General Science (GS) Planning Sheet

All courses used for the GS major must be completed with grades of C– or P (pass) or better.

Lower Division Requirements:
Calculus or Calculus for the Biological Sciences: MATH 251, 252 or MATH 246, 247

Three of the following sequences, two of which must include labs. The third can but does not have to, include labs.

**Lab Sequences**
- General Biology (any three of four) or Honors Biology:
- General Chemistry & Lab or Honors Chemistry & Lab:
- Computer/Information Science:
- Elective:
- Non-Lab Sequences

**Upper Division Requirements:**
32 upper division credits from the lists below. 24 must be taken at UO. At least twelve graded credits (not P/NP) must be in one field and at least twelve graded credits must be in a second field. We strongly encourage students to take all majors classes for a grade. 4 of the 32 credits may be research (401), thesis (403), or supervised college teaching (402) credits. Seminar, Readings & Conference, Practicum, Internship, and Tutorial credits may not be used for the General Science major. Note for double majors: upper division credits used for another major may not be used to satisfy GS requirements.

**Anthropology:**
- ANTH 341 Food Origins
- ANTH 361 Human Evolution
- ANTH 362 Human Biological Variation
- ANTH 368 Human Osteology Lab
- ANTH 369 Human Growth and Development
- ANTH 375 Primates in Ecological Communities
- ANTH 376 Genomics and Anthropology
- ANTH 410 **Requires GenSci Advisor approval
- ANTH 443 North American Archaeology
- ANTH 445 Archaeology of Cultural Landscapes
- ANTH 446 Practical Archaeobotany
- ANTH 456 Peopling of the Americas
- ANTH 459 Advanced Evolutionary Medicine
- ANTH 462 Primate Evolution
- ANTH 463 Primate Behavior
- ANTH 466 Primate Feeding and Nutrition
- ANTH 467 Paleopaleoecology and Human Evolution
- ANTH 468 Evolutionary Theory
- ANTH 470 Stat Analysis of Bio Arth
- ANTH 471 Zoorarchaeology
- ANTH 472 Primate Conservation Biology
- ANTH 473 Advanced Forensic Anthropology
- ANTH 474 Human Paleopathology
- ANTH 475 Paleontology: Bones, Bugs, and Burials
- ANTH 481 Principles of Evolutionary Psychology
- ANTH 487 Bioanthropology Methods

**Biology:**
- BI 306 Pollination Biology
- BI 307 Forest Biology
- BI 309 Diseases of Africa
- BI 320 Molecular Genetics
- BI 321 Molecular Genetics Research Laboratory
- BI 322 Cell Biology
- BI 328 Developmental Biology
- BI 330 Microbiology
- BI 331 Microbiology Laboratory
- BI 335 Sensory Physiology
- BI 355 Vertebrate Evolution and Development
- BI 356 Animal Physiology
- BI 357 Marine Biology
- BI 358 Investigations in Medical Physiology
- BI 359 Plant Biology
- BI 360 Neurobiology
- BI 370 Ecology
- BI 372 Field Biology
- BI 374 Conservation Biology
- BI 375 Biological Diversity
- BI 380 Evolution
- BI 390 Animal Behavior
- BI 410 Experimental Courses
- BI 412 Marine Field Studies
- BI 420 Cellular Basis of Learning and Memory
- BI 421 Advanced Molecular Genetics Res Lab
- BI 422 Protein Toxins in Cell Biology

**Chemistry:**
- CH 331 Organic Chemistry I
- CH 332 Organic Chem of Bio Molecules
- CH 335 Organic Chemistry II
- CH 336 Organic Chemistry III
- CH 337 Organic Chem Lab I
- CH 338 Organic Chem Lab II
- CH 339 Organic Analysis
- CH 341 Majors Track Organic Chemistry I
- CH 342 Majors Track Organic Chemistry II
- CH 343 Majors Track Organic Chemistry III
- CH 348 Organic Chemistry Laboratory for Majors
- CH 349 Organic Chemistry Lab for Majors
- CH 360 Physiological Biochemistry

**Computer & Information Science:**
- CIS 313 Intro to Data Structures
- CIS 314 Computer Organization
- CIS 315 Intro to Algorithms
- CIS 322 Introduction to Software Engineering
- CIS 323 Data Structures Lab (discontinued 2014)
- CIS 330 C/C++ and Unix
- CIT 381 Database Systems
- CIT 382 Info Arch and Intranets
- CIT 383 Enterprise Networks
- CIS 410 Experimental Courses
- CIS 413 Data Structures
- CIS 415 Operating Systems
- CIS 420 Automata Theory
- CIS 422 Software Methodology I
- CIS 423 Software Methodology II
- CIS 425 Principles of Programming Languages
- CIS 427 Introduction to Logic
- CIS 429 Computer Architecture
- CIS 431 Introduction to Parallel Computing
- CIS 432 Introduction to Networks
- CIS 433 Computer and Network Security
- CIS 441 Introduction to Computer Graphics
- CIS 443 User Interfaces
- CIS 445 Modeling and Simulation
- CIS 451 Database Processing
- CIS 452 Database Issues
- CIS 453 Data Mining
- CIS 454 Bioinformatics

* The same class cannot be used towards both the lower division GS requirements and the upper division GS requirements.

Updated 9/22/17
GEOG 486 Remote Sensing II
GEOG 482 GIScience II
GEOG 481 GIScience I
GEOG 461 Environmental Alteration
GEOL 363 MATLAB for Earth Scientists
GEOL 353 Geologic Hazards
GEOG 491 Adv Geog Info Systems
GEOG 433 Fire and Natural Disturbances
GEOG 430 Long-Term Environmental Change
GEOL 410 Experimental Courses
GEOL 352 Structural Geology Lab
GEOL 332 Introduction to Petrology
GEOL 318 Introduction to Field Methods
GEOL 314 Principles of Paleontology
GEOL 440 Sedimentary Basin Analysis
GEOL 438 Geobiology
GEOL 414 Igneous and Metamorphic Petrology
GEOL 305 Dinosaurs
GEOL 468 Introduction to Seismology
GEOL 467 Fault Mechanics
GEOL 467 Fault Mechanics
GEOL 462 Aqueous Geochemistry
GEOG 472 Geosystems Research
GEOG 473 Isotope Geochemistry

Human Physiology (HPHY 211-325) are available for non-majors, but all other HPHY courses are restricted to HPHY majors only. Students that change their major from HPHY to GeSci can use these classes towards the major.

PHYS 490 Advanced Physics Laboratory
PHYS 481 Design of Experiments
PHYS 433 Physics Instrumentation
PHYS 481 Design of Experiments
PHYS 490 Advanced Physics Laboratory

Students that change their major from PSY to GenSci can use these classes towards the major.

PSY 301 Scientific Thinking in Psychology
PSY 302 Statistical Methods in Psychology
PSY 303 Research Methods in Psychology
PSY 304 Biopsychology
PSY 305 Cognition
PSY 306 Social Psychology (was PSY 456)
PSY 307 Personality (was PSY 471)
PSY 308 Developmental Psychology
PSY 309 Psychopathology (was PSY 469)
PSY 330 Thinking (discontinued)
PSY 348 Music and the Brain
PSY 366 Cul & Mental Health
PSY 376 Child Development (now PSY 308)
PSY 380 Gonadotropins
PSY 383 Psychoactive Drugs
PSY 388 Human Sexuality
PSY 410 **Requires GenSci Advisor approval
PSY 412 Applied Data Analysis
PSY 420 Psychology and Law
PSY 430 Cognitive Science
PSY 433 Learning and Memory
PSY 435 Cognition
PSY 436 Human Performance
PSY 438 Perception
PSY 440 Psycholinguistics
PSY 445 Brain Mechanisms of Behavior
PSY 449 Human Neuroplasty
PSY 450 Hormones and Behavior
PSY 456 Social Psychology (see PSY 306)
PSY 457 Group Dynamics
PSY 458 Decision-Making
PSY 459 Cultural Psychology
PSY 460 Advanced Social Psychology
PSY 461 Imagination
PSY 468 Psychology of Emotion
PSY 469 Psychopathology (see PSY 309)
PSY 471 Personality (see PSY 307)
PSY 472 Psychology of Trauma
PSY 473 Marital and Family Therapies
PSY 475 Cognitive Development
PSY 476 Language Acquisition
PSY 478 Social Development
PSY 480 Development and Psychopathology

Geography:
GEOG 321 Climatology
GEOG 322 Geomorphology
GEOG 323 Biogeography
GEOG 341 Population and Environment
GEOG 342 Geography of Globalization
GEOG 343 Society, Culture, and Place
GEOG 360 Western Science and Policy
GEOG 361 Global Environmental Change
GEOG 410 **Requires GenSci Advisor approval
GEOG 420 Geospatial Concepts
GEOG 421 Advanced Climatology
GEOG 422 Advanced Geomorphology
GEOG 423 Advanced Biogeography
GEOG 425 Hydrology and Water Resources
GEOG 427 Fluvial Geomorphology
GEOG 430 Long-Term Environmental Change
GEOG 432 Climate Aspects of Global Change
GEOG 433 Fire and Natural Disturbances
GEOG 461 Environmental Alteration
GEOG 481 GIScience I
GEOG 482 GIScience II
GEOG 485 Remote Sensing I
GEOG 486 Remote Sensing II
GEOG 491 Adv Geog Info Systems
GEOG 493 Adv Cartography
GEOG 494 Spatial Analysis
GEOG 495 Geographic Data Analysis
GEOG 496 Location-Aware Systems
GEOG 497 Qualitative Methods in Geography

Earth Sciences:
GEOL 304 The Fossil Record
GEOL 305 Dimensionary Linear Algebra
GEOL 306 Volcanoes and Earthquakes
GEOL 307 Oceanography
GEOL 308 Geology of Oregon and the Pacific NW
GEOL 310 Earth Resources and the Environment
GEOL 311 Earth Materials
GEOL 314 Principles of Paleontology
GEOL 315 Earth History
GEOL 316 Introduction to Hydrogeology
GEOL 318 Introduction to Field Methods
GEOL 331 Mineralogy
GEOL 332 Introduction to Petrology
GEOL 334 Sedimentology and Stratigraphy
GEOL 350 Structural Geology
GEOL 351 Structural Geology Problems
GEOL 352 Structural Geology Lab
GEOL 353 Geologic Hazards
GEOL 363 MATLAB for Earth Scientists
GEOL 410 Experimental Courses
GEOL 414 Igneous and Metamorphic Petrology
GEOL 415 Field Geophysics
GEOL 416 Sedimentary Petrology
GEOL 418 Earth and Environmental Data Analysis
GEOL 425 Geology of Ore Deposits
GEOL 433 Paleobotany
GEOL 434 Vertebrate Paleontology
GEOL 435 Paleopedology
GEOL 438 Geobiology
GEOL 440 Sedimentary Basin Analysis
GEOL 441 Hillslope Geomorphology
GEOL 450 Field Geology
GEOL 451 Hydrogeology
GEOL 452 Neotectonics and Quaternary Geology
GEOL 453 Tectonics
GEOL 455 Mechanical Earth
GEOL 466 Geodynamics
GEOL 467 Fault Mechanics
GEOL 468 Introduction to Seismology
GEOL 471 Thermodynamic Geochemistry

Mathematics:
MATH 307 Introduction to Proof
MATH 315 Elementary Analysis
MATH 318 Dimensionary Linear Algebra
MATH 322 Linear Algebra
MATH 324 Linear Algebra
MATH 325 Linear Algebra
MATH 335 Motor Development
MATH 336 Tissue Injury and Healing
MATH 337 Physiology of Exercise
MATH 338 Biomechanics
MATH 400 Experimental Courses
MATH 412 Sleep Physiology
MATH 413 Muscle Physiology
MATH 414 Muscle Metabolism
MATH 418 Integrative Endocrinology
MATH 419 Alternative and Comp Medicine
MATH 420 Human Cadaver Dissection
MATH 421 Pathophysiology
MATH 423 Neurophysiology of Contraction
MATH 424 Clinical Pharmacology
MATH 425 Lumbar & Pelvic Functional Anatomy
MATH 426 Therapeutic Techniques
MATH 427 Environmental Physiology
MATH 471 Training in Health and Performance
MATH 472 ADV LAB in Exercise Physiology
MATH 473 High Altitude Phys and Medicine
MATH 474 Gait Analysis
MATH 486 Orthopedic Biomechanics

Other Courses:
PHYS 351 Fundamentals of Physics I
PHYS 352 Fundamentals of Physics II
PHYS 353 Fundamentals of Physics III
PHYS 354 Introduction to Quantum Mechanics
PHYS 355 Introduction to Optics
PHYS 361 Modern Science and Culture
PHYS 390/391 Intermediate Physics Laboratory
PHYS 410 Experimental Courses
PHYS 411 Mechanics
PHYS 412 Electricity
PHYS 413 Magnetism
PHYS 414 Quantum Physics
PHYS 415 Quantum Physics II
PHYS 417 Topics in Quantum Physics
PHYS 422 Electromagnetism
PHYS 424 Classical Optics
PHYS 425 Modern Optics
PHYS 426 Modern Optics Laboratory
PHYS 427 X-Ray Crystallography
PHYS 431 Analog Electronics
PHYS 432 Digital Electronics
PHYS 433 Physics Instrumentation
PHYS 481 Design of Experiments
PHYS 490 Advanced Physics Laboratory

Psychology:
Many PSY classes are restricted to PSY majors & minors only. Students that change their major from PSY to GenSci can use these classes towards the major.

PSY 301 Scientific Thinking in Psychology
PSY 302 Statistical Methods in Psychology
PSY 303 Research Methods in Psychology
PSY 304 Biopsychology
PSY 305 Cognition
PSY 306 Social Psychology (was PSY 456)
PSY 307 Personality (was PSY 471)
PSY 308 Developmental Psychology
PSY 309 Psychopathology (was PSY 469)
PSY 330 Thinking (discontinued)
PSY 348 Music and the Brain
PSY 366 Cul & Mental Health
PSY 376 Child Development (now PSY 308)
PSY 380 Gonadotropins
PSY 383 Psychoactive Drugs
PSY 388 Human Sexuality
PSY 410 **Requires GenSci Advisor approval
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PSY 420 Psychology and Law
PSY 430 Cognitive Science
PSY 433 Learning and Memory
PSY 435 Cognition
PSY 436 Human Performance
PSY 438 Perception
PSY 440 Psycholinguistics
PSY 445 Brain Mechanisms of Behavior
PSY 449 Human Neuroplasty
PSY 450 Hormones and Behavior
PSY 456 Social Psychology (see PSY 306)
PSY 457 Group Dynamics
PSY 458 Decision-Making
PSY 459 Cultural Psychology
PSY 460 Advanced Social Psychology
PSY 461 Imagination
PSY 468 Psychology of Emotion
PSY 469 Psychopathology (see PSY 309)
PSY 471 Personality (see PSY 307)
PSY 472 Psychology of Trauma
PSY 473 Marital and Family Therapies
PSY 475 Cognitive Development
PSY 476 Language Acquisition
PSY 478 Social Development
PSY 480 Development and Psychopathology

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