

McMASTER UNIVERSITY
Ontario Universities Program in Field Biology

Course Title:	Subtropical Ecology: Biodiversity and its Sustainable Utilization	
Instructor(s):	J.P. Xu (jpxu@mcmaster.ca; 905-525-9140 x27934) Chad Harvey (harvech@mcmaster.ca; 905-525-9140 x21565)	
Dates:	May 3 – May 16, 2017 (3 units credit)	
Location:	The National Tea-Oil Tree Breeding Center in Jiangxi Province and Zhangjiajie National Geological Park in Hunan Province, China. The two sites are about 550km from each other, about 6h travel.	
Cost:	<p>\$1,850 (\$350 deposit to home university; \$1,500 balance).</p> <p>Included: local transportation within Hunan and Jiangxi, food, lodging, experimental supplies, and park entries.</p> <p>Excluded: airfare from Toronto to Changsha, Hunan and back (to be arranged by student, estimated at ~\$1,500); VISA application fee to China (~\$150); overseas' travel and health insurance (check with parents' plan); sightseeing in other parts of China (cost varies)</p>	
Prerequisites:	<p>Students should be finished with one year of university education and should have taken at least one course in general biology.</p> <p>NOTE: Participants must be prepared for moderately strenuous hiking. Hikes may take several hours, sometimes up steep slopes, in very hot weather.</p>	
Enrolment:	12 minimum/18 maximum students (12 reserved for McMaster)	
Description:	<p>This course has two broad objectives: (a) to have a first-hand experience and understanding of biodiversity in subtropical ecosystems, and (b) to learn and evaluate ecosystem services. To achieve the first objective, students will be exposed to the diversity of ecological niches in the subtropics, and the diversity of plants, insects, and fungi in two major types of ecosystems (natural and artificial plantations). One ecosystem is around the National Tea-oil Tree Breeding Center in Jiangxi where both virgin forests and a diversity of agricultural and forestry practices are found and where wild monkeys still roam. The second type of ecological system is around Zhangjiajie National Geological Park in Hunan where stunning geological formations create a diversity of ecological niches that support many unique fauna and flora. To achieve the second objective, we will use a mixed approach of literature presentations, surveys and field observations, and problem-based learning (PBL) to understand biodiversity assessment, the use of biodiversity by the indigenous people, the threats that the biodiversity faces, and how best to maintain their sustainable utilizations. A series of papers relevant to this course will be distributed to students by March 2017 to familiarize students with the background and issues to be discussed.</p>	
Evaluation:	<p>Tentatively consists of the following:</p> <p>Individual presentation on a paper related to biodiversity</p> <p>Field journal and field records (completeness 5%; neatness and readability 10%; accuracy and scientific value 10%; creativity, application and reflection 5%)</p> <p>Lab report based on the field survey data</p> <p>Participation in field work and discussions</p> <p>Exit oral interview</p>	<p>15%</p> <p>30%</p> <p>25%</p> <p>15%</p> <p>15%</p>

***\$350 Deposit is due at time of registration.

Tuition at your home institution is *in addition* to any field module costs.

Students who drop a field course should not expect a refund of any field course costs.

Students are encouraged to purchase cancellation insurance if airline tickets are required.

Students are responsible for all fees incurred by the home or host university due to any bounced cheque.