



**Habitat Conservation and Mountain Ecosystems:
The Nepal Program
Fall 2023
September 29 – November 11**

ACADEMIC SYLLABUS

Faculty:

Chris Carpenter, Ph.D.

Contact Hours: We will all be in close contact, meeting every day throughout the course. There will be several “check-in days” where we will schedule student-faculty meetings. If you would like to have a meeting outside of those times, you can certainly make an appointment or find an appropriate available time, and we are happy to oblige.

Class Meetings: This Wildlands Studies Program includes seven days per week of instruction and field research, with a little bit of free time on most days. While in the field, we may schedule a few rest-days, but there will be academic work to do on those days as well. Faculty and staff work directly with students 6-10+ hours a day and are available for tutorials and coursework discussion before and after scheduled activities. Typically, activities planned each day begin at 6:00 am and finish at after dusk, with breaks for meals. Class presentations are usually scheduled for the late afternoon, and we try to keep the evenings free for discussion or study. When in the backcountry or at a field site, our activities may start as early as 4:00 am or end as late as 10:00 pm (e.g., for wildlife observation). It is necessary to be flexible and accommodate a range of class schedules.

Course Credit: Wildlands Studies students receive credit for three undergraduate courses. These three courses have distinct objectives and descriptions, and we integrate teaching and learning through both formal learning situations (lectures and seminars) and field surveys. Academic credit is provided by Western Washington University. Extended descriptions follow in the course description section of this syllabus.

1. **ESCI 497T, Environmental Wildlands Studies (5 quarter / 3.35 semester credits)**
Field-based course studying the environmental problems affecting the natural and human-impacted ecosystems of our study region, including the role of human interactions.
2. **ESCI 497U, Environmental Field Survey (5 quarter / 3.35 semester credits)**
Field-based course conducting on-site examinations and analyses of environmental problems affecting wildlands and wildlife in our study region.
3. **ESCI 497V, Wildlands Environment and Culture (5 quarter / 3.35 semester credits)**
Field-based course involving on-site research in our field location, studying the relationships among cultural groups and the environment. Using region- and culture-specific case studies, students assess historical and current cultural and environmental uses of wildland and/or wildlife communities. The course examines outcomes of environmental policies and wildland/wildlife management, including both sociological and natural consequences.

Readings: We will send you a Course Reader about 2 weeks before the program starts. You will receive it as a link in an email that opens a folder in Dropbox.com, which you can then download. This folder contains the readings for the class. Readings include selections from academic primary literature, book excerpts, selections from the popular media, and other documents. Field guides and textbooks supplement our field activities and are an important source of information. While in the field, we will carry a shared reference library of useful texts and articles, either on paper or on an electronic device.

Contents of this syllabus:

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I. Program Overview

After an orientation in Kathmandu, our Wildlands Studies Nepal Program embarks on an extended field study excursion to the plains, foothills, and high mountains of central Nepal.

As currently planned, we will start our program in the Middle Hills of the Himalaya to the west of Kathmandu and will trek for 30 days in the mountain backcountry. Our focus will be the Manaslu Conservation Area, which includes two valleys that are scenic, ecologically, and biologically diverse, and deeply sacred to their local residents. Despite their cultural and conservation value, these trans-Himalayan valleys are challenged by the sorts of transitions taking place all over the Himalayan region. Road construction is enabling access to more visitors than ever before, while local people who know that landscape best are using the same roads to leave the area, seeking educational and economic opportunities in Kathmandu and abroad. Our field studies will take us from subtropical elevations of less than 3000 feet, where villagers will be preparing to harvest their summer crop on terraced hillsides, through dense temperate forests to alpine and periglacial zones that require resident plants and animals to possess a host of specialized adaptations. Weather permitting, we may cross Larkya La to finish our mountain field excursion in the eastern part of the Annapurna Conservation Area. During this portion of the program, we will be adjacent to some of the highest, most stunningly spectacular mountains in the world.

The final part of the program will happen in Chitwan National Park, in the near-tropical lowlands of Nepal, a forest enclave that supports populations – some stable, some dwindling – of rare, charismatic animals like Asian One-horned rhinoceros, Asian bison, Bengal tiger, gharial crocodile, and several species of rare vulture. Having become acquainted with the Middle Hills and High Himalaya, Chitwan offers an ideal capstone to the course by showing us Nepal's less-known lowland ecosystems, with their monsoon forests, grassland flood plains and abundant wildlife. At the very end of the program, we will return to Kathmandu and wrap things up.

Because the Nepal Himalaya are so steep and tall, it is possible to trek into places where subtropical river valleys cut between ridges and summits whose upper elevations hold permanent ice fields. Our field excursion, primarily on foot, will begin at down low (about 2000 feet elevation), where there is a strong cultural component and an opportunity to learn about traditional farming methods as well as middle elevation habitats and the wildlife they support. We will also witness rapid social changes that are now underway in the Himalayan foothills of Nepal, with road construction, more off-farm economic opportunities, and less direct reliance on natural resources for subsistence livelihoods. After some days at the lower elevations, we plan to ascend to the conifer and rhododendron forests and ultimately to the alpine realms for which the Himalaya are renowned. If time and weather permits, we may proceed to a mountaineering base camp at the fringe of large, active glaciers. The ecological amplitude present in this area, an unbroken transect from near tropical to ice-bound, offers the potential for fascinating and informative ecological field studies.

Much of our field study will focus on the biological and physical geography of critical Himalayan habitats and the wildlife – plant, insect, and vertebrate – that depend on them. Fall is the season that follows the summer monsoon rains, so we are likely to experience the mountain landscape at its greenest, with clear skies much of the time and lots of agricultural activity as crops are brought to harvest. Regrettably, Himalayan wild mammals have become rare in recent years. However, traditional restrictions on hunting in the valleys of Manaslu mean that some species are easier to observe here than in other parts of Nepal. Whether or not we see them, the animals are present, and we may be able to glean information about their habits and distribution by looking for signs. Meadowed alpine slopes support a growing population of wild Himalayan tahr and blue sheep (spoiler, not really blue) that feed a small snow leopard population, and we may see evidence of both. Additionally, a group like ours, with mobility and time in the field, can provide useful information about habitat condition and resource abundance for focal wildlife species, both plant and animal.

Human ecology is vitally important to understanding the Himalayan region. The Himalaya of eastern and central Nepal is inhabited by several distinct ethnic groups whose ancestors migrated from the Tibet Plateau centuries ago, bringing a tradition of Tantric Buddhism and animal husbandry. In these valleys, local people grow some highland crops like winter wheat and potato, but they also have livestock herds that roam to high elevation during summer. We will plan to meet villagers whose subsistence lifestyles range from settled, terraced agriculture at the lower elevations to pastoralism in high inner valleys. Lifestyles are changing rapidly in the Nepal Himalaya, as they are everywhere, and some of the anthropological generalizations that may have been apt in previous decades no longer ring true today. This bears importance to our field study because the evolving lifestyles in the region may affect their long-term sustainability.

Our days begin early, with fieldwork or trekking if we need to move camp. Some days are physically demanding, but we try to pace the activities so that there is enough time to see and learn as much as possible. In the course of a day, we may meet with local people, observe wildlife, or follow up on the types of interesting and unexpected field observations that are frequent in the Himalayan backcountry. Come late afternoon, there will be time to recap and review our progress, and there will be a presentation or group discussion on some aspect of Himalayan ecology. The curriculum of the Wildlands Nepal program includes regular assigned readings, and each student will be responsible for giving one presentation to the group on a topic of interest to them. As mentioned, we will carry a compact, portable library of documents about the Himalayan region and one tent big enough to hold the whole group when we want to have class and it's cold or wet outside.

II. Learning Objectives

Classroom learning can give the impression that different areas of knowledge are isolated from one another. In the field, the boundaries that separate 'subjects' like wildlife, climate, earth science, conservation, and cultural ecology tend to melt away. With some guidance, this information – in its raw, wild, unparsed form – can really enhance and vitalize subjects that may seem dry in a pure classroom context. The physical, biological, and cultural environment of the Himalaya is our text, and our primary academic objective is to teach team members to read this text critically.

One focus of this program is for students to learn firsthand about the physical geography and ecology of Himalayan habitats that are biologically diverse, limited in distribution, and hold great conservation significance. Examples include subtropical broadleaved forests, subalpine conifer forests, and alpine habitats that contain glaciers coming from some of Earth's highest mountains, but whose boundaries are being affected by climate change, now a palpable thing in mountain Asia. These habitats support 'flagship' mammal species like red panda (present at low density in the wet, middle elevations), blue sheep, Himalayan tahr (most abundant in the alpine meadows and periglacial habitats above 13,000 feet elevation), and snow leopards (a top predator at the alpine elevations). Except for the blue sheep and tahr, these species are really hard to see in the wild. Their signs, however, may be evident in the form of tracks, scat, and nesting sites (for the red panda). Our field studies will not target a particular species, instead, we will focus on the habitats required for survival of viable populations and the conservation measures that may or may not be effective in ensuring their long-term survival.

The lifestyles of the mountain people in eastern Nepal are both fascinating and ecologically informative. How might a family keep the monkeys out of their cornfield, or get water to a patch of good land that happens to be at the very top of a hill? When does it make sense to use dung for fertilizer or to burn it as cooking fuel? How does a community decide which forest resources to exploit and which to conserve, and how much does each family take for itself? What do you do with a crop surplus when the nearest market is three-days walk on a twisty mountain trail? Why are people having so few children, compared to previous generations, and choosing to educate them in distant cities at great expense? What are the cultural implications of this trend? How does a family manage agricultural risk when crop failure can mean intractable debt, displacement, or famine? How does road construction into your homeland affect the life choices of your family members? Confronting these issues and discussing them with the local people provides a learning experience that is simply not available in a more conventional academic setting.

Following this program, students should have a working knowledge of and experience in:

1. **Ecology of Mountain Environments.** How the physical environment controls patterns of species richness and species endemism. How organisms and communities specialize to the extreme conditions of the high Himalaya. Students will also gain knowledge about how the expansive elevation gradient in this region creates disparate environments and influences adaptation.
2. **Ecology of wild vertebrates (mammals and birds) of the eastern and central Nepal Himalaya.** The Nepal Himalaya is a center for bird diversity and supports numerous range-restricted bird species. It also supports several rare mammal species like snow leopard, blue sheep, and red panda. The ecology and distribution of these species and the conservation of their habitats will be one special area of emphasis during this program.
3. **Wildlife Management.** Studying habitat and conservation methods employed to protect wildlife in the Himalaya of eastern Nepal, we will learn important principles that underlie effective community-based conservation. Our visit to Chitwan National Park will provide another excellent opportunity to learn about wildlife conservation in Nepal.
4. **Physical geography of the Himalaya.** Processes of mountain building and erosion are expressed vividly in the dynamic Himalayan landscape. Students will learn how tectonic activity and the powerful South Asian monsoon feedback on one another to control landscape evolution in the Himalayan region.
5. **Human ecology.** The Nepal Himalaya is one of Asia's most culturally diverse regions. Several distinct languages may be spoken in the same river valley, and local people display a profound depth of knowledge about the environment in which they live. Systems of agriculture are highly evolved and locally diverse due to the historical absence of roads and are prone to change as road construction has begun in many areas. Immersed in the culture and working alongside local residents, our students will stand to gain a significant appreciation and understanding of the mountain peoples of the Nepal Himalaya.
6. **Mountain hazards, poverty, and development.** Subsistence agriculture is still important in the Nepal Himalaya, but ongoing road construction enables cash-crop agriculture and a range of economic alternatives, each with different environmental and social outcomes. Our experience over three decades in Eastern Nepal will provide students with unique insight into these trends, which pervade the developing world.
7. **Strategies for community-based habitat conservation.** Nepal promotes the idea that natural resources are managed best by local stakeholders. In the mountains of Nepal, we can take a critical look at how effectively these ideas are being put into practice.
8. **Nepal area studies.** The landscapes, cultures, and history of Nepal are fascinating on their own. Nepal's story also provides valuable insights into the challenges faced by a small country, sandwiched between the two of the world's most populous countries, and under the influence of wealthy donors with their own agendas.
9. **Field identification of plants.** We will use field guides and local expertise to identify plant species that grow at various elevations in our study area, including semi-deciduous forests at low elevation, broad-leaved evergreen forests at middle elevation, and subalpine and alpine habitats at high elevation.

These topics will be addressed through structured presentations and discussions, course readings, field activities, visits with local experts, exposure to ongoing research, extended backcountry excursions, and field research projects. The course generally progresses from faculty-led instruction at the beginning (lectures and readings) to student-led critical evaluation, analysis, and synthesis in the latter part of the course. Our overarching goal is to have students complete the course with comprehensive knowledge about the Manaslu region of the Nepal Himalaya, together with an improved, critical understanding of ecological, geological, and social sciences, so they can better evaluate environmental scenarios down the road.

III. Course Descriptions

We teach these three courses in an integrated format in the field. However, students will receive transcript credit for the following three courses, introduced on page 1:

ESCI 497T, Environmental Wildlands Studies (5 quarter / 3.35 semester credits)

Field-based course studying the environmental problems affecting the natural and human-impacted ecosystems of our study region, including the role of human interactions.

Experience/Activities: This course will teach students about the physical and biological environments of the Nepal Himalaya. We will focus on the biological ecology of this area, with special emphasis on how ecosystems change with elevation. These changes are functional (morphology and phenology of dominant plant groups, relative importance of invasive species) and taxonomic (biogeographical affinities of the dominant groups). These changes are expressed at the community level, with measurable changes in species density along the elevation gradient for many apparent groups, such as birds and vascular plants. We will also consider physical geography, in terms of landscape evolution, in a tectonically active (rapidly exhuming, rapidly eroding) mountain region, and discuss some of the fascinating new insights regarding the interplay between mountain building and atmospheric processes. Mountain climates and the critical role of the South Asian Monsoon is another important subject we will examine. Sometimes landscapes in the Himalaya change catastrophically with glacial lake outburst floods and massive landslides.

Outcomes: Students will learn how the composition of an ecological community and the characteristics of its component species relate to environmental variables that change with elevation. Students will learn to recognize typical mountain habitats in the Nepal Himalaya, including subtropical, temperate, and subalpine forests, alpine rangelands, and periglacial habitats, and to understand how these differ ecologically from their counterparts in Europe and North America. Students will be instructed in methods of field observation and how to recognize important taxonomic groups in this diverse part of the world. We will also consider the natural history and ecological impact of invasive plants. At higher elevations, we will consider the ecology of Himalayan tahr, blue sheep and their predators, the snow leopard, and the common leopard. We will also evaluate how severe, high elevation climates and distinctive mountain processes, like landslides and stream erosion, affect the ecosystem. The Himalaya are an ideal place to learn about dynamic processes of mountain building through plate tectonic activity because these processes are very much at work in the Himalaya today. Instructors will teach the students through structured presentations, but students will also learn through direct observation and informal discussion.

Evaluation/Assessment: Students will receive two examinations and one or two short quizzes. Each student is also expected to give an oral presentation to the group. Success will require consistent attendance and motivated participation in class activities. Students are expected to demonstrate knowledge of ecosystems, natural history, important species, and natural processes. Students will also work together to keep a species list of selected plant and animal taxa encountered in the different elevation zones we visit. Examinations and quizzes 70%; Oral Presentation 30%.

Textbooks: Course reader, species identification manuals, taxonomic keys, reference books and articles.

ESCI 497U, Environmental Field Survey (5 quarter / 3.35 semester credits)

In this field-based course, we conduct on-site examinations and analyses of environmental problems affecting wildlands and wildlife in our study region.

Experience/Activities: Those students enrolled in the Wildlands Studies program in the Himalaya have, with their instructors' help, been collecting data on the forests of this region for nearly two decades. This represents a significant data set that has led to several peer-reviewed publications^{1,2,3}, and which adds value to understanding the ecosystem processes at work in this mountain region. This fall, we focus these efforts on an assessment of forest habitat at elevations that range from 3,500-13,000 ft, where central Nepal holds some of the most diverse temperate forests on Earth. Students will contribute to this effort by identifying focal tree species and estimating plant species richness and habitat quality in forest plots located at various elevations. These forest plots will be geolocated and photographs will be taken for future comparisons. We know from experience that this project is both demanding and valuable for students. It also provides students with the opportunity to observe and understand the forest ecosystem in more detail than they might otherwise.

Outcomes: Students will conduct structured fieldwork including data collection and analysis as described above. This will require participation in instructional presentations, a mastery of equipment and techniques commonly employed by ecologists working in the field, and an overall understanding of the relevance of the task. Students will work together in teams to complete this part of the course, but each student will have specific responsibilities. Students will become well-enough acquainted with the tree flora of the Nepal Himalaya to identify common taxa to the genus level. Since these taxonomic groups occur in mountains worldwide, and since plant identification skills are globally applicable, the skills learned when we study Himalayan forests will make our students better field biologists wherever they work in the future. Students will also improve their ability to infer mammal distribution and behavior from indirect evidence such as footprints and scat. More generally, students will obtain a practical understanding of ecosystem processes and how they are affected by the many disturbances that occur in the Himalaya, both 'natural' and anthropogenic. These practical insights will be used as a platform to facilitate discussion about future trends in wildlife conservation, especially how an ongoing change in atmospheric composition is likely to affect mountain ecosystems, either through temperature change or changes in the intensity and timing of monsoon rainfall.

Evaluation/Assessment: Students will receive two examinations and one or two short quizzes. Success will require consistent attendance and motivated participation in class activities. Students are expected to learn and apply their knowledge of ecosystems, natural history, focal species, and natural processes to data collection efforts in the field. These efforts include surveys of plant diversity, observation of mammal signs, and a basic understanding of how invasive plant species change Himalayan ecosystems. Students will be responsible for keeping accurate records of focal plant and animal taxa they encounter within the project area. Examinations and quizzes 40%; participation in field assessment of forest habitat 40%; participation in the analysis of forest habitat 20%.

Textbooks: Course reader, technical literature, field identification keys (both published and those prepared by course instructors), articles, and working papers prepared by course instructors.

¹ Author(s): Chris Carpenter and Robert Zomer. 1996. Forest Ecology of the Makalu-Barun National Park and Conservation Area, Nepal. *Mountain Research and Development* 16(2): 135-148.

² Chris Carpenter. 2005. The environmental control of plant species density on a Himalayan Environmental gradient. *Journal of Biogeography* 32: 999-1018.

³ Carpenter, Chris, Ken Bauer, Ramesh Nepal. 1995. Report on the Flora and Fauna of the Kanchenjunga Region (II). *World Wildlife Fund Nepal Program, Report Series #14*. Kathmandu, Nepal

ESCI 497V, Wildlands Environment and Culture (5 quarter / 3.35 semester credits)

Field-based course involving on-site research studying the relationships among cultural groups and the environment. Using region- and culture-specific case studies, students assess historical and current cultural and environmental uses of wildland and/or wildlife communities. The course examines outcomes of environmental policies and wildland/wildlife management, including both social and 'natural' consequences.

Experience/Activities: This course will consider the human component of the Nepal Himalaya, as manifested through traditional cultural institutions, environmental management practices, and anthropogenic impacts on the ecosystem. Students will work and travel together with members of several indigenous culture groups, with the opportunity to learn a little about their traditional ways and how they are transitioning into a more globalized milieu. These people include ethnic Tibetans who inhabit the higher elevations and Hindu groups that have inhabited the Middle Hills of Nepal for many generations. Local environmental impacts are manifold. Examples include road construction and the conversion of traditional agriculture to cash crops. Prior to the Covid-19 pandemic, global mountain tourism, mountain-climbing and its infrastructure had begun to exert a profound effect on life in the Nepal Himalaya. Although the droves of foreign visitors have yet to come back, there has, over the past two years, been a complimentary upsurge in domestic tourism. Students will have the opportunity to observe these phenomena and their consequences, which will provide an important foundation to both structured class presentations and impromptu discussions.

We will consider global impacts and their effect on the Himalayan environment, taking note of the fact that the water catchment and soil erosion from Tibet and the Himalayan region can directly affect the lives of more than a billion people who inhabit the plains downstream. The effect of climate change on the Asian monsoon is of particular concern. Evidence shows that monsoon rainfall has become more sporadic in recent decades, but the theory to support and model this empirical observation remains very rudimentary. The effect of climate change on Himalayan glaciers is another significant, contentious topic that we'll explore during the course.

The regions of Nepal where our program will take place are developing a solid tradition of community forestry, community-based conservation, and tourism management. There are many obstacles and challenges to effective resource management at the community level, but local stakeholders are knowledgeable and invested in the health of their environment. The progression of this idea of community-based conservation is a fascinating case study in sustainable mountain development. Program members will work in teams to compare the current situation to observations made by previous groups of Wildlands Studies students that visited Nepal in the past. We hope that this comparison to our pre-millennial baseline will provide useful insights about how to manage the mountain regions of Nepal.

Outcomes: Students will confront the differences between how Western visitors to the Himalaya idealize the culture and the reality of what it is like to practice a subsistence lifestyle on steep slopes or to transition from a heritage in the mountains to a new livelihood based on wage labor and urban values. Students will learn the history (and pre-history) of Himalayan cultures, how different groups originally settled their homelands, and a sense of the various skills required to endure in this landscape for generations. Students will come to appreciate why mountain people tend to be risk-averse and the degree of stamina and intelligence needed for a self-sufficient mountain lifestyle.

Since this course considers human ecology, structured learning will include presentations by course instructors, supplemented by discussions with local experts, national park managers, and stakeholders in the communities that we visit. Students will gain experience interviewing local people (in translation) and learning how to frame useful questions in this context. Students will read from the peer-reviewed literature on the local impacts of anthropogenic disturbances both regional and global in scale and evaluate contrasting positions in the debate as to whether hill slope agriculture contributes to downslope erosion (a big, contentious subject among scholars of Himalayan resource management). Students are required to be engaged during the discussions, to do the readings, observe the purported impacts with a critical eye, and learn skills of field appraisal.

Evaluation/Assessment: Students will receive two examinations and one or two short quizzes. Success will require consistent attendance and motivated participation in class activities. Students are expected to interact with local people, both among our staff and residents in the villages we visit, and to make critical, but non-judgmental, observations of local customs and land-use practices. We will share these ideas and students may write short essays on this subject. Examinations and quizzes 40%; participation in field study comparing the current situation in eastern Nepal to that of the late 20th Century 30%; participation in discussions and workshops that focus on the cultural component of the eastern Nepal Himalaya 30%.

Textbooks: Course reader and peer-reviewed literature from the class library.

IV. Assessment

The following is an overview of the academic requirements for the program. Some of the assignments are ongoing (student presentation, course readings, and field studies); others have specific due dates (midterm and final examinations). Due dates will be reconfirmed (or maybe adjusted) once the course begins. Final grades for each course listed above will be based on the following items:

Course Number	Assessment Item	Date Due	% Grade
ESCI 497T	Mid-Term Examination	Oct. 20	30
	Final Examination	Nov. 10	30
	Short quizzes	TBA*	10
	Oral Presentation	Variable•	30
ESCI 497U	Mid-Term Examination	Oct. 20	20
	Final Examination	Nov. 10	20
	Participation in group field project	Oct. 20	40
	Participation in data analysis	Nov. 9	20
ESCI 497V	Mid-Term Examination	Oct. 20	15
	Final Examination	Nov. 10	15
	Short quizzes	TBA*	10
	Participation in group field project	Nov 8	30
	Participation in data analysis (management comparison)	Nov 10	30

* Quiz dates are at the instructors' discretion and may or may not be announced in advance.

• The date of each student's oral presentation will be assigned near the beginning of the program

Quizzes will cover material that has been presented in recent days. They will be of short duration and may or may not be pre-announced. We anticipate that there will be one or two quizzes during the program. Examinations are based mainly on presentation material, including presentations by course instructors, guest lecturers, and fellow students. An understanding of the material from the readings may also be required to gain full credit.

Examinations are 'closed-book' and consist mainly of objective questions, with a few longer, more subjective questions in which students are asked to evaluate an issue. Students are not time-limited on the exams. Exams are graded anonymously. We hope to complete two group projects on the Nepal Program. The first will be a

habitat survey, including vegetation transects, species inventories, and interviews with local villagers whose lifestyles may be of significance to habitat conservation. The second project will be a comparative study, based on replicate photography and past field notes, of trail and tourism infrastructure in the mountains of eastern and central Nepal today versus twenty years ago. Field data will be collected by students working in small teams under the supervision of course instructors and local specialists. Data will be compiled by team members, and we hope there will be time at the end of the program to perform an initial analysis of our results.

V. Grading Scheme

To convert final grade percentages to letter grades for each course that will appear on your transcript, we will use the following grading scheme:

Letter grade	Percentage
A	92.5- 100+
A-	90.0- 92.4
B+	87.5- 89.9
B	82.5- 87.4
B-	80.0- 82.4
C+	77.5- 79.9

Letter grade	Percentage
C	72.5- 77.4
C-	70.0- 72.4
D+	67.5- 69.9
D	62.5- 67.4
D-	60.0- 62.4
F	< 60.0

VI. General Reminders

Academic Integrity is as relevant in this field study course as it is at your home institution. Plagiarism, using the ideas or materials of others without giving due credit, cheating, or putting forth another student's work as your own, will not be tolerated. Any plagiarism, cheating, or aiding another to cheat (either actively or passively) will result in a zero for the assignment. Cases of academic dishonesty may be reported to your home institution.

Assignment deadlines are necessary so course instructors can get the grading done on time. These deadlines need to be enforced so that diligent students aren't penalized for being punctual. Therefore, work submitted late may receive a lower grade than equivalent work submitted on time. If you think circumstances may keep you from completing your work on time, talk to the instructor before the assignment is due.

Participation and attendance are crucial throughout this program. Because of the demanding schedule and limited time, all program components are participation-mandatory (unless indicated), and missing class can hurt your grade. Therefore, it is crucial to be prompt and prepared with needed equipment for all activities.

VII. Academic Schedule and Itinerary

The following schedule is an overview, which we intend to finalize in the weeks prior to the beginning of the program. Our program in Nepal is slated to take place in the city of Kathmandu, Manaslu Conservation Area and adjacent foothill regions, Annapurna Conservation Area, and Chitwan National Park. Here's the itinerary, minus specific route information for the trek, which remains under discussion. As with any innovative program in a less-developed part of the world, the schedule and timing will remain tentative until a fairly late date. Please be assured that our program will be fascinating, exciting, and valuable regardless of the specific route. We will share a more detailed trekking itinerary with you once it is finalized.

Date	Activity
9/29	Scheduled arrival to Kathmandu. Meet instructors and staff and transfer to lodge. Welcome comments, orientation, preparations, and cultural activities in Kathmandu.
9/30-10/2	Orientation, preparations, and cultural activities in Kathmandu
10/2-3	Drive to Dhading Besi, our trailhead in a market town in the foothills west of Kathmandu. Overnight camping or in a lodge.
10/3-14	Trek through Nepal's middle hills, <i>en route</i> to Manaslu Conservation Area and its trans-Himalayan Valleys. Route details to be announced.
10/14-29	Explore the middle elevations of Tsum Valley and the middle and upper elevations of the valleys of the Manaslu Conservation Area (details TBA). Approach high peaks, including Manaslu, elevation 8163 meters (26,780 feet).
10/29-11/2	Weather permitting, we'll cross Larkya Pass, into the Annapurna Conservation Area and make our way to our trailhead in the Marsyangdi River Valley.
11/2-4	Visit Pokhara; recap our lessons from the high country. (2 nights)
11/4-8	Chitwan National Park. Ecology and wildlife surveys (3 nights)
11/8-11	Return to Kathmandu by chartered bus (3 nights). End-class activities including recap, exams and farewells to each other and to our Nepali hosts.
11/11	Class finishes. Students depart for home or independent travel.

VIII. Reading List

Here is a sampling from an old Reader from an earlier visit to the Manaslu Himalaya. We'll provide a revised, updated version for the coming Fall 2023 program.

A. Introduction and Kathmandu Valley (Read these before the class starts)

1. The Himalayan Region - an Overview (Himalayan Perceptions Ch. 2)
2. Kathmandu Environmental Outlook (2007)
3. Hindu Gods and Goddesses

B. Chitwan National Park and the Terai Region

4. When, Where and Whom: assessing wildlife attacks in Chitwan National Park
5. India Hunts Man-Eating Tiger Blamed for Thirteen Deaths
6. Revenue Distribution and Park-People Conflict in Chitwan National Park
7. Past, Present and Future Conservation of the One-Horned Rhinoceros in Nepal
8. Humans Versus Elephants: the 3000 year War (Retreat of the Elephants Ch. 2)
9. Dispersal Patterns of Asian Elephant in Relation to Interactions with Humans
10. Conservation of Accipitridae Vultures of Nepal: a Review

C. Himalayan Mountain Region

11. Revolution in Human Evolution - Science 24 July 2015
12. Agrocultural Landscapes (Himalayan Perceptions Ch. 4)
13. Agricultural Land Underutilisation in the Hills of Nepal
14. Role of Mountains in Large-Scale Organization of Asian Monsoon Convection
15. Burhi Gandaki Hydropower Project (Clippings)
16. Who are the Tibetans - Science 2015
17. Beyul of the Himalaya - Nepal, Tibet, India
18. Yaks, Yak Dung, and Prehistoric Human Habitation of the Tibetan Plateau
19. Gifts and Perils of Landslides copy
20. Snow Leopard Survival Strategy - Short Version
21. The Mammalian Fauna from the Central Himalaya, Nepal
22. Genes for High Altitudes copy
23. Depopulating the Himalayan Highlands - Education and Outmigration
24. Settling the science on Himalayan glaciers (Nature 2010)
25. State and Fate of Himalayan Glaciers (Science 2012)
26. Night of Abominable Snowman (Ted Cronin, The Arun)
27. Cronin - One Step from the Moon (Ted Cronin, The Arun)
28. Gorkha Earthquake 2015 - Cause and effect