

## **Infectious Disease Prevention and Management**

**IPBH-3030 (4 credits)**

### **Comparative Public Health**

*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**

This course offers a structured comparison of infectious disease prevention and management strategies in Portugal, the Netherlands, and Greece within the broader framework of European public health and EU-level coordinations and standards. Through a combination of readings, field visits, and applied learning experiences, students will compare each country's approach to vaccination programs, outbreak control strategies, and public health emergency responses. In a highly interactive group simulation activity, students will apply what they have learned as they coordinate a response to a real-world infectious disease outbreak scenario.

#### **Learning Outcomes**

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

1. Describe the infectious disease prevention and management strategies in Europe
2. Compare the infectious disease control infrastructure of Portugal, the Netherlands, and Greece
3. Evaluate national vaccination programs in relation to European regional initiatives
4. Simulate outbreak response strategies (such as pandemics, measles resurgence, TB)

#### **Language of Instruction**

This course is taught in English.

#### **Instructional Methods**

SIT's philosophy of education is rooted in experiential learning model, which drives the design of this class. Each module allows for experience, reflection, and application. Experiences range from critical analyses of datasets to site visits and conversations with local experts. These experiences are framed by readings, multimedia texts, and class discussion. Reflection occurs throughout the learning process in various forms, such as verbal debriefs after learning on location experiences to reflexive components in papers/projects. Through reflection, students are encouraged to become aware of their process of learning, to make sense of their experiences, and connect the learning acquired on the program with previous experiences and

information. Application activities reinforce learning by practicing communication skills, experimenting with theories, and preparing to transfer learning to future contexts.

## **Required Texts**

- Articles on Course Reserve
- Outbreak Simulation Packet

## **Assignments and Evaluation**

1. **Participation & Professional Engagement (10%):** Active involvement in seminars, group discussions, and site visits.
2. **Public Health Policy Memos (3@10%, 30% total):** Acting as a Policy Advisor to the Ministry of Health, your task is to draft a Health Policy Memo recommending specific management strategies to address a pressing infectious disease threat of your choosing that is relevant to the location. Your memo must be practical, concise, and based on scientific evidence and international best practices.
3. **Outbreak Simulations (40%):** Working in groups, students will take roles (public health officials, epidemiologists, policymakers, media, etc.) during an assigned simulated outbreak. Together, they must coordinate a response: contact tracing, communication strategies, containment measures, vaccine distribution.
4. **Outbreak Reflection (20%):** Each group member will share their reflections on the simulation activity as well as the broader challenges of infectious disease management on the national and regional level.

**Note on Attendance and Participation:** Due to the nature of this experiential program, full participation in all classes and program activities is required. Students may not voluntarily opt out of required program activities. Valid reasons for absence – such as illness – must be discussed with the Program Director or other designated staff person. Absences impact academic performance, which may impact grades. Excessive, unexcused absences could result in program dismissal. Alternative work for absences will be expected.

**Note on Late Assignments:** IHP programs integrate traditional classroom lectures and discussion with field-based experiences, site visits and debriefs. 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. Extensions may be granted on a case-by-case basis with approval from the Program Director or other designated staff person. Requests must be made in writing and at least 12 hours before the posted due date and time. Students who do not submit their work within the extension period will receive a failing grade.

## **Grading Scale**

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

## Program Expectations

In order to make the most of the opportunities presented in program, communicate respectfully, prepare for student success, and demonstrate best possible engagement, SIT has the following expectations of students:

- **Content Considerations:** The texts and activities you will encounter in this course delve into sensitive topics that may be emotionally and intellectually challenging. Our classroom is a space where we can engage with challenging ideas, question assumptions, and navigate difficult topics with respect and maturity. As possible, I will flag content and activities that are especially graphic or intense, so we are prepared to address them soberly and sensitively. If you are struggling to keep up with the work or participate in the course because of the nature of the content and activities, you should speak with me and/or seek help from counseling services.
- **Learning Community:** Respect differences of opinion (classmates', lecturers, local constituents engaged with on the 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.
- **Presence.** Show up prepared. 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.
- **Engage.** Ask questions in class. Interact with the lecturer. These are often very busy professionals who are doing us an honor by coming to speak.
- **Be Honest.** Comply with academic integrity policies (no plagiarism or cheating, nothing unethical).

- **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, the course learning management system, or cloud-based storage. This way your work will always be available 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, especially during a guest lecture or presentation from a peer. You may be marked as absent for habitually using them for something other than classroom activities.
- **Course Communication:** Course documents and assignments will be posted on the learning management system, Canvas. 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 posted at the course site. You will need to check the course site regularly. You are responsible for letting me know about any network-related problems that prevent you from accessing or submitting assignments.
- **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. Documented academic accommodations may supersede this policy.

## 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.

## 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*

Note: This is a suggested sequence of modules and topics where each location explores parallel modules with a comparative focus. Local faculty should appropriately adapt how these topics are taught and select local texts, case studies, guest speakers, and site visits that are relevant to the context and course themes.

## **LOCATION #1: LISBON, PORTUGAL (weeks 1-5)**

### **Module #1: Regional and National Contexts**

Topic: European structures for infectious disease management, introduction to Portugal's health system

Readings:

- European Commission. (n.d.). Overview. European Commission. Retrieved April 28, 2025, from [https://health.ec.europa.eu/health-security-and-infectious-diseases/overview\\_en](https://health.ec.europa.eu/health-security-and-infectious-diseases/overview_en)
- European Commission, Directorate-General for Health and Food Safety. (2023, December 15). State of health preparedness report 2023 (COM(2023) 792 final). Publications Office of the European Union.  
[https://health.ec.europa.eu/publications/state-health-preparedness-report-2023\\_en](https://health.ec.europa.eu/publications/state-health-preparedness-report-2023_en)
- OECD & European Observatory on Health Systems and Policies. (2023). Portugal: Country health profile 2023. State of Health in the EU. OECD Publishing.  
<https://doi.org/10.1787/069af7b1-en>

Learning on Location: Orientation and briefing at Portuguese Public Health Institute (INSA)

### **Module# 2: Health System and Infectious Disease Control in Portugal**

Topic: Public health infrastructure for disease control, case study: COVID-19 response

Readings: Oliveira, M. D., Tavares, A. I., Vieira, A., & Pacheco, M. (2022, November). *Sustainability and resilience in the Portuguese health system: Portugal*. European Observatory on Health Systems and Policies.

[https://www3.weforum.org/docs/WEF\\_PHSSR\\_Portugal\\_2022.pdf](https://www3.weforum.org/docs/WEF_PHSSR_Portugal_2022.pdf)

Learning on Location: Visit to INSA's disease surveillance labs

### **Module #3: Vaccination Programs**

Topic: Portugal's national vaccination program, HPV vaccination success story

Readings:

- European Commission, Directorate-General for Health and Food Safety. (2022, November 21). *State of vaccine confidence in the EU* (2022). Publications Office of the European Union. [https://health.ec.europa.eu/publications/state-vaccine-confidence-eu-2022\\_en](https://health.ec.europa.eu/publications/state-vaccine-confidence-eu-2022_en)
- European Commission, Directorate-General for Health and Food Safety. (2022, November 21). *Portugal: Vaccine confidence factsheet 2022*. Publications Office of the European Union. [https://health.ec.europa.eu/publications/state-vaccine-confidence-eu-2022\\_en](https://health.ec.europa.eu/publications/state-vaccine-confidence-eu-2022_en)

Learning on Location: Public health clinic visit to observe vaccination procedures

#### **Module #4: Outbreak Management**

Topic: Preparedness plans, real outbreak scenarios (influenza)

Readings:

- Afonso, A., Gouveia, C., Januário, G., Carmo, M., Lopes, H., Bricout, H., Gomes, C., & Froes, F. (2024). Uncovering the burden of influenza in children in Portugal, 2008–2018. *BMC Infectious Diseases*, 24(1), 100. <https://doi.org/10.1186/s12879-023-08685-z>
- Pereira, E., & Rosa, C. (2019). A study of flu epidemics in Portugal. *Open Journal of Social Sciences*, 7(1), 183–193. <https://doi.org/10.4236/jss.2019.710015>

Learning on Location: guest speaker from local government's Public Health office

Assignment: Public Health Policy Memo #1 due

### **LOCATION #2: AMSTERDAM, NETHERLANDS (weeks 6-10)**

#### **Module #5: Health System and Infectious Disease Control in the Netherlands**

Topic: RIVM and Municipal Health Services (GGD), decentralized public health model

Readings:

- OECD & European Observatory on Health Systems and Policies. (2023). *Netherlands: Country health profile 2023*. OECD Publishing. <https://doi.org/10.1787/3110840c-en>
- European Observatory on Health Systems and Policies. (2024, December 6). *The Netherlands: Health system summary 2024*. World Health Organization, Regional Office for Europe. <https://eurohealthobservatory.who.int/publications/i/the-netherlands-health-system-summary-2024>
- Government of the Netherlands. (2023, March 29). *Dutch Global Health Strategy 2023–2030: Working together for health worldwide*. Ministry of Health, Welfare and Sport.

<https://www.government.nl/documents/publications/2023/03/29/dutch-global-health-strategy>

Learning on Location: Visit to GGD Amsterdam

### **Module #6: Vaccination Programs**

Topic: Childhood vaccination, measles outbreak (orthodox communities)

Readings:

- European Commission, Directorate-General for Health and Food Safety. (2022, November 21). *Netherlands: Vaccine confidence factsheet 2022*. Publications Office of the European Union. [https://health.ec.europa.eu/publications/state-vaccine-confidence-eu-2022\\_en](https://health.ec.europa.eu/publications/state-vaccine-confidence-eu-2022_en)
- Yousuf, H., van der Linden, S., van Essen, T., Gommers, D., Scherder, E., Narula, J., & Hofstra, L. (2021). Dutch perspectives toward governmental trust, vaccination, myths, and knowledge about vaccines and COVID-19. *JAMA Network Open*, 4(12), e2140529. <https://doi.org/10.1001/jamanetworkopen.2021.40529>
- Simons, R. C., Bak, M. A. R., Legemaate, J., & Ploem, C. (2023). Towards a less voluntary vaccination policy in the Netherlands? Findings from an expert interview study. *Health Policy*, 133, 104841. <https://doi.org/10.1016/j.healthpol.2023.104841>

Learning on Location: Primary care clinic visit: childhood immunization program

### **Module #7: Outbreak Management**

Topic: Urban outbreak control (STIs, airport containment, norovirus)

Readings:

- Nieuwborg, A., Melles, M., Hiemstra-van Mastrigt, S., & Santema, S. (2024). How can airports prepare for future public health disruptions? Experiences and lessons learned during the COVID-19 pandemic from a systemic perspective based on expert interviews. *Transportation Research Interdisciplinary Perspectives*, 23, 101000. <https://doi.org/10.1016/j.trip.2023.101000>
- Nikolaou, P., & Dimitriou, L. (2020). Identification of critical airports for controlling global infectious disease outbreaks: Stress-tests focusing in Europe. *Journal of Air Transport Management*, 85, 101819. <https://doi.org/10.1016/j.jairtraman.2020.101819>

Learning on Location: Schiphol Airport Infection Control Tour

Assignment: Public Health Policy memo #2 due

## LOCATION #3: ATHENS, GREECE (weeks 11-15)

### Module #8: Health System and Infectious Disease Control in Greece

Topic: Post-crisis health system reforms, EODY (National Public Health Organization)

Readings:

- OECD & European Observatory on Health Systems and Policies. (2023). *Greece: Country Health Profile 2023*. OECD Publishing. <https://doi.org/10.1787/9789264805076-en>
- *National Strategy for Quality of Care and Patient Safety 2025–2030*
- Siskou, O., Kaitelidou, D., Karanikolos, M., Sissouras, A., Liaropoulos, L., & Maresso, A. (2017). *Greece: Health system review. Health Systems in Transition*, 19(5), 1–166. <https://eurohealthobservatory.who.int/publications/i/greece-health-system-review-2017>

Learning on Location: Visit to EODY Headquarters

### Module #9: Vaccination Programs

Topic: COVID-19 vaccination challenges, public trust issues

Readings:

- European Commission, Directorate-General for Health and Food Safety. (2022, November 21). *Greece: Vaccine confidence factsheet 2022*. Publications Office of the European Union. [https://health.ec.europa.eu/document/download/839cfef8-f855-40f2-ab7c-92308ec49243\\_en?filename=2022\\_confidence\\_factsheet\\_greece\\_en.pdf](https://health.ec.europa.eu/document/download/839cfef8-f855-40f2-ab7c-92308ec49243_en?filename=2022_confidence_factsheet_greece_en.pdf)
- Tsiligianni, I., Bouloukaki, I., Papazisis, G., Paganas, A., Chatzimanolis, E., Kalatharas, M., Platakis, I., Tirodimos, I., Dardavasis, T., & Tsimtsiou, Z. (2023). Vaccination coverage and predictors of influenza, pneumococcal, herpes zoster, tetanus, measles, and hepatitis B vaccine uptake among adults in Greece. *Public Health*, 224, 195–202. <https://doi.org/10.1016/j.puhe.2023.08.014>

Learning on Location: Public hospital vaccination center tour

### Module #10: Outbreak Management

Topic: TB resurgence, post-COVID surveillance challenges

Readings:

- Solomos, Z., Botsi, C., Georgakopoulou, T., Lytras, T., Tsiodras, S., & Puchner, K. P. (2021). Active case finding of pulmonary TB in a European refugee camp: lessons

learnt from Oinofyta hosting site in Greece. *Tropical Medicine & International Health*, 26(9), 1068-1074.

- Bianchi, F. P., Fiacchini, D., Frisicale, E. M., Gili, R., Greco, S., Guicciardi, S., ... & Tafuri, S. (2024). Infectious risk profile and strategies for prevention and control of outbreaks in refugee, asylum seekers and migrant populations in EU/EEA countries: a systematic narrative review of evidences. *Annali di Igiene, Medicina Preventiva e di Comunità*, 36(5).
- Delinasios, G. J., Fragkou, P. C., Gkirmsa, A. M., Tsangaris, G., Hoffman, R. M., & Anagnostopoulos, A. K. (2021). The experience of Greece as a model to contain COVID-19 infection spread. *in vivo*, 35(2), 1285-1294.
- Spanakis, N., Kassela, K., Dovrolis, N., Bampali, M., Gatzidou, E., Kafasi, A., ... & Karakasiliotis, I. (2021). A main event and multiple introductions of SARS-CoV-2 initiated the COVID-19 epidemic in Greece. *Journal of Medical Virology*, 93(5), 2899-2907.

Learning on Location: NGO visit TB control among underserved populations

Assignment: Public Health Policy memo #3 due

### **Module #11: Outbreak Simulations**

Topic: Outbreak Simulations to synthesize learning across program locations and themes

Assignments: Simulation Reflection