（电影，视觉艺术，戏剧艺术）

课程名称		学分	课程程度	所属院系
41	PRINTMAKING: DRAWING INTO PRINT	3	本科/研究生	Visual Arts
42	PROBLEMS IN DRAWING	3	本科	Visual Arts
43	PRODUCING ACROSS MEDIA	3	研究生	Film
44	PRODUCING THE SHORT	1.5	研究生	Film
45	PRO-SEMINAR IN FILM THEORY	3	研究生	Film
46	REHEARSAL AND PERFORMANCE	1—3	本科	Theatre at Barnard
47	SCENE LAB	3	本科	Theatre at Barnard
48	SCRIPT TO SCREEN	1.5	研究生	Film
49	SCULPTURE I	3	本科	Visual Arts
50	SCULPTURE II	3	本科	Visual Arts
51	SCULPTURE III	3	本科	Visual Arts
52	SENIOR THESIS: PERFORMANCE	4	本科	Theatre at Barnard
53	SENIOR THESIS: RESEARCH	4	本科	Theatre at Barnard
54	THE BUSINESS OF FILM	3	研究生	Film

55	THE DOCUMENTARY TRADITION	3	本科/研究生	Film
56	TOPICS IN AMERICAN CINEMA	3	本科	Film
57	TOPICS IN WORLD CINEMA	3	本科/研究生	Film
58	TRADITIONAL INDIAN PERFORMNCE	4	本科	Theatre at Barnard
59	VISITING CRITIC I	2	本科	Visual Arts
60	WESTERN THEATRE TRADITIONS	3	本科	Theatre at Barnard
61	WORLD FILM MELODRAMA	3	本科/研究生	Film

## 哥伦比亚大学备选课程目录

### 统计

	课程名称	学分	课程程度	所属院系
1	ADVANCED DATA ANALYSIS	3	本科/研究生	Statistics
2	APPL STATISTICAL METHODS	3	本科	Statistics
3	APPLIED DATA MINING	3	本科	Statistics
4	APPLIED DATA MINING	3	研究生	Statistics
5	APPLIED PROB & RISK SEMINAR	1	研究生	Statistics
6	BAYESIAN STATISTICS	3	本科/研究生	Statistics
7	COMPUTATIONAL STATISTICS	4	研究生	Statistics
8	DATA MINING	3	本科/研究生	Statistics
9	ELEMENTRY STOCHASTIC PROCESSES	3	本科/研究生	Statistics
10	EXPLORATORY DATA ANALYSIS/VISUAL	3	研究生	Statistics
11	FINANCIAL CRISES	3	本科/研究生	Economics
12	FINANCIAL ECONOMICS	3	本科	Economics
13	GENERALIZED LINEAR MODELS	3	本科/研究生	Statistics

14	GRADUATE INDEPENDENT RESEARCH	3	研究生	Statistics
15	INDIVIDUAL RESEARCH	3	本科	Statistics
16	INTERMEDIATE MACROECONOMICS	3	本科	Economics
17	INTERMEDIATE MICROECONOMICS	3	本科	Economics
18	INTERMEDTE MACROECONOMC THEOR	4	本科	Economics at Barnard
19	INTERMEDTE MICROECONOMC THEORY	4	本科	Economics at Barnard
20	INTERNATIONAL MONEY AND FINANCE	3	本科	Economics at Barnard

### 统计

课程名称		学分	课程程度	所属院系
21	INTERNATIONAL TRADE	3	本科/研究生	Economics
22	INTRODUCTION TO ECONOMIC REASONING	3	本科	Economics at Barnard
23	INTRODUCTION TO STATISTICAL INFERENCE	3	本科	Statistics
24	INTRODUCTION TO STATISTICAL REASONING	3	本科	Statistics
25	INTRODUCTION TO DATA SCIENCE	3	本科/研究生	Statistics
26	INTRODUCTION TO ECONOMETRICS	3	本科	School of Economics
27	INTRODUCTION TO ECONOMIC REASONING	3	本科	Continuing Education
28	INTRODUCTION TO FINANCE	3	研究生	Continuing Education
29	INTRODUCTION TO MARKETING	3	本科	Continuing Education
30	INTRODUCTION TO STATISTICAL REASONING	3	本科	Continuing Education
31	INTRODUCTION TO STATISTICS	3	本科	Statistics
32	LINEAR REGRESSION MODELS	3	本科/研究生	Statistics
33	MARKETING STRATEGY	3	本科	Continuing Education
34	MATH METHODS FOR ECONOMICS	4	本科	Economics at Barnard
35	MICROECONOMIC ANALYSIS I	4	研究生	Economics
36	MONEY AND BANKING	3	本科	Economics at Barnard
37	MULTIVARIATE STAT INFERENCE	3	本科/研究生	Statistics
38	ORAL COMMUNICATIONS: BUSINESS	3	本科	Continuing Education
39	POLITICAL ECONOMY	3	本科/研究生	Economics
40	PRINCIPLES OF ECONOMICS	4	本科	Economics

41	PROBABILITY	3	本科/研究生	Statistics
42	PROBABILITY THEORY II	4	研究生	Statistics

### 统计

课程名称	学分	课程程度	所属院系	
43	PUBLIC ECONOMICS	3	本科/研究生	Economics
44	STAT MODELLNG/DATA ANALYSIS II	4	研究生	Statistics
45	STATISTICAL CONSULTING	2	研究生	Statistics
46	STATISTICAL INFERENCE	3	本科/研究生	Statistics
47	STATISTICAL MACHINE LEARNING	3	本科/研究生	Statistics
48	STATISTICAL METHODS IN FINANCE	3	本科/研究生	Statistics
49	STATISTICAL INFERENCE THEORY II	4	研究生	Statistics
50	STOCHASTIC PROCESSES-APPLICTNS I	3	研究生	Statistics
51	STOCHASTIC METHODS IN FINANCE	3	研究生	Statistics
52	STOCHASTIC PROCESSES FOR FIN	3	本科/研究生	Statistics
53	SURVIVAL ANALYSIS	3	本科/研究生	Statistics
54	THEORY OF INTEREST	3	研究生	Statistics
55	TIME SERIES ANALYSIS	3	本科/研究生	Statistics
56	TOPICS IN ADVANCED PROBABILITY	3	研究生	Statistics
57	TOPICS IN ADVANCED STATISTICS	3	研究生	Statistics
58	TOPICS IN STOCHASTIC ANALYSIS	4.5	研究生	Mathematics
59	TRUTH IN DATA: MACH LEARN	3	研究生	Computer Science
60	UNPAID INTERNSHIP	4	研究生	Statistics

### 美国哥伦比亚大学(CU)

#### 工业设计

课程名称	学分	课程程度	所属院系	
2	PRODUCTN-INVENTORY PLAN-CONTRL	4	本科	Industrial Engineering and Operations Research
3	INTRO PROBABILITY/STATISTICS	4	本科	Industrial Engineering and Operations Research
4	UNDERGRAD RESEARCH OR PROJECT	3	本科	Industrial Engineering and Operations Research
5	INTRO TO OR-DETERMINSTC MODELS	3	本科/研究生	Industrial Engineering and Operations Research
6	INTRO TO OR-STOCHASTIC MODELS	3	本科/研究生	Industrial Engineering and Operations Research
7	STUDIES IN OPERATIONS RESEARCH	3	本科/研究生	Industrial Engineering and Operations Research
8	SEMINAR IN HUMAN FACTORS DESIGN	3	本科/研究生	Industrial Engineering and Operations Research
9	APPLIED STATISTICAL MODELS	3	本科/研究生	Industrial Engineering and Operations Research
10	SIMULATION	3—4	本科/研究生	Industrial Engineering and Operations Research
11	PRODUCTION SCHEDULING	3	本科/研究生	Industrial Engineering and Operations Research
12	QUALITY CONTROL AND MANAGEMENT	3	本科/研究生	Industrial Engineering and Operations Research
13	PROJECT MANAGEMENT	3	本科/研究生	Industrial Engineering and Operations Research
14	SYSTEM ENGINEERING TOOLS/METHODS	3	本科/研究生	Industrial Engineering and Operations Research
15	THE LEAN LAUNCH PAD	3	本科/研究生	Industrial Engineering and Operations Research
16	DATA MINING	3	本科/研究生	Industrial Engineering and Operations Research

17	TOPICS IN OPERATIONS RESEARCH	3	本科/研究生	Industrial Engineering and Operations Research
18	APPLIED INTEGER PROGRAMMING	3	本科/研究生	Industrial Engineering and Operations Research
19	DYNAMIC PRICING	3	本科/研究生	Industrial Engineering and Operations Research
20	QUANTITATIVE RISK MANAGEMENT	3	本科/研究生	Industrial Engineering and Operations Research
21	DECISION MODELS AND APPLIC	3	本科/研究生	Industrial Engineering and Operations Research
22	SERVICE ENGINEERING	3	本科/研究生	Industrial Engineering and Operations Research
23	ASSET ALLOCATION	3	本科/研究生	Industrial Engineering and Operations Research
24	INTRO TO FINANCIAL ENGINEERING	3	本科/研究生	Industrial Engineering and Operations Research
25	MONTE CARLO SIMULATION METHODS	3	本科/研究生	Industrial Engineering and Operations Research
26	FINANCIAL ENGINEERING II	3	本科/研究生	Industrial Engineering and Operations Research
27	DATA ANALYSIS FOR FIN ENGIN	3	本科/研究生	Industrial Engineering and Operations Research
28	INTRO-IMPLIED VOLATILITY SMILE	3	本科/研究生	Industrial Engineering and Operations Research
29	TOPICS IN QUANTATIVE FINANCE	3	本科/研究生	Industrial Engineering and Operations Research
30	ALGORITHMIC TRADING	3	本科/研究生	Industrial Engineering and Operations Research
31	EXPERIMENTAL FINANCE	3	本科/研究生	Industrial Engineering and Operations Research
32	MASTERS RESEARCH OR PROJECT	1—3	研究生	Industrial Engineering and Operations Research
33	FIELDWORK	1—1.5	研究生	Industrial Engineering and Operations Research
34	OPTIMIZATION II	4.5	研究生	Industrial Engineering and Operations Research
35	CONVEX OPTIMIZATION	3	研究生	Industrial Engineering and Operations Research
36	STOCHASTIC MODELING II	4.5	研究生	Industrial Engineering and Operations Research
37	ADVANCED TOPICS IN IEOR	3	研究生	Industrial Engineering and Operations Research

## 哥伦比亚大学 (CU)

### 食品科学与工程

课程名称		学分	课程程度	所属院系
1	GENERAL CHEMISTRY I	2-4	本科	Chemistry at Columbia College
2	ADVANCED CHEMICAL ENGINEERING THERMODYNAMICS	3	本科	Chemical Engineering
3	ADVANCED CHEMICAL KINETICS	3	本科	Chemical Engineering
4	ADVANCED ORGANIC CHEMISTRY	4.5	本科	Chemistry at Columbia College
5	ANALYSIS OF CHEMICAL ENGINEERING	3	本科	Chemical Engineering
6	BIOCHEMICAL ENGINEERING	3	本科	Chemical Engineering
7	BIOCHEMISTRY	3	本科	Chemistry at Columbia College
8	BIOCHEMISTRY	3	本科	Biological Sciences at Barnard College
9	BIOCHEMISTRY LABORATORY TECHNIQ	5	本科	Chemistry at Barnard College

10	BIOCHEMISTRY, I: STRUCTURE AND MET	4	本科	Chemistry at Columbia College
11	BIOLOGICAL CHEMISTRY	3	本科	Chemistry at Barnard College
12	CHEMICAL BIOLOGY	2.5	本科	Chemistry at Columbia College
13	CHEMICAL BIOLOGY	4	本科	Biological Sciences at Barnard College
14	CHEMICAL ENGIN RES METHODOLOGY	1	本科/研究生	Chemical Engineering
15	CHEMICAL ENGINEERING	0-6	本科	Chemical Engineering
16	CHEMICAL ENGINEERING CONTROL	2	本科	Chemical Engineering
17	CHEMICAL PROBLEM SOLVING	3	本科	Chemistry at Barnard College
18	CHEMICAL PROCESS DEVELOPMENT	3	本科	Chemical Engineering
19	ENGINEERING SEPARATIONS	3	本科	Chemical Engineering
20	ESSENTIALS OF CHEMICAL ENGINEERIN	3	本科	Chemical Engineering
21	ESSENTIALS OF CHEMICAL ENGINEERIN	3	本科	Chemical Engineering
22	GENERAL CHEMISTRY I	1.5	本科	Chemistry at Columbia College
23	GENERAL CHEMISTRY LABORATORY	3	本科	Chemistry at Columbia College
24	INORGANIC CHEMISTRY	4.5	本科	Chemistry at Columbia College
25	INTENSIVE ORGANIC CHEMISTRY I	3.5	本科	Chemistry at Columbia College
26	INTENSIVE ORGANIC CHEMISTRY LABOF	2	本科	Chemistry at Columbia College
27	INTRODUCTION BIOLOGI T. BIOCHEMISTRY, GENETICS & MOLECULAR P:OLOGY	4	本科	Biological Sciences at Barnard College
28	BIOLOGY, DEVELOPMENT & PHYSIOLOGY	4	本科	Biological Sciences at Barnard College
29	INTRODUCTION TO CHEMICAL ENGINEE	3	本科	Chemical Engineering
30	ORGANIC CHEMISTRY I	3	本科	Chemistry at Columbia College
31	ORGANIC CHEMISTRY II	3	本科	Chemistry at Barnard College
32	ORGANIC CHEMISTRY LABORATORY I	1.5	本科	Chemistry at Columbia College
33	PHYSICAL AND ANALYTICAL CHEMISTRY LABORATORY I	4	本科	Chemistry at Columbia College
34	PHYSICAL CHEMISTRY I	4	本科	Chemistry at Columbia College
35	PRINCIPLES OF GENOMIC TECHNOLOGY	3	本科	Chemical Engineering
36	PROBLEMS IN CHEMISTRY	2	本科	Chemistry at Barnard College
37	PROCESS & PRODUCT DESIGN I	4	本科	Chemical Engineering
38	PROTEIN ENGINEERING	3	本科/研究生	Chemical Engineering
39	PUMPKIN PIE TO CSI: CHENISTRY IN EVE	1	本科	Chemistry at Barnard College
40	QUANTITATIVE ANALYSIS	3	本科	Chemistry at Barnard College
41	QUANTUM CHEMISTRY	3	本科	Chemistry at Barnard College
42	SENIOR SEMINAR IN CHENICAL RESEAR	2	本科	Chemistry at Columbia College
43	STATISTICAL MECHANICS	4.5	本科	Chemistry at Columbia College
44	SUPERVISED INDEPENDENT RESEARCH	4	本科	Chemistry at Columbia College
45	SYNTHETIC METHODS IN ORGANIC CHE	4.5	本科	Chemistry at Columbia College
46	TRANSPORT PHENOMENA I	3	本科	Chemical Engineering