

## **Traditional Medicine and Healthcare Systems in Madagascar** IPBH-3504 (4 credits)

### **Madagascar: Traditional Medicine and Healthcare Systems**

*This syllabus is representative of a typical semester. Because courses develop and change over time to take advantage of unique learning opportunities, actual course content varies from semester to semester.*

#### **Course Description**

The advent of Western medicine practices in Madagascar during the colonial period brought with them new forms of treatment, and the allopathic medical system became the main official means of healthcare delivery. This simultaneously had detrimental impacts on communities' traditional medicine practices, an integral part of the tradition and culture of the Malagasy, and their healers, diminishing their influences, and disrupting the natural balance in communities' relationships with Nature via the use of biodiversity in healthcare and nutrition, and the coherence of body, mind, and soul. Even though traditional medicine had been practiced in Madagascar since time immemorial, its existence and practice were not officially recognized until late 2007, the post-colonial period, when it was legalized and thus officially recognized.

The course introduces students to the cultural, political, and socio-economic contexts of healthcare in Madagascar, allowing them to understand Malagasy cultural assumptions and practices as they relate to healthcare. It explores the role of post-colonial and contemporary Malagasy politics as applied to healthcare policy and delivery, and the challenges of healthcare delivery, vis-à-vis accessibility, affordability, and availability of services to citizens. Healthcare practices in urban and rural settings are examined to understand how the traditional and allopathic healthcare approaches operate. Classroom and field-based lectures and activities, excursions and site visits are interwoven and complement each other, allowing students to explore and get to grips with how historical circumstances, geography, and demographics shape and inform the provision and delivery of traditional and allopathic healthcare practices in Madagascar.

Could the reliance on traditional medicine's use of local biodiversity complemented by using the allopathic system's pharmaceuticals, provide affordable and effective healthcare, and revitalize peoples' respect for and ability to work with Nature to have a positive impact on the environment? Students conduct carefully designed data collecting exercises during lectures, excursions, and site visits to write and submit a reflective report and present a visual essay based on their experiences during their involvement in the program. Students also write a final

paper and make an oral presentation on a topic of their choice pertinent to the program theme at the end of the term.

### **Learning Outcomes**

Upon successful completion of the course, students will be able to:

- Explain the impact of colonization on traditional medicine practice and traditional healers in Madagascar.
- Compare the similarities and differences between healthcare in traditional and allopathic paradigms as practiced in urban and rural settings.
- Articulate the ethical issues in healthcare delivery with a focus on accessibility, affordability, and availability in urban and rural areas.
- Evaluate the global challenges and opportunities in traditional and allopathic healthcare through the theoretical framework of decolonization.
- Explain the roles of healthcare delivery professionals in the different health systems in the country.
- Describe the modus operandi of an integrated healthcare systems approach to health delivery.

### **Language of Instruction**

The course is taught in English and French (*the academic director serves as a translator when the course is taught in French*) with students being exposed to vocabularies related to course content as well as the nuances of traditional and allopathic healthcare practices through in-country expert lectures held at the “Laboratoire de Pharmacologie Générale, de Pharmacocinétique et de Cosmétologie” (LPGPC) lecture halls situated at the ‘Coline’, University of Antananarivo campus at Ambohitsaina, Ankatso and field visits to a variety of healthcare provision and research centers as well as health resources (remedies) venues.

### **Instructional Methods**

SIT’s teaching and learning philosophy is grounded in the experiential learning theory developed by Kolb (1984; 2015). Experiential learning theory recognizes that learning is an active process that is not confined to the formal curriculum. It is the knowledge acquisition process that takes place beyond the four walls of the classroom setting venturing into the spheres of everyday life outside one's borders (Quansah, 2016).

Instruction combines theory and practice to enable students to gain a solid foundation in the acquisition of knowledge. Students are required to be active listeners by using all their senses to observe, feel, taste, hear, and smell, on a daily basis, the issues of life in a cross-cultural setting as they spend time in different parts of Madagascar (Antananarivo, Ambatomirahavavy, Andasibe, Morondava, Antsirabe, Betafo etc.). Students meet and engage various professionals of the traditional and allopathic medical systems at their practicing sites and research facilities to obtain a much more nuanced picture of the country and its healthcare systems.

Students learn from their urban and rural host families and interact and work with Malagasy students, who provide unique insights and access into Malagasy culture.

**Required and recommended readings are provided under the respective modules.** The readings are meant to enable students to broaden and deepen their knowledge about health systems globally and to eventually place Madagascar's healthcare system in the global context. They are also to help students prepare and be able to engage lecturers and other health professionals that they encounter during lectures and in discussions at field and excursion sites as well as provide them with resources needed to carry out their independent studies.

### **Course Schedule**

*\*Please be aware that topics and excursions may vary to take advantage of any emerging events, to accommodate changes in our lecturers' availability, and to respect any changes that would affect student safety. Students will be notified if this occurs.*

The course is presented in five modules and covers major themes in a classroom seminar setting and through field and site visits, with discussions during the sessions. *Beyond what is listed in the syllabus, supplemental articles may also be distributed to students based on current events and relevancy.*

### **Module 1: People and Biodiversity: The Health Resources-Conservation Relationship**

This module explores Madagascar's biodiversity and its relationship to traditional healthcare. It examines the use of various flora and fauna by indigenous people to meet their health care needs and how this impacts sustainable biodiversity conservation and management.

Students get to understand how this resource-use-biodiversity-conservation conflict is being addressed during the site visits and through the discussions with various stakeholders. Site visits in this module include:

- Petite Vitèsse and Bazar Be, local traditional medicine markets in Antananarivo and Morondava
- Parc Botanique et Zoologique de Tsimbazaza (PBZT), Antananarivo
- Analamazaotra National Park, Andasibe
- Vakona Forest Lodge Lemur Island, Andasibe
- Allée du Baobab, a World Heritage site at Morondava

### **Required Readings**

Quansah, Nat. 2011. The Impact of Biodiversity Conservation on the Practice of Traditional Medicine, Presentation at the *Africa Traditional Medicine Day Celebration, Toamasina, Madagascar, August 31 – September 01, 2011.*

Quansah, Nat., (2001). Pharmacies for life. *Our Planet.* 12(2), 27-28

### **Recommended Readings**

Grifo, F., & Rosenthal, J. (1997). *Biodiversity and human health.* Island Press.

Quansah, N. (2004). The Neglected Key to Successful Biodiversity Conservation and Appropriate Development: Local traditional knowledge. *Ethnobotany Research and Applications*, 2, 89–91. <https://doi.org/10.17348/era.2.0.89-91>

## **Module 2: The Historical Evolution of Traditional Medicine in Madagascar via the Merina Ethnic Group**

This module examines Malagasy cultural and traditional healthcare philosophy, underpinnings, and practices, with an emphasis on the Merina ethnic group. The structure of the ancient Malagasy society in general and the Merina in particular, are examined. The history of the Merina ethnic group is explored and discussed as well as the role and value of traditional medicine and its professionals (traditional healers) in ancient and present-day Madagascar society.

Site visits in this module enable students to trace and understand the historical evolution of traditional medicine in Madagascar. Site visits include:

- Rova Ambohimanga (palace of ancient kings and queens of the Merina kingdom) and Rova Ilafy, an ethnographic museum
- Doany Kingory (a sacred traditional medicine practice spiritual healing center)
- The Betafo Hot Springs Healing Center
- Tritriva Sacred Lake
- The abodes and practicing venues of Reninjazas (traditional birth attendants) and other traditional healers in Andasibe

### **Required Readings**

Pierlovisi, C. & Pourchez, L. 2014. Traditional Medicine in Madagascar - Current Situation and the Institutional Context of Promotion. *Health, Culture and Society*. Volume 7, No. 1:14-27. DOI 10.5195/hcs.2014.176

Rafaramanana Soloniaina. 2023. The historical evolution of Traditional medicine in Madagascar via the Merina ethnic group. Lecture notes. SIT Study Abroad Summer Program, Antananarivo, Madagascar.

### **Recommended Reading**

Solofo Randrianja & Stephen Ellis. 2009. Madagascar A Short History. *The University of Chicago Press*.

## **Module 3: Healthcare Practice in Madagascar through its Political History**

The organization of healthcare systems has a bearing on the accessibility of healthcare services to the citizens of a country. This module introduces students to the cultural and political contexts of healthcare practice in Madagascar as different professionals discuss aspects of the social and political dimensions of healthcare through Madagascar's three main periods: i) before and during the monarchy ii) colonial, and iii) independence to present (post-colonial). During this module, students are exposed to how contemporary Malagasy politics are applied to healthcare policy, service, and delivery in the country. The country's current health

system is regulated by the public health code (Law N° 2011 – 002) which defines the professions and practitioner stands. Power relations in the Malagasy society from historical times to the present and the position of traditional healers in the society are explored and discussed. The different options of healthcare delivery of the country, both allopathic and traditional medical systems, are examined. Providing more options of healthcare delivery in Madagascar (and globally) is discussed in the context of the integrated healthcare system.

Site visits enable students to trace the historical context of healthcare in Madagascar and expose them to the functioning of the healthcare systems with their contrasting structures and facilities and how these influence the service provision and delivery in terms of accessibility, affordability, and availability.

Site visits include:

- Centre Hospitalier Universitaire de Joseph Ravoahangy Andrianavalona (CHU-JRA) in Antananarivo, and the 'Centre Hospitalier Régional de Référence (CHRR) in Morondava, urban public health centers
- The Lutheran Hospital at Ambohibao, an urban private allopathic health center
- Centre de Santé de Base 2 (CSB 2) at Andasibe, rural public primary health center
- Doany Kingory (a Sacred Traditional Medicine Practice Spiritual Healing Center) at Ambatomirahavavy
- Traditional healers' practising sites and abodes at Tanampasika, Andasibe

### **Required Readings**

Andriamparany, Tolotra A. 2019. The organization of Traditional Medicine in Madagascar. Lecture notes. SIT, Antananarivo, Madagascar.

Quansah, Nat. 2021. *The Integrated Health Care System: Meeting the global goal of health for all*. Presentation at the 2<sup>nd</sup> Global Solution Lab Virtual Meeting, June 18, 2021.

Randria, J. Narcisse. 2023. The Practice of Health Care in Madagascar. Lecture notes. SIT Study Abroad Summer Program, Antananarivo, Madagascar.

Rasamindrakotroka, Miora, T. & Rasamindrakotroka, Andry. 2023. Madagascar: The political, socio-economic and health sector policy evolution. SIT Study Abroad Summer Program, Antananarivo, Madagascar

### **Recommended Readings**

Raeburn, J. & MacFarlane, S. 2005. Putting the Public into Public Health: Towards a more people-oriented approach. In Beaglehole, R. ed. *Global Public Health: A New Era*. pp. 243-252. Oxford University Press, Inc., New York, USA

Skolnik R. 2008, Essentials of global health. *Sudbury, Jones and Bartlett Publishers*, p. 322

World Health Organization, 2013. Traditional Medicine Strategy 2014 – 2023

## **Module 4: Economics of Healthcare Delivery**

The economics of healthcare delivery, and how it influences access to healthcare by class, gender, and residence is examined in this module. It explores the economics of care and notes that healthcare systems that rely on economic models, rather than on the health of individuals and communities, have had negative impacts on society, health-wise and economically. The high costs of the services and resources of the modern medical system and the main healthcare delivery service of the country negatively impacts the health of the individual, especially low-income people and their families because of non-affordability which translates to non-accessibility and non-availability of much-needed appropriate health services.

The module is completed with site visits that enable students to come to grips with some of the economic challenges of Madagascar's healthcare system and how these affect the delivery of health care services as well as the ways these challenges are being addressed. Site visits include:

- 'Société de Transformation Malgache et d'Exportation' (SOTRAMEX), a private company focused on medicinal plant exploitation for commercial purposes, research and community development
- Petite Vitèsse and Bazar Be, traditional medicine remedies markets in Antananarivo and Morondava, respectively
- 'Centre Hospitalier Universitaire de Joseph Ravoahangy Andrianavalona (CHU-JRA) in Antananarivo, and the 'Centre Hospitalier Régional de Référence' (CHRR) at Namahora, Morondava, public allopathic health centers
- Lutheran Hospital at Ambohibao, private allopathic health center
- Centre de Santé de Base 2' (CSB-2), Andasibe, public primary health center

### **Required Readings**

Andriamparany, Tolotra A. 2019. Stakes of Traditional pharmacopoeias and the place of phytomedicines. Lecture notes. SIT, Antananarivo, Madagascar

Quansah, N. 2023. Poverty and its relation to health care. Lecture notes. SIT Study Abroad Summer Program, Antananarivo, Madagascar

Rakoto Alson O. 2023. Health Financing in Madagascar. Lecture notes. SIT Study Abroad Summer Program, Antananarivo, Madagascar

### **Recommended Reading**

Piel, A. 2005. The Coming Storm: Health System Planning Versus Free Market Enterprise. In *Understanding the Global Dimensions of Health*. Gunn, S. W. A., Mansourian, P. B., Davies, A. M., Piel, & Sayers, eds. (2005). Springer.

## **Module 5: Rationalization of Traditional Medicine**

Assuring the safe use of traditional medicine remedies has been a concern of users of these remedies as well as the skeptics of the traditional medical system. Standardization is seen as a means to achieve this goal of ensuring safe use of these remedies. The module deals with standardizing remedies of traditional medicine and explores the ways to authenticate and valorize traditional medicine practice.

Site visits provide students the opportunity to meet and discuss with professionals dealing with issues pertaining to the rationalization and authentication of traditional medicine in the country. Site visits include:

- Centre National de l'Application de Recherche Pharmaceutique (CNARP), a public-funded pharmaceutical research center at Androhibe
- Société de Transformation Malgache et d'Exportation (SOTRAMEX), a private company focused on medicinal plant exploitation for commercial purposes, research and community development.
- Laboratoire de Pharmacologie Générale de Pharmacocinétique et de Cosmétologie (LPGPC), public-funded laboratory at the University of Antananarivo, Antananarivo

### **Required Reading**

Randrianavony, P. 2023. Rationalization of the uses of medicinal plants. Lecture notes. SIT Study Abroad Summer Program, Antananarivo, Madagascar

### **Recommended Reading**

Randrianavony, P., Quansah, N., Djoudi, R., Quansah, N. A., & Randimbivololona, F. (2020). Anticonvulsant Activity of Hydroalcoholic Extract of *Ageratum Conyzoides* L. (Asteraceae) in Mice. *European Scientific Journal ESJ*, 16(18).  
<https://doi.org/10.19044/esj.2020.v16n18p114>

### **Assignments and Evaluation**

The assignments are designed for students to study, reflect upon, and draw conclusions about particular issues of healthcare practices based on their various experiences during lectures and the diverse site visits as well as at homestays and other activities that they engage in.

#### **1. Traditional Medicine Research Paper (35%) - (see program calendar for due date)**

Students explore the literature on a topic of their choice and devise a questionnaire to use to collect information via interviews, conversations, and participant observations in homestays, during lectures, excursions, and site visits. Students critically analyze their data, write and submit a **6–8-page report** of their findings. The paper must be written in Microsoft Word format, Times New Roman or Arial font, a font size of 12, and 1.5 line spacing. References must follow APA citation style. *Students are encouraged to discuss their research topic with the AD from the start of the program.*

#### **2. Presentation -10% - (see program calendar for due date)**

Students will prepare and give a 15-minute presentation - PowerPoint or any form that they see fit - to share the findings of their Traditional Medicine Research Paper with peers and invited guests. There will be an additional five minutes for questions and answers after each presentation.

#### **3. Reflection Journal Report (20%) - (see program calendar for due date)**

Students are required to keep a Reflection Journal - physical and/or digital - for scheduled site visits. Data from the Reflection Journal will serve as the basis for the Visual Essay assignment. For each visit you should make an entry of at least half of an A4 page or capture images

(photos/videos/artifacts) that you can use for your visual essay; you may want to write more to delve into certain issues. These logs are intended to help you document your work as well as step out of it briefly for reflection, analysis, and critique of what you are learning. You should include both documentation of what you've accomplished and reflective thinking about why and how what you're experiencing is/could be important, to yourself, the organization, the other participants, or larger local/global issues.

The **Reflection Journal Report is a 1-2-page synthesis essay** of your Reflection Journal that provides a deeper understanding of your experiences over the course of the program. It must be written in Microsoft Word format, Times New Roman or Arial font, a font size of 12, and 1.5 line spacing.

#### **4. Visual Essay (25%) - (see program calendar for due date)**

Visual literacy is the set of skills involved in the interpretation and criticism of images. The concept of visual literacy is also the ability to create and use images to communicate. In this assignment you will use data from your Reflection Journal compiled during visits to the various centers and sites to produce a 15-minute PowerPoint presentation *or* a 3-4-minute video of your experiences in Madagascar within the program theme. You may also use images from homestays and other personal encounters where necessary to give context to some of your reflections and arguments. Think carefully about what you want to depict and why – tell a story about the various situations you have been placed into and have created for yourself. What do you want us/others to know about your journey and discoveries with regards to traditional medicine and healthcare delivery as a vehicle for development and social change in Madagascar? You will have an additional five minutes for questions and answers.

#### **5. Participation (10%)**

This includes active involvement in lectures, discussions, readings, and excursions. Assessment of students' participation in the program happens throughout the term and is based on the following criteria:

- Attendance - promptness to class and positive presence in class.
- Active Listening - paying attention in class and during field excursions, asking appropriate questions, showing interest and enthusiasm (this includes body language), entertaining contradictory perspectives.
- Involvement in Class Discussions - either in small or large groups, sharing knowledge. This means challenging yourself to speak up if you usually don't, and also means allowing others to speak if you are a person who tends to dominate class discussions.
- Group Accountability – positive participation in the group during field excursions and classes; not keeping others waiting.
- Displaying Respect – culturally appropriate interaction with hosts, SIT program staff, SIT lecturers and communities.

#### **Attendance**

Due to the nature of SIT Study Abroad programs, and the importance of student and instructor contributions in each and every class session, attendance at all classes and for all program excursions is required. Criteria for evaluation of student performance include attendance and participation in program activities. Students must fully participate in all program components

and courses. Students may not voluntarily opt out of required program activities. Valid reasons for absence – such as illness – must be discussed with the academic director or other designated staff person. Absences impact academic performance, may impact grades, and could result in dismissal from the program.

### **Late Assignments**

SIT Study Abroad programs integrate traditional classroom lectures and discussion with field-based experiences, site visits and debriefs. The curriculum is designed to build on itself and progress to the culmination (projects, ISP, case studies, etc.). It is critical that students complete assignments in a timely manner to continue to benefit from the sequences in assignments, reflections, and experiences throughout the program.

Example: Students may request a justified extension for one paper/assignment during the term. Requests must be made in writing and at least 12 hours before the required due date and time. If reason for request is accepted, an extension of up to four (4) days may be granted at that time. Any further requests for extensions will not be granted. Students who fail to submit the assignment within the extension period will receive an 'F' for the assignment.

### **Grading Scale**

94-100%	A
90-93%	A-
87-89%	B+
84-86%	B
80-83%	B-
77-79%	C+
74-76%	C
70-73%	C-
67-69%	D+
64-66%	D
below 64	F

### **Program Expectations**

- Show up prepared. Be punctual to all program activities. Be on time, have your readings completed and points in mind for discussion or clarification. Complying with these elements raises the level of class discussion for everyone.
- Ask questions in class. Engage the lecturer. These are often very busy professionals who are doing us an honor by coming to speak.
- Comply with academic integrity policies (no plagiarism or cheating, nothing unethical).
- Respect differences of opinion (classmates', lecturers, local constituents engaged with on visits). You are not expected to agree with everything you hear, but you are expected to listen across differences and consider other perspectives with respect.
- Have assignments completed on schedule and done accordingly to the specified requirements. This will help ensure that your assignments are returned in a timely manner.
- Store Your Work: Keep several copies of your work as back up and keep one copy accessible to you through an online forum, such as an attachment in your email, or cloud-based storage. This way your work will always be available to you despite

technical issues. Lost files, deleted drives, or computer crashes are not excuses for late, missing work.

- **Personal Technology Use:** Cell phones and other personal electronics can be used for taking notes and other class activities. Off-task usage is not acceptable. You may be marked as absent for habitually using them for something other than classroom activities.
- **Course Communication:** Communication will be done via the group WhatsApp page as well as orally during group encounters. Documents and assignments will be sent via emails. Although the course calendar provides a broad overview and the general sequence of work and assignments for the course, what we accomplish in class will vary, and revisions to the calendar will be communicated via the group WhatsApp page and orally before the close of sessions. You are responsible for letting AD know about any network-related problems that prevent you from accessing or submitting assignments.
- **Classroom recording policy:** To ensure the free and open discussion of ideas, students may not record classroom lectures, discussion and/or activities without the advance written permission of the instructor, and any such recording properly approved in advance can be used solely for the student's own private use.

### **SIT Policies and Resources**

Please refer to the [SIT Study Abroad Handbook](#) and the [Policies](#) section of the SIT website for all academic and student affairs policies. Students are accountable for complying with all published policies. Of particular relevance to this course are the policies regarding: academic integrity, Family Educational Rights and Privacy Act (FERPA), research and ethics in field study and internships, late assignments, academic status, academic appeals, diversity and disability, sexual harassment and misconduct, and the student code of conduct.

Please refer to the SIT Study Abroad Handbook and SIT website for information on important resources and services provided through our central administration in Vermont, such as [Library resources and research support](#), [Disability Services](#), [Counseling Services](#), [Title IX information](#), and [Equity, Diversity, and Inclusion](#) resources.