**Μodules οffered in English**

The Department of Archival, Library & Information Studies (ALIS) offers the following modules (courses) relevant to Information Science for the Erasmus incoming students:

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| --- | --- | --- | --- | --- |
|  | Course Code | Course Title | ECTS | Semester |
| Winter | Spring |
| 1 | ALIS-ER-O1 | Introfuction to Archival, Library & Information Studies | 6 |  | X |
| 2 | ALIS-ER-02 | Metadata | 6 | X |  |
| 3 | ALIS-ER-03 | Archives Management | 6 |  | X |
| 4 | ALIS-ER-04 | History of Books and Libraries | 6 | X |  |
| 5 | ALIS-ER-05 | History and Philosophy of Science | 6 |  | X |
| 6 | ALIS-ER-08 | Scholarly Communication  | 6 | X |  |
| 7 | ALIS-ER-10 | Digital Museums | 6 | X |  |
| 8 | ALIS-ER-11 | Health Information and Libraries | 6 | X |  |

All are offered on demand, in English and at the BA Level, and have 6 ECTSs each.

Incoming students may also choose 1 or 2 courses offered by other Departments, after consultation with the Erasmus office of UNIWA (erasmus2@uniwa.gr).

**Erasmus ALIS Course Descriptions – Learning Outcomes**

# Introduction to Archival, Library & Information Studies (code ALIS-ER-01)

Assistant Professor Angeliki Antoniou angelant@uniwa.gr

The course provides an instruction to the disciplines of Archival Library and Information Studies, allowing students to understand the different fields involved in the organization and management of cultural institutions, the management of knowledge and the role of cultural organizations and information systems in societies. In addition, the course aims at increasing students 21st century skills and provide the opportunities to work with presentation, collaboration and creativity skills. The course is a way to get acquainted with cutting edge research in the field and gives the opportunity for horizontal exploration of the fields involved. Students will work on a course project that will allow them to apply knowledge and creativity.

# Metadata (code: ALIS-ER-02)

Associate Prof. Alexandros Koulouris akoul@uniwa.gr

Prof. Daphne Kyriaki-Manessi dkmanessi@uniwa.gr

The course focuses on providing metadata concepts, principles and applications in different domains. It offers the conceptual and practical knowledge needed for understanding the anatomy of metadata, their structure and their building blocks along with their use and wide application in digital libraries.

Existing metadata standards (such as DC, CIDOC CRM, MODS, EAD, etc) are used as examples and students are required to practice. The development of application profiles based on metadata schemas for specific information needs is also an integral part of the course.

Furthermore Metadata services are also viewed within the framework of digital libraries.

At the end of the course students will be able to:

* Select the most suitable metadata schema and use it for the description of any digital resource in a digital library environment.
* Develop an application profile
* Understand the notions of interoperability and open dat

**Archives Management (code: ALIS-ER-03)**

Ass. Prof. Yannis Stoyannidis ystoyannidis@uniwa.gr

This is mainly an introductory course to the world of archives. Students are introduced to the nature and functions of archives as physical units, as institutions and as endangered heritage. The fundamentals of the organization and management of records and archives are discussed.

Key concepts introduced include:

* National Archives and historiography (19th-20th c.).
* Archival science and archivists (education, journals, scientific trends)
* The conceptual and physical unity of archives
* Ages of archival material. Records and Archives. Methods of managing
* The physical and conceptual processing of archives (Acquisition, Clearing, Classification)
* Archival description and the relevant international standards (ISAD(G), ISDF, ISDIAH, ISAAR, EAD)
* Archival Institutions around the world: State Archives, Bank Archives, Business Archives, Museum Archives, University Archives
* Archives as an endangered heritage. Historical culture, memory and documents

Students will be able to understand the various archival standards and discuss the management of records and archives.

In the end of the course, every student is expected to produce an essay discussing issues developed in journal articles. In some cases students might be asked to participate in oral or written exams.

**History of Books and Libraries (code: ALIS-ΕR-04)**

Ass. Prof. Yannis Stoyannidis ystoyannidis@uniwa.gr

This is mainly a course about the history of books and libraries. Students are introduced to the making of documents and books, the building and operation of libraries. Along with these two main concepts students will have the opportunity to hear how the history of reading and readership changed over centuries.

Key concepts introduced include:

* Making material for scripts. From the Ancient to the Medieval world
* Codex becomes a popular medium
* The book as art
* Libraries and architecture (classical times, medieval world, national libraries)
* The readership along centuries. A social history
* The revolution of Printing and the profession of printer
* Popular and forbidden books

Students will be able to understand and discuss the main ideas concerning the history of books and libraries. This course includes perspectives ranging from social history to material history.

In the end of the course students will be asked to participate in oral or written exams.

# History and Philosophy of Science (code: ALIS-ER-05)

Prof. Markos Dendrinos mdendr@uniwa.gr

During this course, the following subject areas are presented and discussed:

* History of science: The emergence of science in the form of philosophical assertions (Presocratic philosophers, Pythagorean mathematics and physics of harmonics, Timaeus of Plato). The emergence of mathematics in Mesopotamia, Egypt and Greece. Ancient astronomy. Finding the date of Latin and Orthodox Easter. Logical deduction and syllogisms in Aristotle. Scientific revolution (Copernicus, Kepler, Galileo, Newton). From Alchemy to Chemistry (Paracelsus, Van Helmont, Boyle, Newton, Priestley, Lavoisier). The new concept of space- time in the theory of Relativity of Einstein.
* Philosophy of science: Definition of Knowledge in Platonic Theaetetus. Rationalism vs Empiricism. The paradigm of Euclidean Geometry. Scientific methodology (Observation and experiments - Induction vs Deduction). The establishment of scientific methodology in Aristotle and late medieval scholastics (Grosseteste, Francis Bacon, Duns Scotus, William of Ockham). The importance of falsefiability (Carl Popper). Standard science, scientific revolutions, scientific paradigms according to Kuhn. The new role of the observer in quantum mechanics. Philosophy of Information.
* History of ideas: The Socratic theory of ideas in Plato. Rationalists (Parmenides, Plato, Descartes, Spinoza, Leibnitz). Empiricists (Locke, Berkely, Hume, Francis Bacon). The reappearance of the ancient ideas in Renaissance.

# Web 2.0 Applications (code: ALIS-ER-07)

Associate Prof. Ioannis Triantafyllou triantafi@uniwa.gr

The theoretical part of the course focuses mainly on the basic concepts related to the design and implementation of services / applications on the Internet.

* Understanding: The main goal is to understand basic concepts related to analysis, synthesis and design of dynamic websites / services / applications using both basic and modern technologies, in collaboration with web-servers and database- servers, in Web 2.0.
* Analysis: Students will be able to identify, study and analyze the needs of a new service / application and to identify and define its requirements correctly, while setting the basic implementation conditions.
* Composition: Students will be able to synthesize-design new web services / applications / sites and implement a new Web 2.0 site / service. This will be achieved through a project by using one of the most common design / implementation technologies / platforms, e.g. Joomla!.
* Evaluation: The objectives are to provide students with the ability to choose the right criteria for evaluating websites and their technologies. The course also addresses Web search techniques (lexical and semantic approach), aiming at the development of search / meta-search engines and e-commerce criteria.

The course is divided into the following sections:

* Section 1. Basic Web Concepts 1.0. The static web construction technologies are briefly presented. More specifically, reference is made to HTML and CSS. Basic knowledge of both is a necessary tool for understanding the concepts and management tools in the next sections.
* Section 2. Basic Concepts in Web 2.0. The concept of a dynamic site through which customers of the client computers interact with the services of the server computers. Basic programming languages used on servers and clients. More specifically, reference is made to Javascript, PHP and JSP. At the same time, the basic DB management tools (MySQL - phpMyAdmin) that are at the heart of Web

2.0 services are also presented. Presentation of a complete dynamic website

management structure: a web-server (e.g. Apache) that works with a database- server (e.g. MySQL) and a dynamic content manager (e.g. PHP).

* Section 3. Platforms for Website Development and Services on the World Wide Web. Basic concepts of the three most important CMS platforms currently used in WordPress, Joomla!, Drupal. Common points, variations, and platform selection criteria that best suit each case of deploying a particular Web 2.0 service. Development of a website using one of the above-mentioned platforms,

e.g. Joomla!.

# Scholarly Communication (code: ALIS-ER-08)

Assistant Prof. Dimitrios Kouis dkouis@uniwa.gr

Scholarly Communication is defined as the system through which the creation, evaluation, dissemination and preservation of the research community outputs and accomplishments of any form (e.g. journal articles, monographs, web material, deliverables, patents etc.) are realized. The Scholarly Communication course has the following objectives:

* Understanding: The complete scientific publication cycle including the scientific method, the evaluation of the research outcomes and their publication through the formal channels such as scientific journals, the level of impact, the means for dissemination, the intellectual property rights, as well as the tools for long-term preservation and reuse.
* Analysis: Students will be able to identify, study and analyze the Scholarly Communication major challenges such as research method and output types, scientific publication procedures, peer-review models, traditional and alternative impact indicators, ethics rules and bias cases, the intellectual property rights, new dissemination methods, the application of FAIR principles in research data (Findability, Accessibility, Interoperability and Reusability), the Open Science movement concepts and the data preservation problems.
* Composition: By attending the Scholarly Communication course, students will be able to council researchers on how to be more productive during publishing their research results per scientific discipline. Also, they will be in a position to participate effectively as professionals with any role in the scientific publication cycle.
* Evaluation: Students will be provided with the ability to evaluate different publication channels and formats, peer-review models, bibliometric indicators and alternative metrics for impact measurement, licensing models, dissemination tools etc. Also, they will have the chance to develop critical thinking skills to specific challenges that Scholarly Communication faces today, such as Open Access, Open Data and Open Science movements, the Business of Scholarship Paywall, the Science with and for society concept etc.

The course is divided into the following sections:

* Section 1. Understanding the research cycle (scientific method, scientific proposal structure, basic – applied – evaluative research, multidisciplinary- interdisciplinary research etc.)
* Section 2. Understand the Publication cycle (publications categories and formats, scientific publication landscape, peer-review cycle and models, publication bias, serial crisis, the Open Journal System, etc.)
* Section 3. Traditional and modern metrics for research output impact assessment (citation databases, h-index, m-index, impact factor, altmetrics etc.)
* Section 4. Scholarly Communication special topics (Intellectual Property Rights – IPRs, Publication agreements, Open Access - Open Data - Open Science, the FAIR principles, modern dissemination channels, Research Data Management Plan, ethics in Research, the Business of Scholarship Paywall, the Science with and for society concept, European Open Science Cloud etc.).

# Digital Museums (code: ALIS-ER-10)

Ass. Prof. Angeliki Antoniou, angelant@uniwa.gr

The course introduces digital museums analyzing multiple perspectives. It provides a string theoretical background to the field and progresses with a set of practical exercises that allow the student to experiment with different design issues.

In particular, the course builds around three main domains, the personal domain of the visitor, the physical domain of the museum space and the socio-cultural domain. After building the necessary theoretical background, we focus on technologies that allow cultural communication, personalization of information, social interaction between visitors, and adaptation to the requirements of the physical space. The course also presents cutting edge technologies for cultural heritage and assists the students in understanding basic design principles of such applications from addressing both content and technology issues.

Some of the topics covered are:

* Cultural communication (websites, social media)
* Sustainability
* Digital learning in cultural heritage
* Personal characteristics of visitors/users
* Cutting edge technologies (Internet of Things, holograms, Robots, 3D printing, Augmented Reality, Virtual Reality, etc
* Evaluation of cultural technologies
* Museum guides and narration apps
* Collaborative interfaces
* Games and experience gamification
* Hybrid spaces
* Social function of museums
* Interface design
* Creation of digital content

# Health Information and Libraries (code: ALIS-ER- 11)

# Ass. Prof. Artemis Chaleplioglou, artemischal@uniwa.gr

This course is a comprehensive introduction to health information management for librarians and information scientists. The nature, confidentiality, organization, circulation, and reuse of this collection of data, which varied from clinical medical records to scientific papers and textbooks, will be explored, presented, and discussed in the context of computer tools and services. The role of librarians and information scientists, their responsibilities and functions in delivering this information to the specialists, medical and biosciences professionals and researchers, as well to non-specialists, patients, families and the general public will be assessed. The learning objectives of the Health Information and Libraries course are:

* The importance of Health Information for the promotion of health, community resilience in food, biosafety, longevity, and quality of life.
* The different types of clinical and biomedical information.
* Data protection regulations, anonymization, and bioethical considerations of stored health data in biomedical research and metadata reuse.
* The needs of library users-driven organization and development of medical, academic, or public libraries’ health information collections.
* The importance of health information delivery to the specialists in medical diagnostic decision making and continuing biomedical research.
* The methodological information science business approaches medical and bioscience data digital knowledge management.
* Semantic web technologies and biomedical linked data.
* The authoritative international sources of health information on the web.
* Searching techniques, medical and bioscience bibliography retrieve, statistical analysis, and representation.
* Medical Subject Headings and controlled vocabularies.
* Bibliometrics analysis.
* Evidence-Based Medicine.
* Personalized/Precision Medicine.
* Assisting policy makers in decision making for health.
* Patients, families, educational programs, and the general public health promotion.

In the end of this course, it is anticipated for the students to be able to manage health information, to deliver health bibliographies, and to provide guidance for specialists and naïve users for health information resources. Optional, students could write a short essay on a health information topic of their interest.