GENERAL EDUCATION APPROVED COURSE SUBSTITUTION LISTS

Only students approved for a substitution by the Course Substitution Committee (https://curricula.unc.edu/course-substitution-petition-process/) may use the below listed courses to fulfill global language or quantitative General Education requirements. The below lists were approved effective fall 2023. Students approved for a course substitution prior to fall 2023 may use courses from this list in addition to their originally approved course list. All students approved for a substitution may continue to use courses approved for the applicable requirement to fulfill the requirement in addition to any of the below substitutions.

Quantitative Substitution

For students following the IDEAs in Action General Education curriculum (https://catalog.unc.edu/undergraduate/ideas-in-action/), this substitution list applies to the Focus Capacity. Quantitative Reasoning (FC-QUANT (https://catalog.unc.edu/undergraduate/ideas-in-action/quantitative/)) requirement. Courses used for substitution will follow the overlap rules for Focus Capacity courses as outlined in the IDEAs in Action General Education curriculum (https://catalog.unc.edu/undergraduate/ideas-in-action/).

For students following the Making Connections General Education curriculum, this substitution list applies to the Quantitative Reasoning (QR) and Quantitative Intensive (QI) requirements. In addition to the substitution courses listed below, approved students following the Making Connections General Education curriculum may use any QI course to fulfill the QR requirement and may use any FC-QUANT (https://catalog.unc.edu/undergraduate/ideas-in-action/quantitative/) course to fulfill either QR or QI (see lists at the end of this page (p. 6)).

Students may request an adjustment to which course(s) are being used as a substitution if they would prefer to retain a General Education credit the course is approved to fulfill which cannot overlap with substitution. They can do so by contacting the course evaluation coordinator (https://curricula.unc.edu/staff-contacts/) in the Office of Undergraduate Curricula.

Quantitative Substitution Course List

Code	Title	Hours
ANTH 220	Principles of Archaeology	3
COMP 126	Practical Web Design and Development for Everyone	3
EDUC 408	Research Methods in Human Development ¹	3
GEOG 50	First-Year Seminar: Mountain Environments	4 3
GEOG 110	The Blue Planet: An Introduction to Earth's Environmental Systems	3
GEOG 111	Weather and Climate	3
GEOG 115	Maps: Geographic Information from Babylon to Google	3
GEOG 230	The World at Eight Billion	3
GEOG 269	Human-Environment Interactions in the Galapagos Islands	3

GEOG 391	Quantitative Methods in Geography	3
GEOG 412	Synoptic Meteorology	3
GEOG 414	Climate Change	3
GEOG/ENEC 437	Social Vulnerability to Climate Change	3
GEOG 441	Introduction to Watershed Systems	3
GEOG/ENEC 451	Population, Development, and the Environment	3
GEOG/PLAN 491	Introduction to GIS	3
GEOG 544	Geographic Information Systems for Impact Evaluation and Health Studies	3
INLS 151	Retrieving and Analyzing Information	3
LING 101	Introduction to Language H	3
LING 200	Phonology	3
LING 201	Syntax	3
LING 427	Morphology	3
MUSC 121	Fundamentals of Tonal Music I	3
MUSC 239	Introduction to Music Technology	3

H Honors version available. An honors course fulfills the same requirements as the nonhonors version of that course. Enrollment and GPA restrictions may apply.

Global Language Substitution

For students following the IDEAs in Action General Education curriculum (https://catalog.unc.edu/undergraduate/ideas-in-action/), this substitution list applies to the Global Language (GLBL-LANG (https://catalog.unc.edu/undergraduate/ideas-in-action/global-language/)) requirement. GLBL-LANG approved courses will follow the overlap rules as outlined in the IDEAs in Action General Education curriculum (https://catalog.unc.edu/undergraduate/ideas-in-action/). Courses used as a GLBL-LANG substitution course may overlap with one or more of the following Gen Ed requirements: FY-Seminar/FY-Launch, Research and Discovery, High-Impact Experience, Communication Beyond Carolina.

For students following the Making Connections General Education curriculum, this substitution list applies to the Foreign Language (FL) requirement. Courses used for substitution may not overlap with any other General Education requirements, as FL is a Foundations requirement.

Students may request an adjustment to which course(s) are being used as a substitution if they would prefer to retain a General Education credit the course is approved to fulfill which cannot overlap with substitution. They can do so by contacting the course evaluation coordinator (https://curricula.unc.edu/staff-contacts/) in the Office of Undergraduate Curricula.

Each student is required to take 1–3 substitution courses. The number of courses required is based on course and placement credit already earned at the time of approval and will be stated in the student's approval letter.

Global Language Substitution List

Code	Title	Hours
AAAD 201	introduction to African Literature	3
AAAD 421	introduction to the Languages of Africa	3

¹ Course added effective fall 2023.

AMST 246	Indigenous Storytelling: Oral, Written, and Visual Literatures of Native America	3
ANTH/FOLK 130	Anthropology of the Caribbean	3
ANTH/LING 138	Linguistic Anthropology	3
ANTH/ENEC 191	Peoples of Siberia	3
ANTH 206	American Indian Societies	3
ANTH 232	Ancestral Maya Civilizations H	3
ANTH/ASIA 330	Melancholy Japan: Myth, Memory, and Everyday Life	3
ANTH/FOLK 340	Southern Styles, Southern Cultures	4
ANTH/FOLK/RELI 342	African-American Religious Experience	3
ANTH 343/ AAAD 319/ ARTH 353	Africa and Masks	3
ANTH 360	Latin American Economy and Society	3
ANTH 361	Community in India and South Asia	3
ANTH 406	Native Writers	3
ANTH 454	The Archaeology of African Diasporas	3
ARAB 150	Introduction to Arab Cultures ¹	3
ARAB 151	Arabic Literature through the Ages 1	3
ARAB 211	Arab Comics 1	3
ARAB/ANTH 214	Medicine in the Arab World ¹	3
ARAB 255	Arab World Photography 1	3
ARAB 337	Borders and Walls in the Arab World ¹	3
ARAB/ANTH 354		3
,	Everyday Lives in the Middle East: Anthropological Perspectives	
ARAB/ANTH 432	Science and Society in the Middle East 1	3
ARAB 434	Modern Arabic Literature in Translation	3
ARAB 453	Film, Nation, and Identity in the Arab World ¹	3
ASIA/WGST 127	iranian Women Writers 1	3
ASIA 150	Asia: An Introduction 1	3
ASIA 152	Survey of South Asian Cultural History 1	3
ASIA/WGST 167	Gender, Sexuality, and Social Justice in South	3
ASIA 211	The Silk Road: Markets, Metaphysics, and Music 1	3
ASIA 229	Breakdancers, Vocaloids, and Gamers: East Asian Youth Cultures 1	3
ASIA 231	Bollywood Cinema ¹	3
ASIA/CMPL 258	Iranian Prison Literature ¹	3
ASIA/CMPL 261	india through Western Eyes ¹	3
ASIA 262		3
	Nation, Film, and Novel in Modern India	
ASIA 350/ AMST 352	The Asian American Experience ¹	3
ASIA/JWST 358	Religion and Tradition in Israeli Cinema, TV, and Literature 1	3
ASIA/CMPL 359	Literary Diasporas of the Middle East ¹	3

ASIA/RELI 383	The Mahabharata: Remembered and ReimaginedExperiential ¹	3
ASIA/JWST/ PWAD 425	Beyond Hostilities: Israeli-Palestinian Exchanges and Partnerships in Film, Literature, and Music ¹	3
ASIA/PWAD 427/ CMPL 527	Cold War Culture in East Asia: Transnational and Intermedial Connections ¹	3
ASIA 435/ CMPL 535/ PWAD 435	The Cinemas of the Middle East and North Africa 1	3
ASIA/JWST 436	Language, Exile, and Homeland in Zionist Thought and Practice 1	3
ASIA/CMPL 442	Postcolonial Literature of the Middle East ¹	3
ASIA 522	Beauty and Power in the Classical Indian World	3
CHIN 150	Introduction to Chinese Civilization 1	3
CHIN/CMPL 238	From Martial Arts to Street Dance: Rebellion with Chinese Characteristics 1	3
CHIN/CMPL 247	Indigenous Spiritualities in Literatures of China and Taiwan ^{1, H}	3
CHIN 252	Introduction to Chinese Culture through Narrative ¹	3
CHIN 346	History as Fiction or Fiction as History? Early Chinese History in Film and Literature ¹	3
CHIN 356	Chinese Environmental Literature 1	3
CHIN 361	Chinese Traditional Theater 1	3
CHIN 463	Narrative Ethics in Modern China ¹	3
CHIN 475	Confucianism: Origin, History, and Contemporary Relevance 1	3
CHIN 476	Daoism: Origin, History, and Contemporary Relevance ¹	3
CHIN/CMPL/ WGST 480	Queering China ¹	3
CHIN/CMPL 545	Chinese Science Fiction 1	3
CHIN 551	Chinese Poetry in Translation	3
CLAR 120	Ancient Mediterranean, Egyptian, and Near Eastern Archaeology H	3
CLAS 121	The Greeks ^H	3
CLAS 122	The Romans ^H	3
CLAS 126	Medical Word Formation and Etymology	3
CLAS 131	Classical Mythology H	3
CLAS 263	Athletics in the Greek and Roman Worlds ^H	3
CMPL 120	Great Books I: Epic and Lyric Traditions	3
CMPL 122	Great Books I: Visual Arts and Literature from Antiquity to 1750 H	3
CMPL 123	Great Books I: Politics and Literature from Antiquity to 1750	3
CMPL 124	Great Books I: Science and Literature from Antiquity to 1750	3

CMPL 130	Great Books II H	3
CMPL 454	Literature of the Continental Renaissance in Translation H	3
CMPL 470	Concepts and Perspectives of the Tragic	3
CMPL 472	The Drama from Ibsen to Beckett	3
COMM 113	Public Speaking	3
COMM/MNGT 120	Introduction to Interpersonal and Organizational Communication H	3
COMM 160	Introduction to Performance Studies H	3
COMM/MNGT 223	Small Group Communication	3
COMM/WGST 224	Introduction to Gender and Communication ^H	3
COMM 312	Persuasion	3
COMM/MNGT 325	Introduction to Organizational Communication	3
COMM 372	The Rhetoric of Social Movements	3
CZCH 280	Closely Watched Trains: Czech Film and Literature	3
CZCH 411	Introduction to Czech Literature	3
CZCH/CMPL 469	Wildir Kulluela allu Wollu Literature	3
DRAM 281	Theatre History and Literature I	3
DRAM 282	Theatre History and Literature II	3
DRAM 283	Theatre History and Literature III	3
DRAM 486	Latin American Theatre	3
DTCH 275	Rising Fortunes and Rising Tides: The Dutch Golden Age and its Legacy	3
ENGL 115	History of the English Language	3
ENGL 213	Grammar of Current English	3
ENGL 215	English in the U.S.A. H	3
ENGL 301	Professional Writing in the Arts	3
ENGL 302	Professional Communication for Social Movements	3
ENGL 303	Scientific and Technical Communication	3
ENGL 304	Advanced Business Communication	3
ENGL 305	Advanced Legal Communication	3
FREN 186	Food for Thought: Cultures of Cuisine in Modern France (Renumbered from FREN 286 effective Fall 2021)	3
FREN 280	French "Discoveries" of the Americas in Translation	3
FREN 285	Sex, Philosophy, and Politics: Revolutionary Literature in Translation	3
GEOG 59	First-Year Seminar. Space, Identity, and Power in the Middle East	3
GEOG 64	First-Year Seminar. Vietnam	3
GEOG 259	Society and Environment in Latin America	3
GEOG 266	Society and Environment in Southeast Asia	3
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GEOG 457	Rural Latin America: Agriculture, Environment, and Natural Resources	3
GEOG 458	Urban Latin America: Politics, Economy, and Society	3
GERM 210	Getting Medieval: Knights, Violence, and Romance	3
GERM 211	Concepts in Medieval Culture	3
GERM 216	The Viking Age	3
GERM/WGST 220	Women in the Middle Ages ¹	3
GERM/RELI 227	Luther and the Bible	3
GERM 245	Marx, Nietzsche, and Freud	3
GERM 247	Music, Madness, and Genius: The Pathologies of German Musical Literature	3
GERM 249	German Literature in Translation	3
GERM/CMPL 263	European Exile Cinema ¹	3
GERM 265	## Hitler in Hollywood: Cinematic Representations of Nazi Germany	3
GERM/CMPL 266	Weimar Cinema	3
GERM/CMPL 267	Contemporary German and Austrian Cinema	3
GERM 268	Auteur Cinema	3
GERM/CMPL/ WGST 271	Women in German Cinema	3
GERM/CMPL 272	History of German Cinema	3
GERM 278	Performance, Drama, Translation, Adaptation and Ethnographic Exchange	3
GERM/CMPL 279	Once Upon A Fairy Tale: Fairy Tales and Childhood, Then and Now	3
GERM 280	20th-Century German Philosophy and Modern Youth Cultures	3
GERM 281	The German Idea of War. Philosophical Dialogues with the Literary and Visual Arts in WWI	3
GERM 282	Different than the Others: Stories of Queer German Liberation, 1864-2021	3
GERM/PWAD 283	Freedom, Terror, and Identity: Modern Philosophy from Kant to Arendt	3
GERM 284	Translations and Adaptations of German Pop Literature	3
GERM 285	Contemporary German Literature in Translation	3
GERM 286	(Un)Welcomed Guests? German Reflections on Exile and Immigration	3
GERM 450	Nietzsche, Hesse, and Mann ¹	3
GERM/JWST 466	Language Remains: German-Jewish Dialogues and Beyond ¹	3
GERM/CMPL 479	What is a Medium? German Media Theory from Aesthetics to Cultural Techniques ¹	3
GSLL 50	First-Year Seminar. Literary Fantasy and Historical Reality ¹	3
GSLL 51	First-Year Seminar. Stalin and Hitler. Historical Issues in Cultural and Other Perspectives	3
GSLL 52	First-Year Seminar. Nature and Death: Ecological Crises in German Literature and Film	3

GSLL 53	First-Year Seminar. Early Germanic Culture: Myth, Magic, Murder, and Mayhem	3
GSLL 54	First-Year Seminar. Once upon a Fairy Tale: Fairy Tales and Childhood, Then and Now	3
GSLL/JWST 56	First-Year Seminar. Germans, Jews, and the History of Anti-Semitism	3
GSLL 59	First-Year Seminar. Moscow 1937: Dictatorships and Their Defenders	3
GSLL 60	First-Year Seminar. Avant-Garde Cinema: History, Themes, Textures	3
GSLL 67	First-Year Seminar. Blackness in the European Imaginary, Europe in the Black Imaginary	3
GSLL 68	First-Year Seminar. Intensity, Vitality, Ecstasy: Affects in Literature, Film, and Philosophy ^{1, H}	3
GSLL 69	First-Year Seminar. Laughing and Crying at the Movies: Film and Experience	3
GSLL 70	First-Year Seminar. Teenage Kicks: Race, Class, and Gender in Postwar Youth Cultures	3
GSLL 75	First-Year Seminar. The Book of Books: Literature and the Bible 1	3
GSLL 76	First-Year Seminar. Uncharted Territory. Underworlds in Literature and the Visual Arts ¹	3
GSLL 80	Not Just Dogs: Animals in Russian Literature	3
GSLL 83	First-Year Seminar. We, Robots: Identifying with our Automated Others in Fiction and Film	3
GSLL 84	First-Year Seminar. Terror for the People: Terrorism in Russian Literature and History	3
GSLL 85	First-Year Seminar. Children and War	3
GSLL 87	First-Year Seminar. Literature Confronting Totalitarianism	3
GSLL 88H	First-Year Seminar. Gender and Fiction in Central and Eastern Europe	3
GSLL 212	"Game of Thrones" and the Worlds of the European Middle Ages	3
GSLL 218	Christianity and Islam in the Middle Ages ¹	3
GSLL/JWST 225	Popular and Pious: Early Modern Jewish Literature	3
GSLL 254	The Division of Germany, Reunification, and Conflict with Russia ^H	3
GSLL 255	Germany and Cold War. Occupation, Division, Reunification, Renewed Conflict with Russia (1945- Today)	3
GSLL 259	Ideology and Aesthetics: Marxism and Literature	3
GSLL 260	From Berlin to Budapest: Literature, Film, and Culture of Central Europe	3
GSLL/JWST 268	Cultural Trends in Post-Communist Central Europe: Search for Identity, Importance of Jewish Voices	3
GSLL/CMPL 270/ JWST 239/RELI 239	German Culture and the Jewish Question	3

GSLL 271	Vampires and Empires ¹	3
GSLL 272	Poland, Russia, and Germany through the Prism of	3
0011.070	Film ¹	
GSLL 273	Close Your Eyes and See a Film: The Documentary in Central Europe ¹	3
GSLL 274	Representing the Holocaust: Mediating Trauma in Art and Theory ¹	3
GSLL 278	Music, Image, Text ¹	3
GSLL 279	A River Runs Through It: Cultural Geography Through Imaginative Literature ¹	3
GSLL 280	The Dialectic of Whiteness and Blackness in Atlantic Cultures	3
GSLL/CMPL 281	Holocaust Cinema in Eastern Europe	3
GSLL/AAAD 282	Afropessimism in American and European Film	3
GSLL 283	Hungarian Cinema since World War II ¹	3
GSLL 285	Dissent and Protest in Central Europe	3
GSLL 286	The Upright and the Toppled: Public Lives of Monuments in Europe and the American South ¹	3
GSLL 287	Into the Streets: 1968 and Dissent in Central Europe	3
GSLL/JWST/ PWAD 465	Literature of Atrocity: The Gulag and the Holocaust in the Soviet Union and Eastern Europe ¹	3
GSLL 480	Interrogating Cultures of Fascism: Introduction to Frankfurt School's Critical Theory 1923-Present ¹	3
GSLL 481	Grand Hotels and Empty Fields: Inventing Central Europe through Culture	3
ITAL 241	The Renaissance Mind and Body	3
ITAL 242	Italy and Modernity: Culture in a Changing Country	3
JAPN 160	Introduction to Japanese Literature in Translation ¹	3
JAPN 162	Japanese Popular Culture ¹	3
JAPN 231/ HIST 271	Ancient and Medieval Japanese History and Culture 1	3
JAPN 246/ HIST 247	Early Modern Japanese History and Culture ¹	3
JAPN 277	Empire of Sex: Eroticism, Mass Culture, and Geopolitics in Japan, 1945-Present	3
JAPN 375	The Culture of Modern, Imperial Japan,	3
JAPN 482	Embodying Japan: The Cultures of Beauty, Sports, and Medicine in Japan 1	3
KOR 150	History, Memory, and Reality in Contemporary Korea 1	3
KOR 151	Education and Social Changes in Contemporary Korea 1	3
KOR/CMPL 232	Imagining the City in Modern Korea: Text,	3
KOR/CMPL/		3
WGST 237	Rebel, Lover, Martyr. Gender and Sexuality in North and South Korean Screen Cultures ¹	
KOR 327	Korean Diasporas ¹	3
KOR 346/ CMPL 246	Body Politics in Modern Korean Literature ^{1, H}	3

KOR 447/ CMPL 547	Documenting Diasporas: Korean Diasporas in Films and Documentaries ¹	3
LTAM 101	Introduction to Latin American Studies	3
LTAM 314	Law and Society in Latin America	3
LTAM 350	The United States and Latin America	3
LING 101	Introduction to Language H	3
LING 165	Exploring the World's Languages	3
LING 202	🕸 Linguistic Variation and Language Change	3
LING/ASIA 260	🕸 Languages of Southeast Asia	3
LING/ANTH/ WGST 302	Language and Power	3
LING 304	Introduction to Discourse	3
LING 305	Race against Time: Language Revitalization	3
LING/AAAD 335	Structure of African American English	3
LING 427	Morphology	3
LING 558	Ancient Mayan Hieroglyphs	3
LING 560	Mesoamerican Languages and Linguistics	3
LING 561	Native Languages of the Americas	3
LING/RUSS 562	Structure of Russian	3
LING/JAPN 563	Structure of Japanese	3
LING 573	Linguistic Field Methods I	3
PHIL/LING 145	Language, Communication, and Human and Animal Minds ^H	3
PHIL 411	Aristotle	3
PHIL 412	Plato	3
PHIL 423	Kant's Theoretical Philosophy 1	3
PHIL 424	Kant's Practical Philosophy 1	3
PHIL 426	Nietzsche ¹	3
PLSH 280	The Modern Cinema of Poland ¹	3
PLSH 411	19th-Century Polish Literature and Culture ¹	3
PLSH/JWST 412	From Communism to Capitalism: 20th- and 21st- Century Polish Literature and Culture	3
POLI 270	Classical Political Thought H	3
PORT 316	Brazilian Performance in Music and Dance: Capoeira	3
PORT 370	Modern Brazil through Literature and Film in Translation	3
PORT 375	Portuguese and Brazilian Fiction in Translation	3
PORT 382	Women Writers: Brazil and Beyond	3
PORT 385	Verbal Art, Identities, and Nation in Portuguese-	3
DODT 207	Speaking Africa	2
PORT 387	Brazilian Religious Movements through Film and Literature	3
PORT 388	Portuguese, Brazilian, and African Identity in Film	3
PSYC 58	First-Year Seminar. The Psychology of Mental States and Language Use H	3
PSYC 432	Psychology of Language	3

PSYC 438	Research Topics in the Psychology of Language	3
RELI/JWST 211	Classical Hebrew I: A Linguistic Introduction to the Hebrew Bible	3
ROML 229	Literature in the Romance Languages H	3
RUSS 270	Crimes and Punishments: Russian Literature of the 19th Century	3
RUSS 275	Russian Fairy Tale ¹	3
RUSS 276	Mystery and Suspense in Russian Literature	3
RUSS 277	Love, Sex, and Marriage in Soviet Culture	3
RUSS 278	Russian and Soviet Science Fiction	3
RUSS 279	Sunstrokes in Dark Alleys: Russian Short Stories	3
RUSS 280	Russian Villains, Western Screens: Ethno- Cultural Stereotypes on Page and Stage, in Movies and Minds	3
RUSS/CMPL 282	Russian Literature in World Cinema	3
RUSS 445	🕯 19th Century Russian Literature and Culture	3
RUSS 450	The Russian Absurd: Text, Stage, Screen	3
RUSS 455	20th-Century Russian Literature and Culture	3
RUSS 464	Dostoevsky	3
RUSS 465	Chekhov ¹	3
RUSS 469	Bulgakov ¹	3
RUSS 471	Gogol ¹	3
RUSS/CMPL 477	Wicked Desire: Vladimir Nabokov, Lolita, on Page and Screen	3
RUSS 479	Tolstoy	3
RUSS/JWST 480	Russian-Soviet Jewish Culture: Lofty Dreams and Stark Realities H	3
RUSS/EURO/ WGST 486	Exploration of Russian "Women's Prose" and Svetlana Alexievich (Nobel Prize in Literature 2015)	3
SLAV 86	First-Year Seminar. Literature and Madness	3
SLAV 248	Childhood and Adolescence in Slavic Literature ^{1, H}	3
SLAV 277	Songs of Liberty, Light, and Resilience: Ukrainian Literature Today 1	3
SLAV/JWST 464	Imagined Jews: Jewish Themes in Polish and Russian Literature	3
SLAV/JWST 469	Coming to America: The Slavic Immigrant Experience in Literature	3
SLAV 470	20th-Century Russian and Polish Theater ¹	3
SPHS 401	American Sign Language I	3
SPHS 402	American Sign Language II	3
SPHS 530	Introduction to Phonetics	3
SPHS 540	Speech Science	3
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H Honors version available. An honors course fulfills the same requirements as the nonhonors version of that course. Enrollment and GPA restrictions may apply.

¹ Course added to list effective fall 2023.

Additional Course Lists for Making Connections Quantitative Substitution Approved Students

Quantitative Intensive (QI) Course List

Code	Title	Hours
ANTH 411	Laboratory Methods in Archaeology H	3
ANTH 680	Quantitative Methods in Archaeology	3
ASTR 63	First-Year Seminar. Catastrophe and Chaos: Unpredictable Physics H	3
ASTR 390	Research and Special Topics for Juniors and Seniors	1-12
BIOL 201	Ecology and Evolution ^H	4
BIOL 226	Mathematical Methods for Quantitative Biology	3
BIOL 534	Mathematical Modeling in the Life Sciences	3
BIOL 553	Mathematical and Computational Models in Biology	3
COMP 50	First-Year Seminar. Everyday Computing H	3
COMP 60	First-Year Seminar. Robotics with LEGO® H	3
COMP 665	Images, Graphics, and Vision	3
ECON 400	Introduction to Data Science and Econometric	s 4
ECON 470	Econometrics H	3
ECON 485	Economics of Sports	3
ECON 550	Advanced Health Econometrics	3
ECON 575	Applied Time Series Analysis and Forecasting	3
EMES 51	First-Year Seminar. Global Warming: Science, Social Impacts, Solutions	3
EMES 203	Data Analysis for Earth, Marine, and Environmental Sciences	3
EMES 435	Principles of Environmental Consulting: Mechanic of Groundwater Flow	cs 3
EMES 436	Geochemistry of Natural Waters	3
EMES 460	Fluid Dynamics of the Environment	3
EMES 470	Estuarine and Coastal Marine Science	4
EMES 561	Time Series and Spatial Data Analysis	3
EMES 655	Recent Advances in Non-Traditional Stable Isotop Geochemistry	oe 3
ENEC 222	Estuarine and Coastal Marine Science	4
ENEC 435	Principles of Environmental Consulting: Mechanic of Groundwater Flow	
ENEC 473	Business and Finance Fundamentals for Change Makers	3
ENVR 205	Engineering Tools for Environmental Problem Solving	3
EURO 285	Applied Experimental Research: Politics in the US and Europe	3
EXSS 273	Research in Exercise and Sport Science	3
GEOG 215	Introduction to Spatial Data Science	3
GEOG 410	Modeling of Environmental Systems	3

GEOG 567	Geospatial Data Analysis with Google Earth Engine	3	
LING 333	Human Language and Animal Communication Systems	3	
LING 540	Mathematical Linguistics	3	
MATH 51	First-Year Seminar. 'Fish Gotta Swim, Birds Gotta Fly': The Mathematics and the Mechanics of Moving H	3	
MATH 62	First-Year Seminar. Combinatorics H	3	
MATH 65	First-Year Seminar. Colliding Balls and Springs: The Microstructure of How Materials Behave	3	
MATH 68	First-Year Seminar. The Mathematics of Voting	3	
MATH 69	First-Year Seminar. Unfolding Infinity: Mathematical Origami and Fractal Symmetry	3	
MATH 70	First-Year Seminar. Topology and Symmetry	3	
MATH 232	Calculus of Functions of One Variable II	4	
MATH 233	© Calculus of Functions of Several Variables H	4	
MATH 307			
MATH 307 MATH 347	Revisiting Real Numbers and Algebra Linear Algebra for Applications	3	
MATH 381	Discrete Mathematics H	3	
MATH 383	First Course in Differential Equations H	3	
MATH 406	Mathematical Methods in Biostatistics	1	
MATH 411	Developing Mathematical Concepts	3	
MATH 418	Basic Concepts of Analysis for High School Teachers	3	
MATH 521		2	
MATH 521	Advanced Calculus I ^H	3	
MATH 522	Advanced Calculus I ^H Advanced Calculus II ^H	3	
	Advanced Calculus I ^H Advanced Calculus II ^H Functions of a Complex Variable with Applications	3	
MATH 522 MATH 523	Advanced Calculus I ^H Advanced Calculus II ^H Functions of a Complex Variable with Applications Elementary Differential Equations	3 3	
MATH 522 MATH 523 MATH 524	Advanced Calculus I ^H Advanced Calculus II ^H Functions of a Complex Variable with Applications Elementary Differential Equations Mathematical Methods for the Physical Sciences I	3	
MATH 522 MATH 523 MATH 524 MATH 528	Advanced Calculus I ^H Advanced Calculus II ^H Functions of a Complex Variable with Applications Elementary Differential Equations	3 3 3 3	
MATH 522 MATH 523 MATH 524 MATH 528 MATH 529	Advanced Calculus I ^H Advanced Calculus II ^H Functions of a Complex Variable with Applications Elementary Differential Equations Mathematical Methods for the Physical Sciences I Mathematical Methods for the Physical Sciences II	3 3 3 3	
MATH 522 MATH 523 MATH 524 MATH 528 MATH 529 MATH 533	Advanced Calculus I ^H Advanced Calculus II ^H Functions of a Complex Variable with Applications Elementary Differential Equations Mathematical Methods for the Physical Sciences I Mathematical Methods for the Physical Sciences II Elementary Theory of Numbers	3 3 3 3 3	
MATH 522 MATH 523 MATH 524 MATH 528 MATH 529 MATH 533 MATH 534	Advanced Calculus I ^H Advanced Calculus II ^H Functions of a Complex Variable with Applications Elementary Differential Equations Mathematical Methods for the Physical Sciences I Mathematical Methods for the Physical Sciences II Elementary Theory of Numbers Elements of Modern Algebra	3 3 3 3 3 3	
MATH 522 MATH 523 MATH 524 MATH 528 MATH 529 MATH 533 MATH 534 MATH 535	Advanced Calculus I ^H Advanced Calculus II ^H Functions of a Complex Variable with Applications Elementary Differential Equations Mathematical Methods for the Physical Sciences I Mathematical Methods for the Physical Sciences II Elementary Theory of Numbers Elements of Modern Algebra Introduction to Probability	3 3 3 3 3 3 3	
MATH 522 MATH 523 MATH 524 MATH 528 MATH 529 MATH 533 MATH 534 MATH 535 MATH 548	Advanced Calculus I H Advanced Calculus II H Functions of a Complex Variable with Applications Elementary Differential Equations Mathematical Methods for the Physical Sciences I Mathematical Methods for the Physical Sciences II Elementary Theory of Numbers Elements of Modern Algebra Introduction to Probability Combinatorial Mathematics	3 3 3 3 3 3 3	
MATH 522 MATH 523 MATH 524 MATH 528 MATH 529 MATH 533 MATH 534 MATH 535 MATH 548 MATH 548	Advanced Calculus I H Advanced Calculus II H Functions of a Complex Variable with Applications Elementary Differential Equations Mathematical Methods for the Physical Sciences I Mathematical Methods for the Physical Sciences II Elementary Theory of Numbers Elements of Modern Algebra Introduction to Probability Combinatorial Mathematics Topology	3 3 3 3 3 3 3 3	
MATH 522 MATH 523 MATH 524 MATH 528 MATH 529 MATH 533 MATH 534 MATH 535 MATH 548 MATH 550 MATH 551	Advanced Calculus I H Advanced Calculus II H Functions of a Complex Variable with Applications Elementary Differential Equations Mathematical Methods for the Physical Sciences I Mathematical Methods for the Physical Sciences II Elementary Theory of Numbers Elements of Modern Algebra Introduction to Probability Combinatorial Mathematics Topology Euclidean and Non-Euclidean Geometries Mathematical and Computational Models in Biology	3 3 3 3 3 3 3 3 3	
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MATH 522 MATH 523 MATH 524 MATH 528 MATH 529 MATH 533 MATH 534 MATH 535 MATH 548 MATH 550 MATH 551 MATH 553 MATH 553 MATH 554 MATH 555 MATH 566 MATH 566 MATH 577	Advanced Calculus I H Advanced Calculus II H Functions of a Complex Variable with Applications Elementary Differential Equations Mathematical Methods for the Physical Sciences I Mathematical Methods for the Physical Sciences II Elementary Theory of Numbers Elements of Modern Algebra Introduction to Probability Combinatorial Mathematics Topology Euclidean and Non-Euclidean Geometries Mathematical and Computational Models in Biology Introduction to Dynamics Mathematical Modeling in the Life Sciences Introduction to Numerical Analysis Linear Algebra	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	
MATH 522 MATH 523 MATH 524 MATH 528 MATH 529 MATH 533 MATH 534 MATH 535 MATH 548 MATH 550 MATH 551 MATH 553 MATH 553 MATH 554 MATH 557 MATH 564 MATH 566 MATH 577 MATH 578	Advanced Calculus I H Advanced Calculus II H Functions of a Complex Variable with Applications Elementary Differential Equations Mathematical Methods for the Physical Sciences I Mathematical Methods for the Physical Sciences II Elementary Theory of Numbers Elements of Modern Algebra Introduction to Probability Combinatorial Mathematics Topology Euclidean and Non-Euclidean Geometries Mathematical and Computational Models in Biology Introduction to Dynamics Mathematical Modeling in the Life Sciences Introduction to Numerical Analysis Linear Algebra Algebraic Structures	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	
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PHIL 357	🗓 Induction, Probability, and Confirmation	3
PHIL 456	Advanced Symbolic Logic	
PHYS 55	First-Year Seminar. Introduction to Mechatronics	4
PHYS 63	First-Year Seminar. Catastrophe and Chaos: Unpredictable Physics H	3
PHYS 102	General Physics Lecture I	3
PHYS 103	General Physics Lecture II	3
PHYS 114	General Physics I: For Students of the Life Sciences	4
PHYS 115	General Physics II: For Students of the Life Sciences	4
PHYS 118	Introductory Calculus-based Mechanics and Relativity H	4
PHYS 119	Introductory Calculus-based Electromagnetism and Quanta ^H	4
PHYS 131	Energy: Physical Principles and the Quest for Alternatives to Dwindling Oil and Gas	3
PLCY 460	Quantitative Analysis for Public Policy H	4
POLI 209	Analyzing Public Opinion H	3
POLI 281	Data in Politics I: An Introduction	3
POLI 285	Applied Experimental Research: Politics in the US and Europe	3
POLI 287	Strategy and International Relations	3
POLI 288	Strategy and Politics	3
POLI 381	Data in Politics II: Frontiers and Applications	3
POLI 417	Advanced Political Psychology ^H	3
POLI 488	Game Theory	3
PSYC 210	Statistical Principles of Psychological Research	3
PSYC 310	Applied Statistical Methods in the Psychological Sciences	3
PSYC 525	Psychological Archival Data Science	3
PSYC 528	Clinical Research: Design, Analyze, Disseminate	3
PSYC 530	Design and Interpretation of Psychological Research	3
PSYC 531	Tests and Measurement	3
PSYC 534 PSYC 535	Introduction to Computational Statistics	3
	Programming for Psychologists: Computational Tools for Psychological Research	
PWAD 287	Strategy and International Relations	3
SOCI 252	🗓 Data Analysis	3
STOR 52	First-Year Seminar. Decisions, Decisions, Decisions	3
STOR 53	FYS: Networks: Degrees of Separation and Other Phenomena Relating to Connected Systems	3
STOR 54	First-Year Seminar. Adventures in Statistics	3
STOR 55	First-Year Seminar. Risk and Uncertainty in the Real World	3

STOR 56	First-Year Seminar. The Art and Science of Decision Making in War and Peace	3
STOR 60	First-Year Seminar. Statistical Decision-Making Concepts	3
STOR 61	First-Year Seminar. Statistics for Environmental Change	3
STOR 62	First-Year Seminar. Probability and Paradoxes	3
STOR 63	FYS: Statistics, Biostatistics, and Bioinformatics: An Introduction to the Ongoing Evolution	3
STOR 64	First-Year Seminar. A Random Walk down Wall Street	3
STOR 66	First-Year Seminar: Visualizing Data	3
STOR 72	First-Year Seminar. Unlocking the Genetic Code	3
STOR 305	Introduction to Decision Analytics	3
STOR 320	Introduction to Data Science	4
STOR 435	Introduction to Probability	3
STOR 471	Long-Term Actuarial Models	3

H Honors version available. An honors course fulfills the same requirements as the nonhonors version of that course. Enrollment and GPA restrictions may apply.

Focus Capacity: Quantitative Reasoning (FC-QUANT) Course List

Ocure Liet		
Code	Title	Hours
ANTH 520	Linguistic Phonetics	3
ANTH 680	Quantitative Methods in Archaeology	3
ASTR 100	Understanding the Universe	3
ASTR 101	Introduction to Astronomy: The Solar System	н 3
ASTR 102	Introduction to Astronomy: Stars, Galaxies & Cosmology H	3
ASTR 103	Alien Life in the Universe	3
BIOL 115	Reasoning with Data: Navigating a Quantitative World	/e 3
BIOL 222	Introduction to Programming with Biological Data	3
BIOL 544L	Laboratory in Diseases of the Cytoskeleton	3
COMP 110	Introduction to Programming and Data Science	e 3
COMP 283	Discrete Structures H	3
COMP 550	Algorithms and Analysis	3
ECON 400	Introduction to Data Science and Econometric	es 4
ECON 470	Econometrics H	3
EMES 203	Data Analysis for Earth, Marine, and Environmental Sciences	3
ENEC 203	Introduction to Environmental Science Problem Solving	m 3

	ENEC 473	Business and Finance Fundamentals for Change Makers	3	PHIL 105	How to Critical Th
	ENGL 482	Metadata, Mark-up, and Mapping: Understanding the Rhetoric of Digital Humanities	3	PHIL 155	Truth a
E	ENVR 135	Environment-ECUIPP Lab: Connecting with	3	PHIL 157	Logic a
		communities through environmental research for Public Health		PHIL 251	inducti
	ENVR 335	Adv Environ-ECUIPP Lab: Connecting with Communities Through Environmental Research for	3	PHIL 357	inducti
				PHIL 455	Symbo
		PH Protection		PHIL 456	4 Advanc
	GEOG 215	Introduction to Spatial Data Science	3	PHYS 55	First-Ye
	GEOG 370	introduction to Geographic Information	3		Mechatron
	GEOG 410	Modeling of Environmental Systems	3	PHYS 101	Basic C
	GEOG 456	Geovisualizing Change	3	PHYS 106	Inquiry
	GEOG 477	Introduction to Remote Sensing of the Environment	3	PHYS 114	Genera Sciences
	GEOG 567	Geospatial Data Analysis with Google Earth Engine	3	PHYS 115	Genera Sciences
	GEOG 577	Advanced Remote Sensing	3	PHYS 118	Introdu
	GEOG 591	Applied Issues in Geographic Information Systems	3	PHYS 119	Relativity Introdu
	GEOG 592	Geographic Information Science Programming	3	DUNG 001	and Quant
	LING 333	Human Language and Animal Communication Systems	3	PHYS 231 PLAN 363	Physical Person
	LING 401	Language and Computers	3		Policy
	LING 520	Linguistic Phonetics	3	PLCY 460	Quantit
	LING 558	Ancient Mayan Hieroglyphs	3	PLCY 505	Data So Making
	MATH 115	Reasoning with Data: Navigating a Quantitative World	3	POLI 209	Analyzi
	MATH 116	Intuitive Calculus	3	POLI 281	😳 Data in
	MATH 117	Aspects of Finite Mathematics	3	POLI 287	Strateg
	MATH 118	Aspects of Modern Mathematics	3	POLI 288	Strateg
	MATH 119	Introduction to Mathematical Modeling	3	POLI 439	nalyzi
	MATH 130	Precalculus Mathematics	3	PSYC 115	Reasor
	MATH 152	© Calculus for Business and Social Sciences	3	PSYC 210	World
	MATH 210	Mathematical Tools for Data Science	3	F310 210	Statisti
	MATH 231	Calculus of Functions of One Variable I H	4	PSYC 535	Prograi
	MATH 232	Calculus of Functions of One Variable II	4		Tools for F
	MATH 233	© Calculus of Functions of Several Variables H	4	PWAD 287	Strateg
	MATH 235	Mathematics for Data Science	4	SOCI 180	introdu
	MEJO 379	Advertising and Public Relations Research	3	SOCI 251	Resear
	MEJO 479	Market Intelligence H	3	SOCI 252	Data A
N N	MEJO 570	Data Driven Journalism	3	STOR 113	Decision Decision
	NAVS 301	Naval Ships Engineering Systems	3	STOR 115	Reasor
	NAVS 302	Naval Weapons Systems	3	CTOD 100	World
	NSCI 419	Behavioral Endocrinology	3	STOR 120	Founda

PHIL 105	How to Reason and Argue: An Introduction to Critical Thinking	3
PHIL 155	Truth and Proof: Introduction to Mathematical Logic H	3
PHIL 157	Logic and Decision Theory H	3
PHIL 251	Inductive Logic and the Scientific Method	3
PHIL 357	induction, Probability, and Confirmation	3
PHIL 455	Symbolic Logic	3
PHIL 456	Advanced Symbolic Logic	3
PHYS 55	First-Year Seminar: Introduction to Mechatronics	4
PHYS 101	Basic Concepts of Physics	4
PHYS 106	inquiry into the Physical World	4
PHYS 114	General Physics I: For Students of the Life Sciences	4
PHYS 115	General Physics II: For Students of the Life Sciences	4
PHYS 118	Introductory Calculus-based Mechanics and Relativity H	4
PHYS 119	Introductory Calculus-based Electromagnetism and Quanta H	4
PHYS 231	Physical Computing H	4
PLAN 363	Personal Finance, Wealth Building, and Public Policy	3
PLCY 460	Quantitative Analysis for Public Policy H	4
PLCY 505	Data Science for Public Policy and Decision Making	4
POLI 209	Analyzing Public Opinion H	3
POLI 281	Data in Politics I: An Introduction	3
POLI 287	Strategy and International Relations	3
POLI 288	Strategy and Politics	3
POLI 439	Analyzing European Public Opinion	3
PSYC 115	Reasoning with Data: Navigating a Quantitative World	3
PSYC 210	Statistical Principles of Psychological Research	3
PSYC 535	Programming for Psychologists: Computational Tools for Psychological Research	3
PWAD 287	Strategy and International Relations	3
SOCI 180	introduction to Global Population Health	3
SOCI 251	Research Methods	3
SOCI 252	Data Analysis	3
STOR 113	Decision Models for Business and Economics	3
STOR 115	Reasoning with Data: Navigating a Quantitative World	3
STOR 120	Foundations of Statistics and Data Science	4

STOR 151	introduction to Data Analysis	3
STOR 155	introduction to Data Models and Inference	3
STOR 215	Foundations of Decision Sciences	3
STOR 235	🌼 Mathematics for Data Science	4
STOR 305	introduction to Decision Analytics	3
STOR 315	Discrete Mathematics for Data Science	4
STOR 320	Introduction to Data Science	4

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