COURSE OUTLINE

1 GENERAL

SCHOOL	School of Applied Biology and Biotechnology		
ACADEMIC UNIT	Department of Biotechnology		
LEVEL OF STUDIES	Postgraduate (Level 7)		
COURSE CODE	(To be assigned)	**SEMESTER**	2nd
COURSE TITLE	General Introduction of Traditional Chinese Medicine		
INDEPENDENT TEACHING ACTIVITIES *if credits are awarded for separate components of the course, e.g. lectures, laboratory exercises, etc. If the credits are awarded for the whole of the course, state the weekly teaching hours and the total credits*		**WEEKLY TEACHING HOURS**	**CREDITS**
Lectures & Guided Study (Virtual & Pre-recorded)		3	
Tutorial Content / Group Discussions		1	
TOTAL		4	6 ECTS
Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail in section (4).			
COURSE TYPE *general background, special background, specialization, general education, skills development*	Specialization / Special Background		
PREREQUISITE COURSES	Formal prerequisites are not required. Basic knowledge of ancient Chinese culture and philosophy is recommended.		
LANGUAGE OF INSTRUCTION AND OF ASSESSMENT	English		
MODE OF TEACHING *in-person (%) synchronous distance learning (%) asynchronous distance learning (%) (In the case of synchronous distance learning, the total weekly duration of teaching is recorded)*	Synchronous distance learning (75%) Asynchronous distance learning (25%)		
AVAILABILITY TO ERASMUS STUDENTS	No		
COURSE WEBSITE (URL)	https://oeclass.aua.gr/eclass/		

2 LEARNING OUTCOMES

Learning Outcomes

The course learning outcomes, specific knowledge, skills and competences of an appropriate level, which the students will acquire with the successful completion of the course are described.

Consult Appendix A

- *Description of the level of learning outcomes for each qualifications cycle, according to the Qualifications Framework of the European Higher Education Area*
- *Descriptors for Levels 6, 7 & 8 of the European Qualifications Framework for Lifelong Learning and Appendix B*
- *Brief Guide for drafting Learning Outcomes*

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

- Describe and evaluate the history, philosophy, and evolutionary development of

Traditional Chinese Medicine (TCM), while recognizing its unique strengths and advantages in healthcare.

- Explain and apply the fundamental theoretical frameworks of TCM, including Yin-Yang theory, Wu Xing (Five Elements), Zang Xiang theory, the Jing Luo (Channel) system, vital substances, and the concept of Shen (spirit).
- Analyze the pathogenesis, disease mechanisms, and prevention methods from a TCM perspective.
- Identify the historical significance and global influence of Chinese Materia Medica (CMM), including its role in disease prevention and health preservation.
- Classify various types of CMM products (natural, chemical, and biological) and determine their specific clinical applications.
- Critically analyze the properties and actions of CMM, specifically the "Four Qi" (cold, hot, warm, cool) and "Five Flavors" (pungent, sweet, sour, bitter, salty).
- Synthesize knowledge from classical TCM texts, such as *Shen Nong's Classic of the Materia Medica*, and apply it to modern clinical practices.
- Operate within a multicultural context, adapting TCM treatment principles to the seasonal and local conditions of different countries and diverse patient populations.

General Competences

Taking into consideration the general competences that the degree-holder must acquire (as these appear in the Diploma Supplement and are stated below), at which of the following does the course aim?

Search, analysis and synthesis of data and information, with the use of the necessary technology	*Project planning and management*
Adaptability to new situations	*Respect for difference and multiculturalism*
Decision-making	*Respect for the natural environment*
Working independently	*Showing social, professional and ethical responsibility and sensitivity to gender issues*
Team work	*Criticism and self-criticism*
Working in an international environment	*Production of free, creative and inductive thinking*
Working in an interdisciplinary environment	*……*
Production of new research ideas	*Other…*
	…….

- Search for, analysis and synthesis of data and information, with the use of the necessary technology (through exploring TCM information databases and scientific literature).
- Working independently (evidenced by the preparation of individual weekly assessments and reports).
- Teamwork (facilitated through the development and delivery of collaborative group presentations).
- Working in an international environment (by studying TCM's global influence and multicultural clinical applications).
- Criticism and self-criticism (developed via the critical evaluation of traditional theories versus modern clinical evidence).
- Respect for difference and multiculturalism (essential for tailoring TCM treatments across different racial and cultural contexts).
- Production of free, creative and inductive thinking (through the integration of ancient philosophical principles with modern therapeutic strategies)

3 COURSE SYLLABUS

This course is divided into two comprehensive parts that bridge ancient medical philosophy with modern herbal applications:

Part 1: Fundamental Theories of TCM

- Foundational Concepts & History: Exploration of the history, development, and unique advantages of Traditional Chinese Medicine.
- Cosmological Theories: Detailed study of Yin-Yang and Wu Xing (Five Elements) theories as applied to human health and physiological balance.
    - Physiological Systems: Understanding body structure and function through Zang-xiang theory (organs), the Jing Luo (Channel) system, and vital substances including Essence, Qi, Blood, Body Fluids, and Spirit.
- Pathology & Prevention: TCM perspectives on the causes (etiology), development (pathogenesis), and progression of diseases, alongside core principles for health preservation and disease management.
- Therapeutic Principles: Discussion of treatment methods within multicultural contexts, specifically considering seasonal, local, and individual patient needs.

Part 2: Chinese Herbal Medicine (Chinese Materia Medica - CMM)

- Origins & Classifications: The history, place of origin, and collection methods for natural, chemical, and biological CMM products.
- Properties & Processing: Scientific and traditional analysis of medicinal properties, including the Four Qi (temperature) and Five Flavors, as well as traditional processing techniques and formulation principles.
    - Clinical Applications: The therapeutic roles and application of specific medicine categories, such as exterior-releasing and heat-clearing medicines, in treating disease and promoting health.
- Classical Literature: Study of seminal texts that shaped the discipline, including *Shen Nong's Classic of the Materia Medica* and *The Grand Compendium of Materia Medica*.

4 TEACHING AND LEARNING METHODS - ASSESSMENT

MODE OF TEACHING *Face-to-face, distance learning, etc.*	Distance Learning • Synchronous distance learning (75%) : Includes live lectures and "Tutorial Content" sessions focused on group discussions regarding Chinese philosophy and medicine. • Asynchronous distance learning (25%): Involves independent study of prescribed readings and recorded foundational modules.
MODE AND FREQUENCY OF COMMUNICATION WITH THE STUDENTS	• Student Consultation Hours: Instructors are available for direct consultation or by appointment.

	• Email Communication: The preferred contact method is via email, with an estimated reply within 24 hours during the business week (Monday–Friday, 8 AM–5 PM). • Graded Feedback: Students receive formalized feedback on their progress at least twice during the term, once before the withdrawal deadline and once before final examinations. • Course Updates: All changes to the schedule or assignments are communicated promptly via the LMS.
ENSURING THE MODE OF COMMUNICATION AMONG STUDENTS *Team assignments and discussions, collaborative learning platforms with the use of AI, video conference, QA sessions, κ.α.*	The course utilizes several strategies to promote interactive learning and peer-to-peer engagement in a virtual environment: • Collaborative Group Presentations: Students work in teams to critically evaluate primary research, requiring frequent peer interaction and coordination. • Peer Communication: Students are expected to communicate effectively in English with their teammates and peers throughout the course. • Group Discussion Tutorials: Weekly synchronous sessions include dedicated time for group discussions where students debate the application of TCM theories (e.g., the interaction of Zang-fu organs) to modern health scenarios.
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY *Use of ICT in teaching, in laboratory training, in the communication with students*	The course utilizes advanced digital health and academic platforms to bridge ancient medical theory with modern research: • Learning Management System (LMS): Access to AUA e-class for all course materials, assignments, and schedule updates. • Virtual Collaboration: High-definition video conferencing for synchronous sessions. • Scientific Communication: Use of Microsoft Word for drafting scientific manuscripts and Microsoft PowerPoint for delivering oral group presentations. • TCM Databases: Students are trained to use the Traditional Chinese Medicine

	Information Database (TCMID) and PubMed for pharmacological and ethnopharmacological research. • Virtual Collaboration: High-definition video conferencing for synchronous sessions.
TECHNOLOGICAL EQUIPMENT REQUIREMENTS	To successfully participate in this hybrid distance-learning course, students must have access to: • Personal Computer / Laptop: A modern system capable of running standard academic software and high-definition video conferencing. • High-Speed Internet Connection: Reliable broadband access to support synchronous video conferencing and the streaming of asynchronous instructional content. • Communication: Installation of Zoom or other approved video conferencing platform for synchronous sessions. • Peripherals: A functional webcam and microphone for breakout sessions and oral presentations. • Operating Systems: Proficiency in and access to Microsoft Windows or macOS. • Internet Connectivity: A stable internet connection is required for accessing the LMS and participating in synchronous sessions. • Institutional Infrastructure: Students are provided with institutional access to digital library resources and scientific databases (TCMID, PubMed).
PLAGIARISM POLICY/ PLAGIARISM DETECTION TOOLS	The program maintains a zero-tolerance policy towards academic dishonesty and plagiarism, ensuring that all submitted work reflects the student's original research and critical thinking. • Plagiarism Policy: Plagiarism is defined as using the words, ideas, results, or images of others without proper attribution, as well as self-plagiarism (resubmitting prior work). • In alignment with the Agricultural University of Athens (AUA) regulations, all postgraduate assignments and the final thesis must comply with the institutional standards for originality. Plagiarism Detection Tools:

	• Turnitin: All written assignments (Manuscript Reports, Discussion Board posts, and the final Thesis) are systematically screened through the Turnitin plagiarism detection software. • Originality Reports: Instructors review detailed similarity reports generated by Turnitin to identify improperly cited content or excessive overlap with existing literature. • AI Writing Detection: The program utilizes Turnitin's AI writing detection feature to identify instances where generative AI tools may have been used outside the permitted guidelines. • Consequences: Instances of academic dishonesty are handled according to the procedures of the Office of Student Rights and Responsibilities (OSRR) at Purdue and the Assembly of the Department of Biotechnology at AUA. Sanctions may range from failure of the assignment to dismissal from the dual-degree program.
ARTIFICIAL INTELLIGENCE POLICY *(1) The use of Artificial Intelligence is prohibited in all circumstances* *(2) The use of Artificial Intelligence is allowed only with the permission of the instructor* *(3) The use of Artificial Intelligence is allowed only with an explicit reference to the literature* *(4) Students are free to use Artificial Intelligence*	(2) The use of Artificial Intelligence is allowed only with the permission of the instructor (3) The use of Artificial Intelligence is allowed only with an explicit reference to the literature Description & Implementation: In this course, a constructive but regulated approach to Generative AI (e.g., ChatGPT, Gemini) is adopted: • Permitted Use: Students are allowed to use AI tools primarily as "collaborative partners" for brainstorming, structuring outlines, or refining the linguistic clarity of their written reports (e.g., the final manuscript report). • Instructor Approval: Use of AI for specific assignments must be discussed with and approved by the instructor during the initial stages of the project. • Mandatory Disclosure: If AI tools are used, students must include a dedicated "AI Disclosure Statement" in their work, explicitly describing which tool was used and for which part of the assignment. • Academic Integrity: Students remain 100% responsible for the accuracy and scientific validity of the final output. AI-generated text

must be critically verified against primary peer-reviewed literature.

- Prohibited Use: Using AI to generate entire assignments, perform primary data analysis without disclosure, or bypass critical thinking components of the course is strictly prohibited and constitutes academic dishonesty.

ORGANISATION OF TEACHING

The mode and methods of teaching are described in detail.
Lectures, seminars, laboratory practice, fieldwork, study and analysis of bibliography, tutorials, work placements, clinical practice, art workshop, interactive teaching, educational visits, project, essay writing, artworks, etc.

The student's study hours for each learning activity are stated, as well as the hours of independent study, according to the principles of the ECTS.

Activity	***Semester workload***
Lectures (Synchronous distance learning - 3h/week)	39
Tutorials & Group Discussions (Synchronous - 1h/week)	13
Independent study of asynchronous modules & digital resources	26
Study and analysis of bibliography	32
Preparation for Quizzes (18 quizzes)	18
Preparation of Group Presentation	10
Preparation of Final Manuscript Report	12
Course total	**150**

STUDENT ASSESSMENT

Description of the assessment method

Language of assessment, methods of assessment, formative or summative assessment, multiple choice questions test, short answer questions, essay questions, problem solving, written work, essay/report, oral examination, public presentation, laboratory assignment, clinical examination of patient, art interpretation, other

Specifically-defined evaluation criteria are given, and if and where they are accessible to students.

Language of assessment: English

Methods of assessment:

The assessment is summative and reflects the sum of student achievement of learning outcomes throughout the semester. It consists of the following components:

- Weekly Quizzes (30%): These assessments evaluate the comprehension of the specific theoretical content covered in the weekly instructional modules.
- Group Presentation (30%): A collaborative project where students research and present on a specific aspect of TCM theory or Chinese Materia Medica.

	• Final Report Manuscript (30%): A comprehensive written report formatted as a scientific manuscript, requiring the synthesis of course concepts. • Class Participation & Discussion (10%): Ongoing evaluation of student engagement during synchronous tutorials and digital forum activities. Evaluation Criteria: • Specifically defined criteria: Each assignment is graded according to a specific rubric provided to the students. • Late Policy: Late work is penalized at a rate of 10% per day unless prior arrangements are made. • Grading Scale: The final grade is calculated out of 100% using a standard scale: A (≥92%), B (82-87%), C (72-77%), D (60-70%), and F (<60%) . • Feedback: Students receive graded feedback at least twice during the term (once before the withdrawal deadline and once before finals). • Accessibility: All evaluation methods, exam schedules, and grading rubrics are explicitly detailed in the syllabus and accessible to students via the AUA e-class LMS from the start of the course.

5 RECOMMENDED BIBLIOGRAPHY

Prescribed Textbooks:

- Zhang Bo-li. *Fundamental Theory of TCM*. World Textbook Series for Chinese Medicine Core Curriculum.
- Hu, D. (Ed.). (2015). *Traditional Chinese medicine: Theory and principles* (Digital ed.). De Gruyter.
- Dan Bensky. *Chinese Herbal Medicine: Materia Medica*.
- Shengyan Xi. *Essentials of Chinese Materia Medica and Medical Formulas*.

References & Resources:

- Maciocia, G. (2015). *The Foundations of Chinese Medicine* (3rd ed.). Elsevier.
- World Health Organization. (2022). *WHO international standard terminologies on traditional Chinese medicine*.
- Journals: *Journal of Ethnopharmacology*, *Chinese Medicine Journal*.
- Databases: Traditional Chinese Medicine Information Database (TCMID), PubMed for pharmacological studies.