NREM MEM & MS Plan B Concentration Areas

Below is a list of courses that are approved for the four MEM Concentration areas (as of November 17, 2017)

* For additional course applicability criteria, refer to: http://manoa.hawaii.edu/graduate/content/course-applicability.

(a) Applied Terrestrial Ecology (pre-requisites) ** = Currently not being offered

- NREM 450 Wildlife Ecology & Management (BIOL 172 or consent)
- NREM 480 Applied Forest Ecology (NREM 301 and 380 or consent)
- NREM 680 Ecosystem Ecology (Advanced undergraduate coursework in ecology and soil science and graduate standing; or consent)
- NREM 682 Restoration Ecology (Advanced undergraduate ecology course and graduate standing, or consent)
- NREM/BOT/ZOOL 690 Conservation Biology (BIOL 375 and either ZOOL 480 or BOT 462; and either ZOOL 410, 439, 620, 623, BOT 453, 454, 456, or 492; or consent)
- NREM 691 Advanced Topics in NREM: Forest Nutrition and Biogeochemistry (Graduate standing or consent)
- NREM 691 Advanced Topics in NREM: Advanced Methods in Wildlife Management & Conservation (Graduate standing or consent)
- BOT 444 Ethnoecology and Conservation (BOT 440, and 350 or 453 or GEOG 330; or consent)
- BOT 454 Plant Community Ecology; Prereqs: BOT 202 or Consent
- BOT 456 Plant-Animal Interactions (BOT 201/201L or BIOL 265/265L)
- TPSS 481 Weed Science (TPSS 200 and CHEM 152, or consent)
- BOT 651 Invasion Biology (One of BOT 453, 456, MICR 485 OR ZOOL 439; and BOT 462 or BIOL 375; or consent)
- BOT 661 Hawaiian Vascular Plants (BOT 461 or consent)
- TPSS 604 Advanced Soil Microbiology (TPSS 304 and MICR 351, or consent)
- ZOO 439 Animal Ecology (BIOL 265 and MATH 205 or MATH 215 or MATH 241; or consent)
- ** NREM 685 Landscape Ecology (Graduate standing or consent)

(b) Environmental Policy & Economics (pre-requisites) ** = Currently not being offered

- NREM 420 Community and Natural Resource Management (2 social science courses or consent)
- NREM/ECON/TPSS 429 Spreadsheet Modeling for Business and Economic Analysis (NREM 220 or ECON 130, and NREM 310 or ECON 321; or consent)
- NREM 491/HWST 458/BOT 458 Natural Resource Issues and Ethics in Hawai‘i (HWST 457/ BOT 457, HWST 107 and Junior standing; OR instructor consent)
- NREM 611 Resource and Environmental Policy (ECON 300 or ECON 301, or consent)
- NREM 620 Care and Collaborative Management of Natural Resources (Graduate
• NREM 637 Resource Economics (ECON 608 and ECON 629)
• NREM 658 Advanced Environmental Benefit-Cost Analysis (None)
• NREM 671 International Agricultural Systems (Consent)
• NREM 691 Advanced Topics in NREM: Environmental Benefit-Cost Analysis (Summer; Graduate standing or consent)
• NREM 691 Valuing Nature (Graduate standing or consent) (not offered until Spring 2018)

(c) Geospatial Analysis & Modeling (pre-requisites) ** = Currently not being offered

• NREM 477 GIS for Resource Managers (Either NREM 310 or MATH 140 or MATH 373, and NREM 301; or consent)
• NREM 664 Small Watershed Modeling (CEE 424 or concurrent or GG 425 or concurrent or BS degree from NREM, or consent)
• NREM 677 Remote Sensing of the Environment (1 Physics course (e.g. PHYS 151), 1 calculus course (e.g. NREM 203), and 1 statistics course (e.g. NREM 310), or consent)
• NREM 691 Advanced Topics in NREM: Land System Science (Graduate standing or consent)

(d) Land & Water Resource Management (pre-requisites) ** = Currently not being offered

• NREM460/TPSS 450 Sustainable Nutrient Management in Agroecosystems (NREM 304 and CHEM 161)
• NREM 612 Predicting & Controlling Degradation in Human-Dominated
Ecosystems (NREM 301 and 304 (or equivalent) and 600)

- **NREM 631 Sustainable Agriculture Seminar** (none)
- **NREM 662 Watershed Hydrology** (NREM 203 or equivalent and 304 or equivalent; or consent)
- **NREM 691 Advanced Topics in NREM: Quantitative Ecosystem Carbon**

- **BOT/ZOOL 450 Natural History of Hawaiian Islands** (1 semester of biological sciences)
- **GEOG 405 Water and the Environment** (Pre: 101 or 300 or 401 or 402 or MET 101 or MET 200 or MET 302 or MET 303 or MET 310, or consent. DP)
- **GEOG 423 Human Dimensions of the Coastal Ocean** (Junior standing or consent)
- **GEOG 618 Human Environment Systems** (Graduate standing or consent)
- **HWST 457/BOT 457 ʻĀina Mauliola: Hawaiian Ecosystems** (HWST 107, BOT 105, and Junior standing; or consent)
- **HWST 459/BOT 459 Strategies in Hawaiian Resource Use** (HWST 457 or BOT 457 (or concurrent), or consent)
- **HWST 650 Hawaiian Geography and Resource Management** (HWST 107, 270, 341 (or concurrent), 342 (or concurrent), and one of the following: 343 (or concurrent) or 390 (or concurrent) or 490 (or concurrent))
- **LWEV 588 Legal Aspects of Water Resources and Control** (None)
- **OCN 457 Coastal Ecosystem Ecology** (OCN 201, 201 Lab, and OCN 310)
- **ZOOL 410 Corals and Coral Reefs** (BIOL 265)
- ****NREM 463 Irrigation and Water Management** (NREM 203 (or equivalent) and NREM 304 (or equivalent), or consent)
- ****NREM 660 Hydrologic Processes in Soils** (None)
- ****NREM 461 Soil and Water Conservation** (NREM 301 or 304)
- ****NREM 665 Coastal and Wetland Ecology and Management** (None)
- ****NREM 467 Natural Resource Conservation Planning** (None)