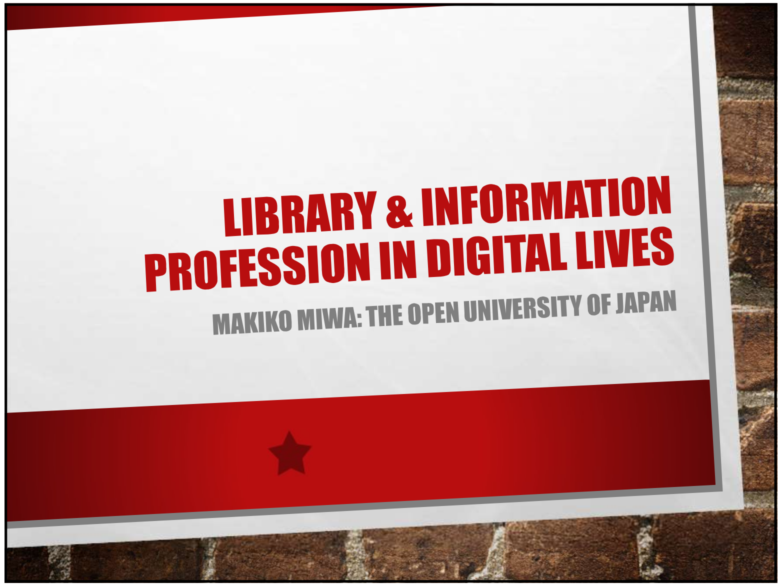
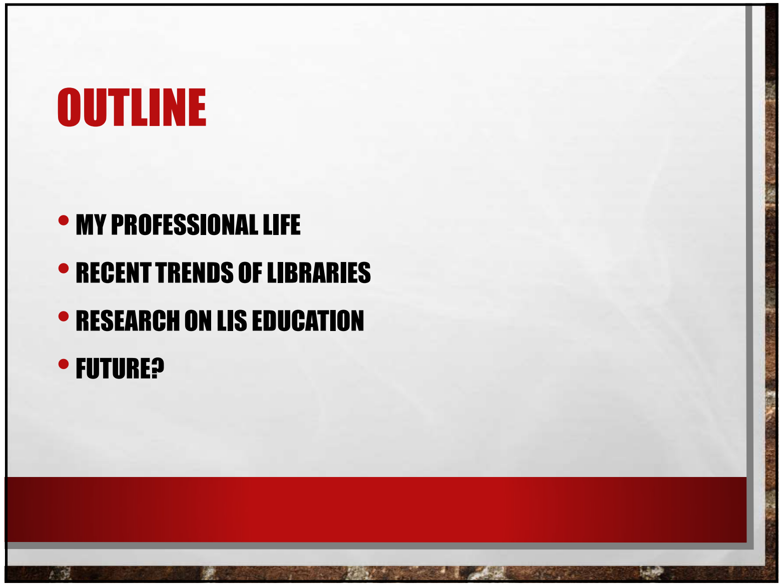


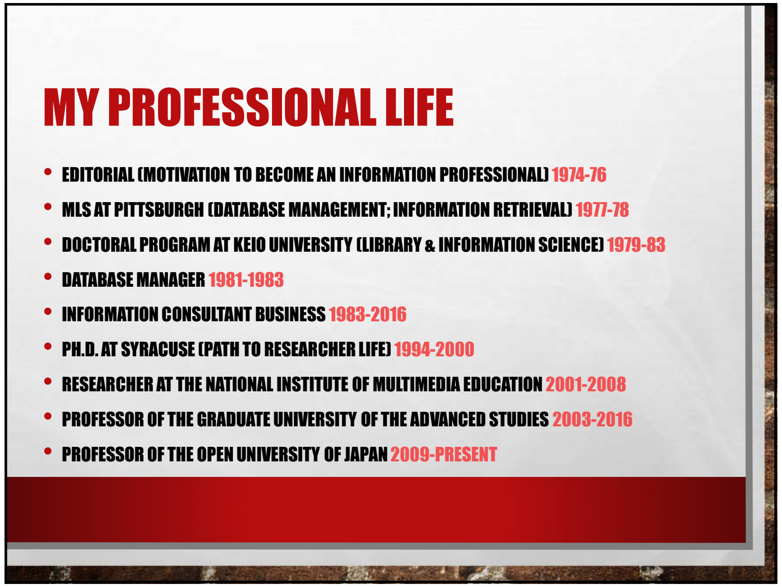
LIBRARY & INFORMATION PROFESSION IN DIGITAL LIVES

MAKIKO MIWA: THE OPEN UNIVERSITY OF JAPAN



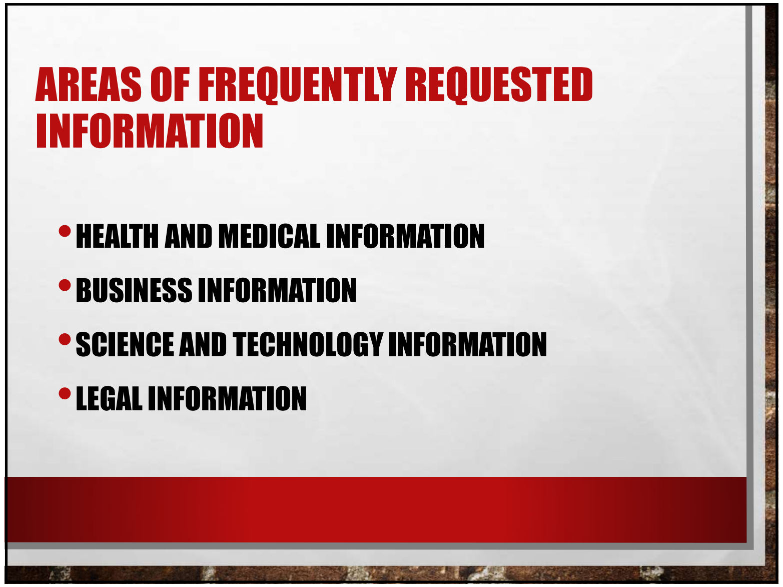
OUTLINE

- MY PROFESSIONAL LIFE
- RECENT TRENDS OF LIBRARIES
- RESEARCH ON LIS EDUCATION
- FUTURE?



MY PROFESSIONAL LIFE

- EDITORIAL (MOTIVATION TO BECOME AN INFORMATION PROFESSIONAL) 1974-76
- MLS AT PITTSBURGH (DATABASE MANAGEMENT; INFORMATION RETRIEVAL) 1977-78
- DOCTORAL PROGRAM AT KEIO UNIVERSITY (LIBRARY & INFORMATION SCIENCE) 1979-83
- DATABASE MANAGER 1981-1983
- INFORMATION CONSULTANT BUSINESS 1983-2016
- PH.D. AT SYRACUSE (PATH TO RESEARCHER LIFE) 1994-2000
- RESEARCHER AT THE NATIONAL INSTITUTE OF MULTIMEDIA EDUCATION 2001-2008
- PROFESSOR OF THE GRADUATE UNIVERSITY OF THE ADVANCED STUDIES 2003-2016
- PROFESSOR OF THE OPEN UNIVERSITY OF JAPAN 2009-PRESENT



AREAS OF FREQUENTLY REQUESTED INFORMATION

- HEALTH AND MEDICAL INFORMATION
- BUSINESS INFORMATION
- SCIENCE AND TECHNOLOGY INFORMATION
- LEGAL INFORMATION

	History of ICT in Libraries	My Experience
1950s	Cranfield Project	Birth
1960s	Bibliographic Databases (CA; MEDLERS)	High School
1970s	MARC; Online Bibliographic/Fulltext Databases (DIALOG; ORBIT; LexisNexis)	Undergrad; Time Life; MLS (Pittsberg); Database Manager (Tsukuba U)
1980s	OCLC; Computer-Readable Catalogues; OPAC (OCLC); Multimedia Databases	Keio Doctoral Student Information Broker
1990s	Commercial Internet Service; Web Services	Ph.D. (Syracuse).; AskERIC; Information Seeking Behaviour
2000s	Digital Libraries; Virtual refarence; RDF; Federated Search; e-Books; Dublin Core; FRBR; Institutional Repository; Online Bookstore (AMAZON); e-Learning	Mult-imediia Database Management (National Institute of Multimedia Education)
2010s	RDA; Open URL (Link Resolver); LOD; Google Books; MOOCs; Big Data; Altmetrics	Digital Literacy Education; Data Science Curriculum Development (The Open University of Japan)
2020s	???	Happy Retirement

RECENT TRENDS OF LIBRARIES

RECENT TRENDS OF ACADEMIC LIBRARIES

LEARNING AND RESEARCH SUPPORT

- LEARNING COMMONS
- ONLINE DATABASE
- ONLINE REFERENCE
- INSTITUTIONAL REPOSITORY
- RESEARCH DATA MANAGEMENT
- INSTITUTIONAL RESEARCH ADMINISTRATION
- DIGITAL ARCHIVES
- LEARNING ANALYTICS

RECENT TRENDS OF PUBLIC LIBRARIES

PROBLEM-SOLVING CONSULTANT

- SUPPORT LIFE-LONG LEARNING OF THE COMMUNITY
- COMPREHENSIVE REFERENCE SERVICE FOR CLIENTS' PROBLEM-SOLVING
  - HEALTH & MEDICAL INFORMATION FOR PATIENTS AND FAMILY
  - BUSINESS INFORMATION FOR LOCAL BUSINESS AND ENTREPRENEURS
  - LEGAL INFORMATION FOR LOCAL CLIENTS
  - SCIENCE & TECHNOLOGY INFORMATION FOR LIFE-LONG LEARNING
- INFORMATION LITERACY TRAINING
  - DIGITAL LITERACY TRAINING FOR DIGITAL DIVIDE
  - INFORMATION-SEEKING TRAINING FOR LOCAL CLIENTS

RECENT RENDS OF T SCHOOL LIBRARIES
SUPPORT SELF-REGULATED LEARNING

- INFORMATION LITERACY EDUCATION
- ENHANCE STUDENTS' READING SKILL
- OFFER SPACE AND TOOLS FOR INQUIRY-BASED LEARNING
- OFFER SPACE FOR ALIENATED STUDENTS
- SUPPORT TACHING

RECENT TRENDS OF SPECIAL LIBRARIES
KNOWLEDGE MANAGEMENT HUB

- RECORD KEEPING
- BUSINESS INTELLIGENCE
- MANAGE AND ANALYSE INTERNAL DATA
- HANDLE AND CURATE BIG DATA
- HADOOP AND BIG DATA ANALYTICS FOR MARKETING
- ARCHIVES

RESEARCH ON LIS EDUCATION

RESEARCH ON LIS EDUCATION

- KALIPER: NORTH AMERICA (1998-2000)
- EUROPEAN CURRICULUM (2002-2004)
- LIPER: JAPAN (2003-2006)
- GLOBALIS: GLOBAL (2010-2014)
- TRENDS OF MLS PROGRAMS [2016]

KALIPER: NORTH AMERICA (1999-2000)

ASSESS THE NATURE AND EXTENT OF CURRICULAR CHANGE BY SCHOOL SURVEYS, CASE STUDIES OF 27 SCHOOLS, AN ANALYSIS OF CURRICULA AND FACULTY OPINIONS, AN ANALYSIS OF LIS JOB ANNOUNCEMENT, AND AN ANALYSIS OF FACULTY SPECIALIZATIONS

- LIS CURRICULA ARE ADDRESSING BROAD-BASED INFORMATION ENVIRONMENTS AND INFORMATION PROBLEMS.
- A DISTINCT CORE HAS TAKEN SHAPE THAT IS PREDOMINANTLY USER CENTRED.
- OFFERING INSTITUTIONS IN DIFFERENT FORMATS TO PROVIDE STUDENTS WITH MORE FLEXIBILITY.
- EXPANDING CURRICULA BY OFFERING RELATED DEGREES AT THE UNDERGRADUATE, MASTERA7S AND DOCTORAL LEVELS.
- IDENTIFIED FUTURE POSSIBILITIES
    - DEMANDS OF STUDENTS, EMPLOYERS, GRADUATES, AND PROFESSIONAL ASSOCIATIONS FOR GRADUATE COMPETENCIES.
    - GROWTH AND EXPENSE OF SUPPORTING EMERGING TECHNOLOGY.
    - AVAILABILITY AND PRESENCE OF FACULTY WITH NEW SUBJECT EXPERTISE.
    - COMPETITION FROM OTHER LIS PROGRAMS.
    - AVAILABILITY OF FINANCIAL SUPPORT FOR INNOVATION.

Pettigrew, K. E., & Durrance, J. C. (2001). KALIPER: Introduction and overview of results. Journal of education for library and information science, 170-180.

KALIPER: NORTH AMERICA (1999-2000)

KALIPER (THE KELLOGG ALISE INFORMATION PROFESSIONS AND EDUCATION RENEWAL) PROJECT (1998-2000) EXTENSIVELY EXAMINED LIS CURRICULUM IN NORTH AMERICA AND IDENTIFIED FIVE TRENDS.

- DEVELOPMENT OF BROADER FRAMEWORKS FOR EXAMINING INFORMATION PROBLEMS,
- INCREASED INTERDISCIPLINARITY,
- STRONGER INFORMATION TECHNOLOGY INFRASTRUCTURE,
- MORE EFFECTIVE USE OF TECHNOLOGY TO SUPPORT CURRICULAR INNOVATIONS,
- MORE EFFECTIVE DELIVERY OF DISTANCE LEARNING, GREATER FLEXIBILITY IN PROGRAM DELIVERY, AND
- THE EMERGENCE OF MORE USER-CENTERED CURRICULUM.

Pettigrew, K. E., & Durrance, J. C. (2001). KALIPER: Introduction and overview of results. Journal of education for library and information science, 170-180.

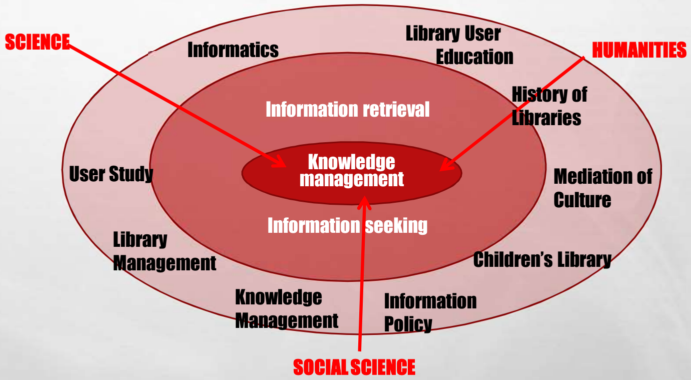
EUROPEAN CURRICULUM (2002-2004)

EUROPEAN CURRICULUM REFLECTIONS ON LIBRARY AND INFORMATION SCIENCE EDUCATION FOR LIS SCHOOL EVOLUTION => RESEARCH ORIENTED UNIVERSITIES,

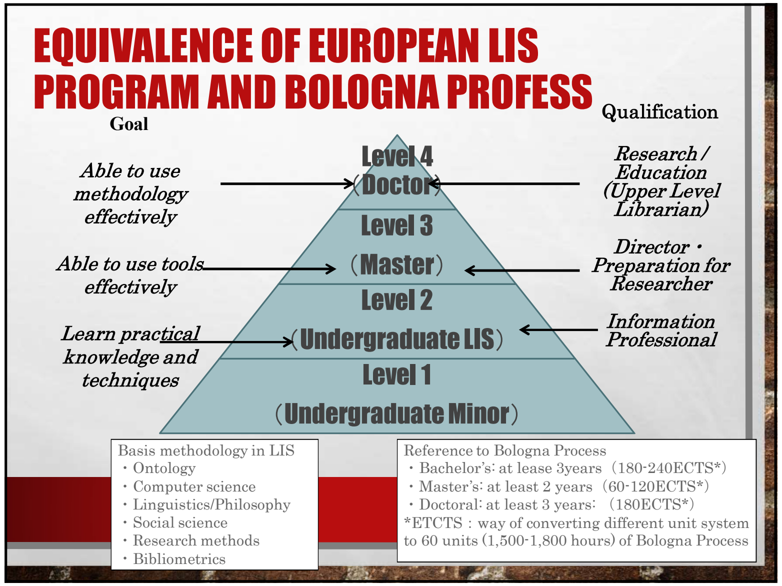
- THREE UNIQUE CORE AREAS OF LIS:
    - KNOWLEDGE ORGANIZATION
    - INFORMATION USE BEHAVIOUR
    - INFORMATION RETRIEVAL
- SPIRAL MODEL OF CURRICULUM DEVELOPMENT (NORTH AMERICA MODEL)
- SPECIFIC PROFESSIONAL SKILLS => THEORETICAL KNOWLEDGE APPLICABLE TO PRACTICES

Lorring, L., & Kajberg, L. (2005). European curriculum reflections on library and information science education. Royal School of Library and Information Science.

EUROPEAN CURRICULUM (2002-2004)



Lorring, L., & Kajberg, L. (2005). European curriculum reflections on library and information science education. Royal School of Library and Information Science.



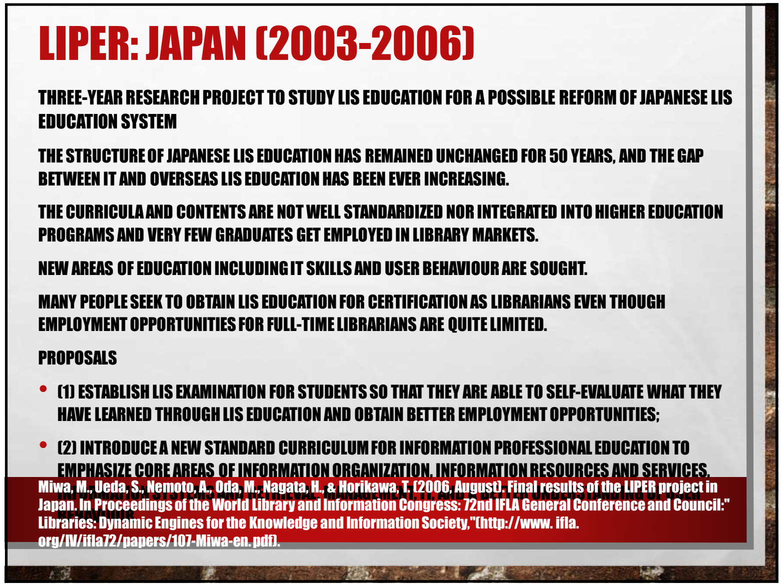
EQUIVALENCE OF EUROPEAN LIS PROGRAM AND BOLOGNA PROFESS

Goal
Qualification
Level 4
(Doctor)
Level 3
（Master）
Level 2
（Undergraduate LIS）
Level 1
（Undergraduate Minor）
Able to use methodology effectively
Able to use tools effectively
Learn practical knowledge and techniques
Research / Education (Upper Level Librarian)
Director・Preparation for Researcher
Information Professional

Basis methodology in LIS
- Ontology
- Computer science
- Linguistics/Philosophy
- Social science
- Research methods
- Bibliometrics

Reference to Bologna Process
- Bachelor's: at lease 3years（180-240ECTS*)
- Master's: at least 2 years（60-120ECTS*)
- Doctoral: at least 3 years:（180ECTS*)

*ETCTS：way of converting different unit system to 60 units (1,500-1,800 hours) of Bologna Process



LIPER: JAPAN (2003-2006)

THREE-YEAR RESEARCH PROJECT TO STUDY LIS EDUCATION FOR A POSSIBLE REFORM OF JAPANESE LIS EDUCATION SYSTEM

THE STRUCTURE OF JAPANESE LIS EDUCATION HAS REMAINED UNCHANGED FOR 50 YEARS, AND THE GAP BETWEEN IT AND OVERSEAS LIS EDUCATION HAS BEEN EVER INCREASING.

THE CURRICULA AND CONTENTS ARE NOT WELL STANDARDIZED NOR INTEGRATED INTO HIGHER EDUCATION PROGRAMS AND VERY FEW GRADUATES GET EMPLOYED IN LIBRARY MARKETS.

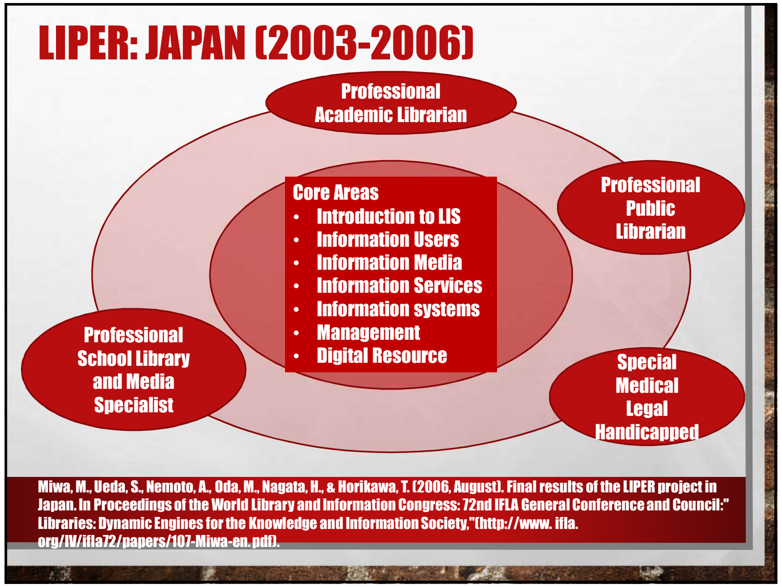
NEW AREAS OF EDUCATION INCLUDING IT SKILLS AND USER BEHAVIOUR ARE SOUGHT.

MANY PEOPLE SEEK TO OBTAIN LIS EDUCATION FOR CERTIFICATION AS LIBRARIANS EVEN THOUGH EMPLOYMENT OPPORTUNITIES FOR FULL-TIME LIBRARIANS ARE QUITE LIMITED.

PROPOSALS

- (1) ESTABLISH LIS EXAMINATION FOR STUDENTS SO THAT THEY ARE ABLE TO SELF-EVALUATE WHAT THEY HAVE LEARNED THROUGH LIS EDUCATION AND OBTAIN BETTER EMPLOYMENT OPPORTUNITIES;
- (2) INTRODUCE A NEW STANDARD CURRICULUM FOR INFORMATION PROFESSIONAL EDUCATION TO EMPHASIZE CORE AREAS OF INFORMATION ORGANIZATION, INFORMATION RESOURCES AND SERVICES, INFORMATION SYSTEMS AND RETRIEVAL, MANAGEMENT, IT, AND A BETTER UNDERSTANDING OF USER BEHAVIOUR

Miwa, M., Ueda, S., Nemoto, A., Oda, M., Nagata, H., & Horikawa, T. (2006, August). Final results of the LIPER project in Japan. In Proceedings of the World Library and Information Congress: 72nd IFLA General Conference and Council:" Libraries: Dynamic Engines for the Knowledge and Information Society,"(http://www. ifla. org/IV/ifla72/papers/107-Miwa-en. pdf).

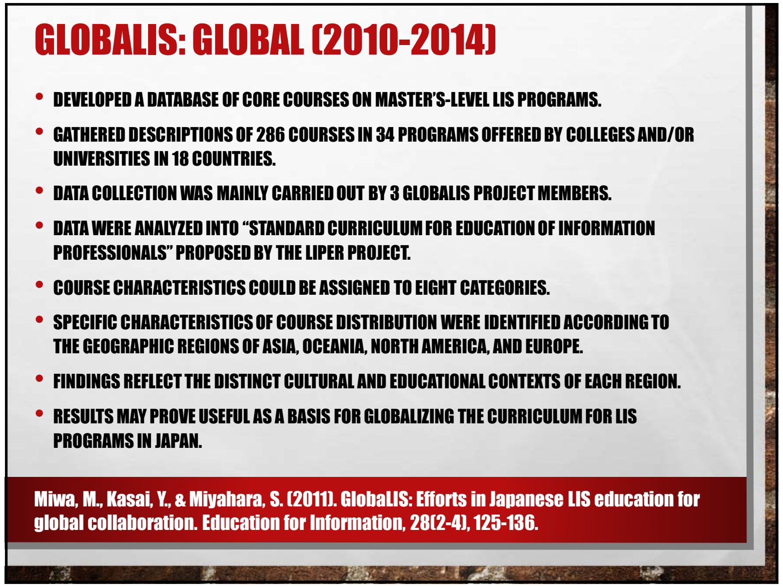


LIPER: JAPAN (2003-2006)

Professional Academic Librarian
Professional Public Librarian
Professional School Library and Media Specialist
Special Medical Legal Handicapped

Core Areas
- Introduction to LIS
- Information Users
- Information Media
- Information Services
- Information systems
- Management
- Digital Resource

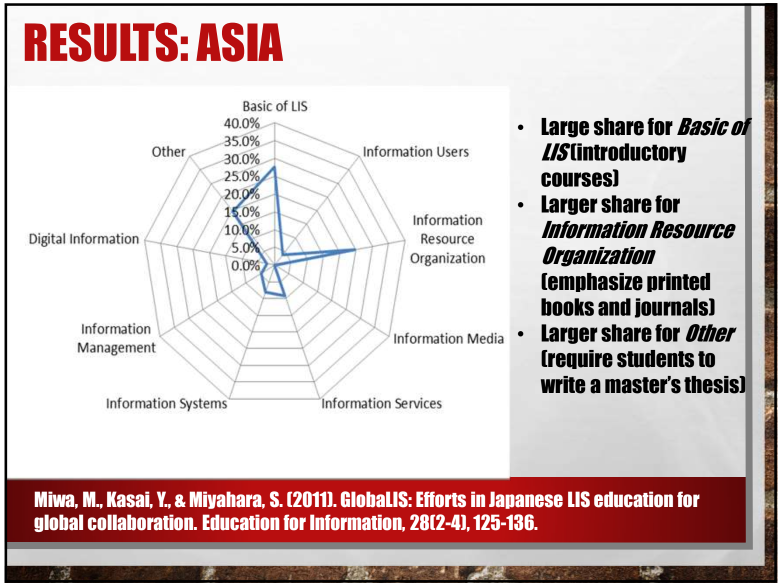
Miwa, M., Ueda, S., Nemoto, A., Oda, M., Nagata, H., & Horikawa, T. (2006, August). Final results of the LIPER project in Japan. In Proceedings of the World Library and Information Congress: 72nd IFLA General Conference and Council:" Libraries: Dynamic Engines for the Knowledge and Information Society,"(http://www. ifla. org/IV/ifla72/papers/107-Miwa-en. pdf).



GLOBALIS: GLOBAL (2010-2014)

- DEVELOPED A DATABASE OF CORE COURSES ON MASTER'S-LEVEL LIS PROGRAMS.
- GATHERED DESCRIPTIONS OF 286 COURSES IN 34 PROGRAMS OFFERED BY COLLEGES AND/OR UNIVERSITIES IN 18 COUNTRIES.
- DATA COLLECTION WAS MAINLY CARRIED OUT BY 3 GLOBALIS PROJECT MEMBERS.
- DATA WERE ANALYZED INTO "STANDARD CURRICULUM FOR EDUCATION OF INFORMATION PROFESSIONALS" PROPOSED BY THE LIPER PROJECT.
- COURSE CHARACTERISTICS COULD BE ASSIGNED TO EIGHT CATEGORIES.
- SPECIFIC CHARACTERISTICS OF COURSE DISTRIBUTION WERE IDENTIFIED ACCORDING TO THE GEOGRAPHIC REGIONS OF ASIA, OCEANIA, NORTH AMERICA, AND EUROPE.
- FINDINGS REFLECT THE DISTINCT CULTURAL AND EDUCATIONAL CONTEXTS OF EACH REGION.
- RESULTS MAY PROVE USEFUL AS A BASIS FOR GLOBALIZING THE CURRICULUM FOR LIS PROGRAMS IN JAPAN.

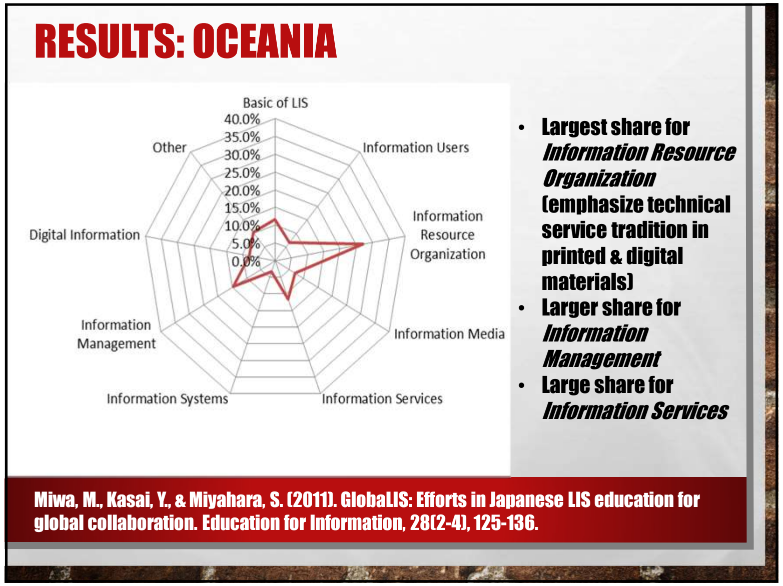
Miwa, M., Kasai, Y., & Miyahara, S. (2011). GlobaLIS: Efforts in Japanese LIS education for global collaboration. Education for Information, 28(2-4), 125-136.



RESULTS: ASIA

- Large share for ***Basic of LIS*** (introductory courses)
- Larger share for ***Information Resource Organization*** (emphasize printed books and journals)
- Larger share for ***Other*** (require students to write a master's thesis)

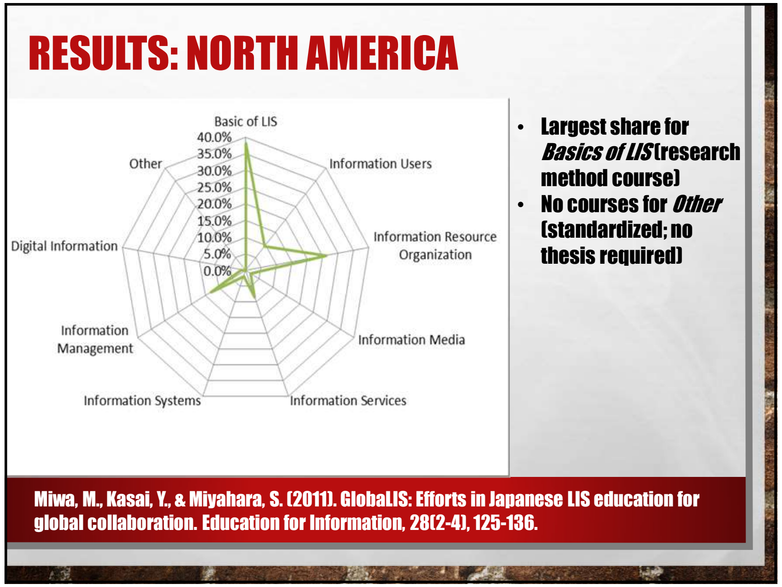
Miwa, M., Kasai, Y., & Miyahara, S. (2011). GlobaLIS: Efforts in Japanese LIS education for global collaboration. Education for Information, 28(2-4), 125-136.



RESULTS: OCEANIA

- Largest share for ***Information Resource Organization*** (emphasize technical service tradition in printed & digital materials)
- Larger share for ***Information Management***
- Large share for ***Information Services***

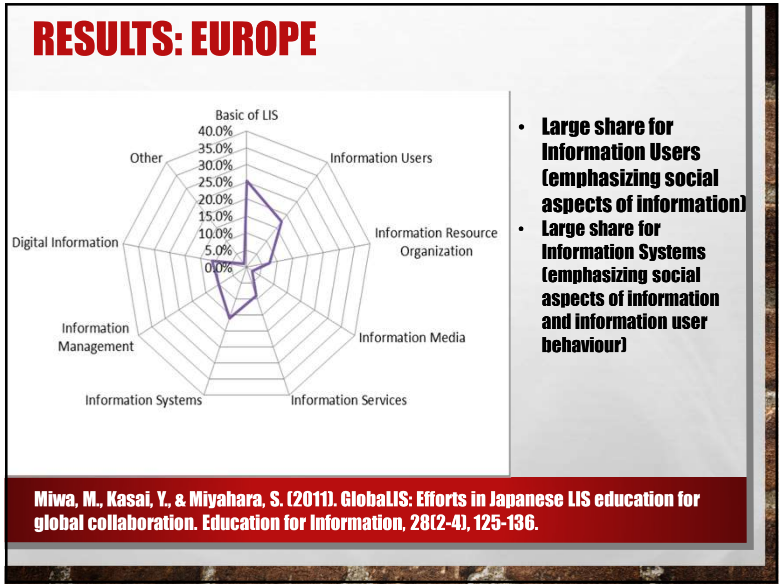
Miwa, M., Kasai, Y., & Miyahara, S. (2011). GlobaLIS: Efforts in Japanese LIS education for global collaboration. Education for Information, 28(2-4), 125-136.



RESULTS: NORTH AMERICA

- Largest share for ***Basics of LIS*** (research method course)
- No courses for ***Other*** (standardized; no thesis required)

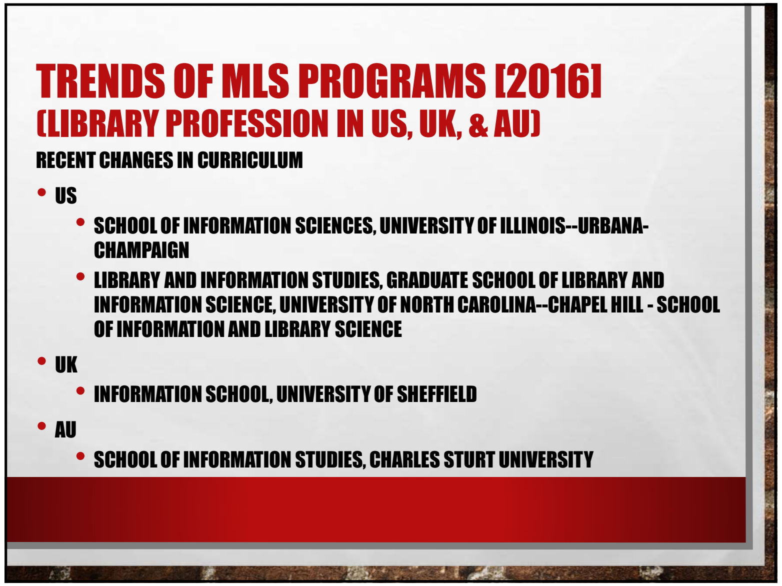
Miwa, M., Kasai, Y., & Miyahara, S. (2011). GlobaLIS: Efforts in Japanese LIS education for global collaboration. Education for Information, 28(2-4), 125-136.



RESULTS: EUROPE

- **Large share for Information Users (emphasizing social aspects of information)**
- **Large share for Information Systems (emphasizing social aspects of information and information user behaviour)**

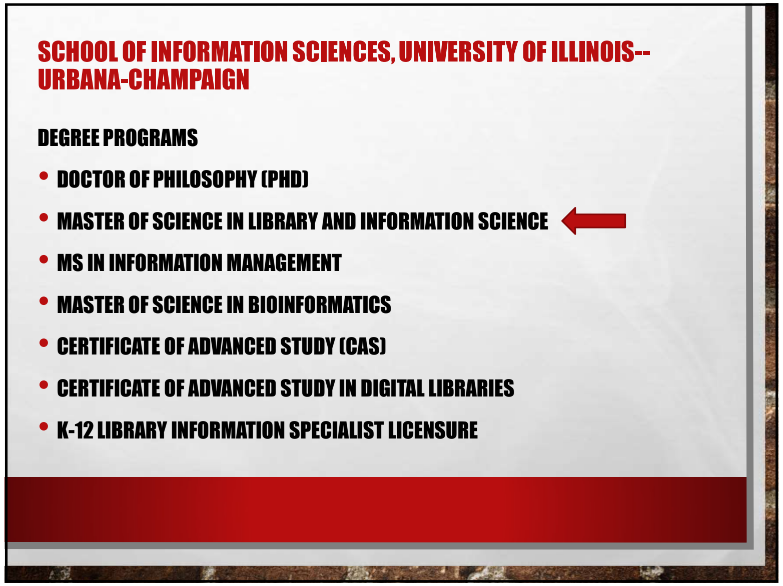
Miwa, M., Kasai, Y., & Miyahara, S. (2011). GlobaLIS: Efforts in Japanese LIS education for global collaboration. Education for Information, 28(2-4), 125-136.



TRENDS OF MLS PROGRAMS [2016]
(LIBRARY PROFESSION IN US, UK, & AU)

RECENT CHANGES IN CURRICULUM

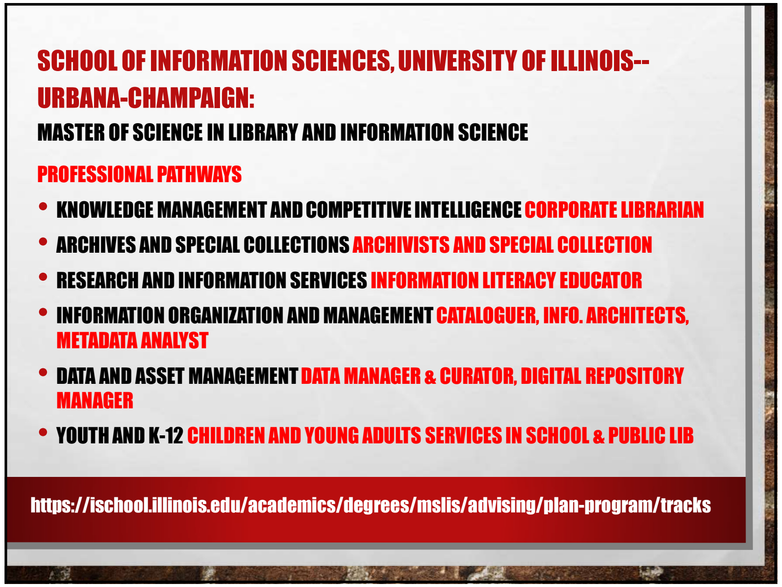
- US
  - SCHOOL OF INFORMATION SCIENCES, UNIVERSITY OF ILLINOIS--URBANA-CHAMPAIGN
  - LIBRARY AND INFORMATION STUDIES, GRADUATE SCHOOL OF LIBRARY AND INFORMATION SCIENCE, UNIVERSITY OF NORTH CAROLINA--CHAPEL HILL - SCHOOL OF INFORMATION AND LIBRARY SCIENCE
- UK
  - INFORMATION SCHOOL, UNIVERSITY OF SHEFFIELD
- AU
  - SCHOOL OF INFORMATION STUDIES, CHARLES STURT UNIVERSITY



SCHOOL OF INFORMATION SCIENCES, UNIVERSITY OF ILLINOIS--URBANA-CHAMPAIGN

DEGREE PROGRAMS

- DOCTOR OF PHILOSOPHY (PHD)
- MASTER OF SCIENCE IN LIBRARY AND INFORMATION SCIENCE
- MS IN INFORMATION MANAGEMENT
- MASTER OF SCIENCE IN BIOINFORMATICS
- CERTIFICATE OF ADVANCED STUDY (CAS)
- CERTIFICATE OF ADVANCED STUDY IN DIGITAL LIBRARIES
- K-12 LIBRARY INFORMATION SPECIALIST LICENSURE



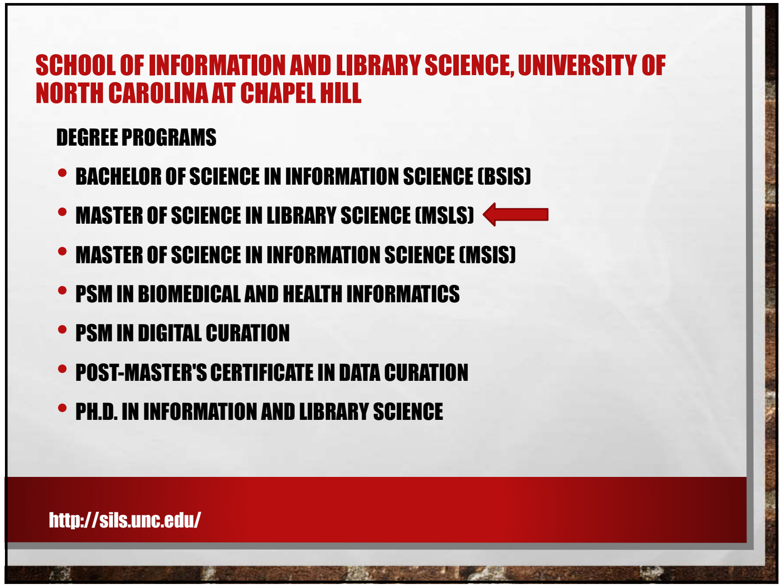
SCHOOL OF INFORMATION SCIENCES, UNIVERSITY OF ILLINOIS--URBANA-CHAMPAIGN:

MASTER OF SCIENCE IN LIBRARY AND INFORMATION SCIENCE

PROFESSIONAL PATHWAYS

- KNOWLEDGE MANAGEMENT AND COMPETITIVE INTELLIGENCE CORPORATE LIBRARIAN
- ARCHIVES AND SPECIAL COLLECTIONS ARCHIVISTS AND SPECIAL COLLECTION
- RESEARCH AND INFORMATION SERVICES INFORMATION LITERACY EDUCATOR
- INFORMATION ORGANIZATION AND MANAGEMENT CATALOGUER, INFO. ARCHITECTS, METADATA ANALYST
- DATA AND ASSET MANAGEMENT DATA MANAGER & CURATOR, DIGITAL REPOSITORY MANAGER
- YOUTH AND K-12 CHILDREN AND YOUNG ADULTS SERVICES IN SCHOOL & PUBLIC LIB

https://ischool.illinois.edu/academics/degrees/mslis/advising/plan-program/tracks



SCHOOL OF INFORMATION AND LIBRARY SCIENCE, UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL

DEGREE PROGRAMS

- BACHELOR OF SCIENCE IN INFORMATION SCIENCE (BSIS)
- MASTER OF SCIENCE IN LIBRARY SCIENCE (MSLS)
- MASTER OF SCIENCE IN INFORMATION SCIENCE (MSIS)
- PSM IN BIOMEDICAL AND HEALTH INFORMATICS
- PSM IN DIGITAL CURATION
- POST-MASTER'S CERTIFICATE IN DATA CURATION
- PH.D. IN INFORMATION AND LIBRARY SCIENCE

http://sils.unc.edu/

SCHOOL OF INFORMATION AND LIBRARY SCIENCE, UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL

MASTER OF SCIENCE IN LIBRARY SCIENCE (MSLS)

PRE-REQUISITE: INFORMATION TECHNOLOGY COMPETENCY REQUIREMENT

AREAS OF SPECIALIZATION

- ACADEMIC LIBRARIES
- ADULT SERVICES IN PUBLIC LIBRARIES
- ARCHIVES AND RECORDS MANAGEMENT
- CHILDREN AND YOUTH SERVICES
- DIGITAL LIBRARIES
- ORGANIZATION OF INFORMATION AND MATERIALS
- REFERENCE
- SCHOOL LIBRARY MEDIA
- SPECIAL LIBRARIES AND KNOWLEDGE MANAGEMENT

https://sils.unc.edu/programs/graduate/msls

ACADEMIC LIBRARIES

Specialization in Academic Libraries (MSLS)

Librarians in small academic libraries are often generalists and perform many types of tasks. In larger academic libraries, most librarians are more specialized and spend most of their time working in one area. This table covers some of the most common specializations with suggested courses for each.

	Focus on User Services	Focus on Collections	Focus on Management	Focus on Cataloging
Required Courses	**---- Highly Recommended ----**			
261 Tools for Information Literacy or successful completion of Technology Competency Test** 500 Human Information Interactions 501 Information Resources & Services 513 Resource Selection and Evaluation 520 Organization of Information 581 Research Methods Overview 585 Management for Info Professionals 781 Proposal Preparation and Development 992 Master's Paper (related to academic library issues)	502 User Education 701 Info Retrieval Search Strategies 841 Seminar in Academic Libraries At least ONE of: 703 Science Information 704 Humanities and Social Science Info 705 Health Sciences Info 707 Govt Documents 709 Business Information 746 Music Librarianship 749: Art and Visual Information Management	700 Scholarly Communication 740 Digital Libraries 841 Seminar in Academic Libraries At least ONE of: 703 Science Information 704 Humanities and Social Science Info 705 Health Sciences Info 707 Govt Documents 709 Business Information 746 Music Librarianship 749: Art and Visual Information Management 857 Seminar in Rare Book Collections	690 Human Resources Management (1.5) 782 Library Assessment 786 Marketing of Information Services 841 Seminar in Academic Libraries A t least one course in Financial Management from SILS, School of Government or Kenan Flagler Business School	525 Electronic Records Management 720 Metadata 721 Cataloging Theory and Practice 752 Digital Preservation and Access 841 Seminar in Academic Libraries
	---- Recommended ----			
	523 Database Systems I 582 Systems Analysis 740 Digital Libraries 739 Info Services for Special Populations 795 Prof Field Experience** 888 Seminar in Teaching and Academic Life	556 Intro to Archives 553 Database Systems I 582 Systems Analysis 752 Digital Preservation and Access 753 Preservation of Library and Archive Materials 795 Prof Field Experience	503 Communication Skills 523 Database Systems I 582 Systems Analysis 584 Information Ethics 795 Prof Field Experience	523 Database Systems I 582 Systems Analysis 795 Prof Field Experience

**** INLS 261 does not count toward the 48 credit hours required for the master's degree**

Note: Work experience in Academic Libraries is an almost universal requirement for finding a position after graduation. If you do not have such experience (for example working as a graduate assistant in an academic library), the Professional Field Experience course is especially important. Students are encouraged to review the courses offered as INLS 690 or INLS 890 (special topics) each semester, as some of these courses may be relevant to this specialization.

ADULT SERVICES IN PUBLIC LIBRARIES

Specialization in Adult Services in Public Libraries (MSLS)

Required Courses	Highly Recommended	Recommended Courses
261 Tools for Information Literacy or successful completion of the Technology Competency Test 500 Human Information Interactions 501 Information Resources and Services 513 Resource Selection and Evaluation 520 Organization of Information 581 Research Methods Overview 585 Management for Information Professionals 781 Proposal Preparation and Presentation (1.5 credits) 992 Masters Paper	551 History of Libraries and Other Information-Related Cultural Institutions 572 Web Development I 582 Systems Analysis 584 Information Ethics 739 Information Services for Specific Populations 786 Marketing of Information Services 842 Seminar in Popular Materials in Libraries 843 Seminar in Public Libraries	502 User Education 525 Electronic Records Management 530 Young Adult Literature and Related Materials 550 History of the Book and Other Information Formats 554 Cultural Institutions 556 Introduction to Archives and Record Management 703 Science Information 704 Humanities and Social Science Information 707 Government Documents 709 Business Information 718 User Interface Design 721 Cataloging Theory and Practice 740 Digital Libraries: Principles and Applications

Note: Students are encouraged to review the courses offered as INLS 690 or INLS 890 (special topics) each semester, as some of these courses may be relevant to this specialization.

**INLS 261 does not count toward the 48 credit hours required for the master's degree

For a complete list of courses visit the SILS Courses Page

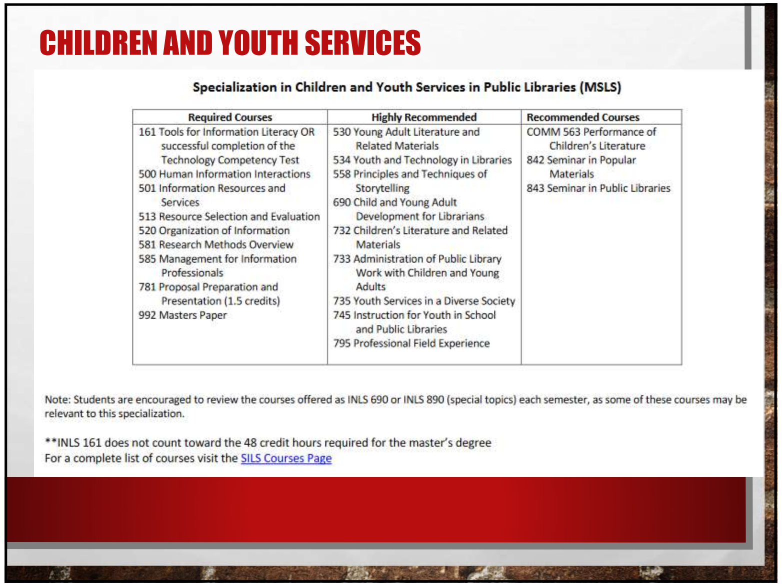
ARCHIVES AND RECORDS MANAGEMENT

Concentration in Archives and Records Management (ARM) (MSLS)

Required Courses	Core Archival Functions Courses (complete at least one course related to each of the archival functions)			
	Reference, Access and User Services	**Electronic Records Management**	**Preservation**	**Archival Appraisal**
161 Tools for Information Literacy or successful completion of Technology Competency Test ** 500 Human Information Interactions 501 Information Resources and Services 513 Resource Selection and Evaluation *(can substitute 513 with 755)* 520 Organization of Information** 581 Research Methods Overview 585 Management for Information Professionals 781 Proposal Preparation and Development (1.5) 992 Master's Paper (topic should be relevant to ARM) **Required ARM Concentration Courses** 556 Introduction to Archives and Record Management	501 Information Resources & Services 754 Access, Outreach & Public Service in Cultural Heritage Repositories	525 Electronic Records Management	752 Digital Preservation and Access 753 Preservation of Library & Archive Materials	755 Archival Appraisal *(fulfills INLS 513 requirement)*
	Archival Description	**Systems Analysis**	**Design and Development of Access & Delivery Systems**	
	757 Principles and Practices in Archival Description	582 Systems Analysis and Design	465 Understanding IT for Managing Digital Collections 509 Information Retrieval 523 Database Systems I 624 Policy-Based Data Management 720 Metadata Architectures and Applications 756 Data Management and Curation	
	Suggested Electives			
	740 Digital Libraries: Principles and Applications 857 Seminar in Rare Book Collections			

**INLS 161 does not count toward the 48 credit hours required for the master's degree; INLS 520 should be taken before INLS 757

Note: Students are encouraged to review the courses offered as INLS 690 or INLS 890 (special topics) each semester, as some of these courses may be relevant to this specialization. Course Descriptions are available on the SILS Courses Page.



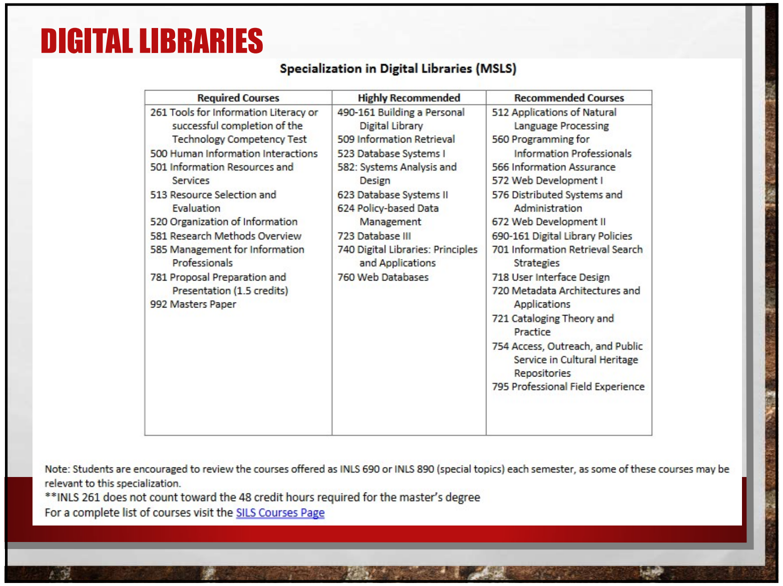
CHILDREN AND YOUTH SERVICES

Specialization in Children and Youth Services in Public Libraries (MSLS)

Required Courses	Highly Recommended	Recommended Courses
161 Tools for Information Literacy OR successful completion of the Technology Competency Test 500 Human Information Interactions 501 Information Resources and Services 513 Resource Selection and Evaluation 520 Organization of Information 581 Research Methods Overview 585 Management for Information Professionals 781 Proposal Preparation and Presentation (1.5 credits) 992 Masters Paper	530 Young Adult Literature and Related Materials 534 Youth and Technology in Libraries 558 Principles and Techniques of Storytelling 690 Child and Young Adult Development for Librarians 732 Children's Literature and Related Materials 733 Administration of Public Library Work with Children and Young Adults 735 Youth Services in a Diverse Society 745 Instruction for Youth in School and Public Libraries 795 Professional Field Experience	COMM 563 Performance of Children's Literature 842 Seminar in Popular Materials 843 Seminar in Public Libraries

Note: Students are encouraged to review the courses offered as INLS 690 or INLS 890 (special topics) each semester, as some of these courses may be relevant to this specialization.

**INLS 161 does not count toward the 48 credit hours required for the master's degree
For a complete list of courses visit the SILS Courses Page

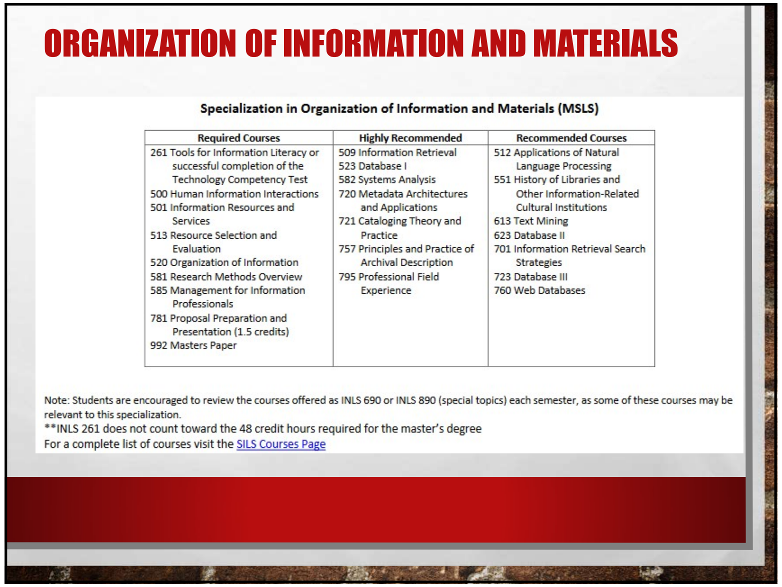


DIGITAL LIBRARIES

Specialization in Digital Libraries (MSLS)

Required Courses	Highly Recommended	Recommended Courses
261 Tools for Information Literacy or successful completion of the Technology Competency Test 500 Human Information Interactions 501 Information Resources and Services 513 Resource Selection and Evaluation 520 Organization of Information 581 Research Methods Overview 585 Management for Information Professionals 781 Proposal Preparation and Presentation (1.5 credits) 992 Masters Paper	490-161 Building a Personal Digital Library 509 Information Retrieval 523 Database Systems I 582: Systems Analysis and Design 623 Database Systems II 624 Policy-based Data Management 723 Database III 740 Digital Libraries: Principles and Applications 760 Web Databases	512 Applications of Natural Language Processing 560 Programming for Information Professionals 566 Information Assurance 572 Web Development I 576 Distributed Systems and Administration 672 Web Development II 690-161 Digital Library Policies 701 Information Retrieval Search Strategies 718 User Interface Design 720 Metadata Architectures and Applications 721 Cataloging Theory and Practice 754 Access, Outreach, and Public Service in Cultural Heritage Repositories 795 Professional Field Experience

Note: Students are encouraged to review the courses offered as INLS 690 or INLS 890 (special topics) each semester, as some of these courses may be relevant to this specialization.
**INLS 261 does not count toward the 48 credit hours required for the master's degree
For a complete list of courses visit the SILS Courses Page

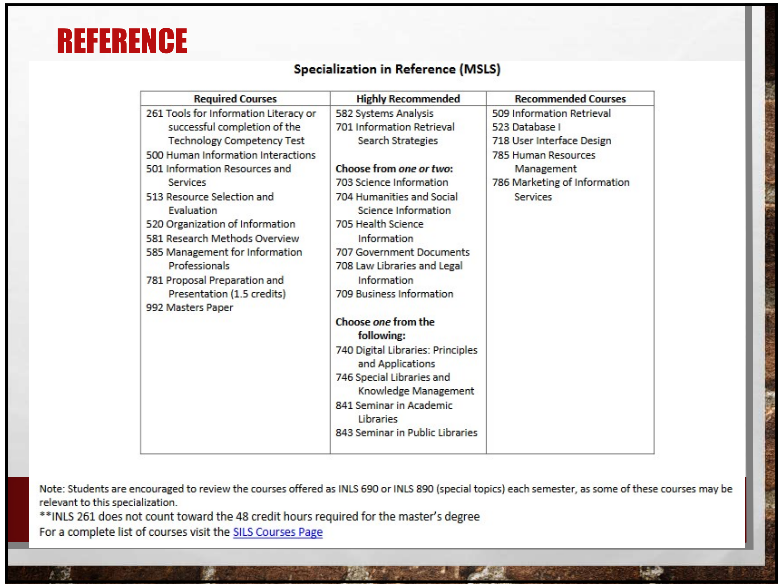


ORGANIZATION OF INFORMATION AND MATERIALS

Specialization in Organization of Information and Materials (MSLS)

Required Courses	Highly Recommended	Recommended Courses
261 Tools for Information Literacy or successful completion of the Technology Competency Test 500 Human Information Interactions 501 Information Resources and Services 513 Resource Selection and Evaluation 520 Organization of Information 581 Research Methods Overview 585 Management for Information Professionals 781 Proposal Preparation and Presentation (1.5 credits) 992 Masters Paper	509 Information Retrieval 523 Database I 582 Systems Analysis 720 Metadata Architectures and Applications 721 Cataloging Theory and Practice 757 Principles and Practice of Archival Description 795 Professional Field Experience	512 Applications of Natural Language Processing 551 History of Libraries and Other Information-Related Cultural Institutions 613 Text Mining 623 Database II 701 Information Retrieval Search Strategies 723 Database III 760 Web Databases

Note: Students are encouraged to review the courses offered as INLS 690 or INLS 890 (special topics) each semester, as some of these courses may be relevant to this specialization.
**INLS 261 does not count toward the 48 credit hours required for the master's degree
For a complete list of courses visit the SILS Courses Page



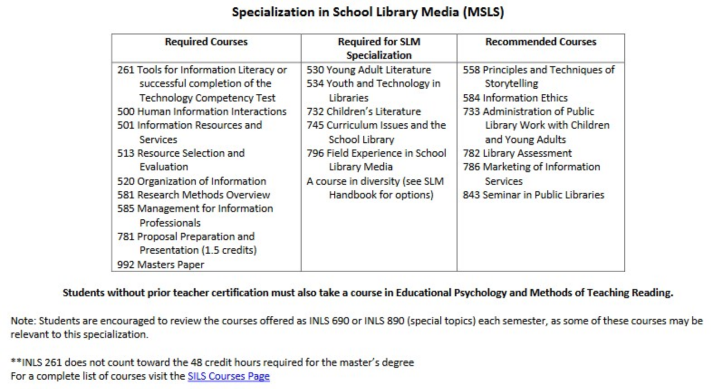
REFERENCE

Specialization in Reference (MSLS)

Required Courses	Highly Recommended	Recommended Courses
261 Tools for Information Literacy or successful completion of the Technology Competency Test 500 Human Information Interactions 501 Information Resources and Services 513 Resource Selection and Evaluation 520 Organization of Information 581 Research Methods Overview 585 Management for Information Professionals 781 Proposal Preparation and Presentation (1.5 credits) 992 Masters Paper	582 Systems Analysis 701 Information Retrieval Search Strategies **Choose from *one or two*:** 703 Science Information 704 Humanities and Social Science Information 705 Health Science Information 707 Government Documents 708 Law Libraries and Legal Information 709 Business Information **Choose *one* from the following:** 740 Digital Libraries: Principles and Applications 746 Special Libraries and Knowledge Management 841 Seminar in Academic Libraries 843 Seminar in Public Libraries	509 Information Retrieval 523 Database I 718 User Interface Design 785 Human Resources Management 786 Marketing of Information Services

Note: Students are encouraged to review the courses offered as INLS 690 or INLS 890 (special topics) each semester, as some of these courses may be relevant to this specialization.
**INLS 261 does not count toward the 48 credit hours required for the master's degree
For a complete list of courses visit the SILS Courses Page

SCHOOL LIBRARY MEDIA



Specialization in School Library Media (MSLS)

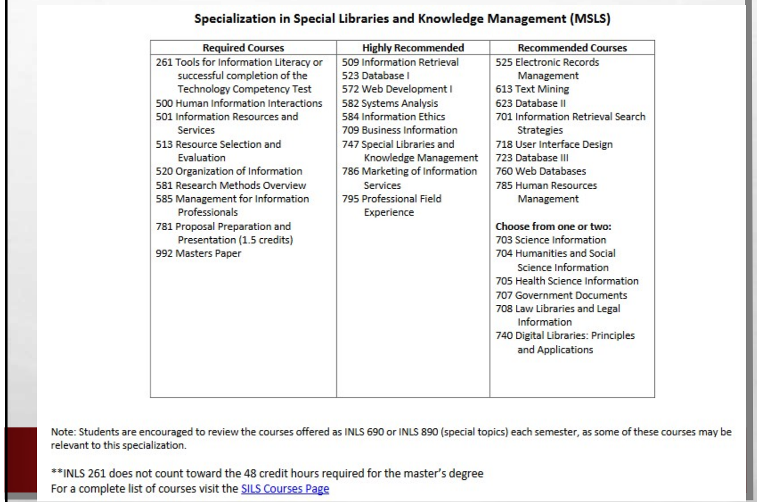
Required Courses	Required for SLM Specialization	Recommended Courses
261 Tools for Information Literacy or successful completion of the Technology Competency Test 500 Human Information Interactions 501 Information Resources and Services 513 Resource Selection and Evaluation 520 Organization of Information 581 Research Methods Overview 585 Management for Information Professionals 781 Proposal Preparation and Presentation (1.5 credits) 992 Masters Paper	530 Young Adult Literature 534 Youth and Technology in Libraries 732 Children's Literature 745 Curriculum Issues and the School Library 796 Field Experience in School Library Media A course in diversity (see SLM Handbook for options)	558 Principles and Techniques of Storytelling 584 Information Ethics 733 Administration of Public Library Work with Children and Young Adults 782 Library Assessment 786 Marketing of Information Services 843 Seminar in Public Libraries

Students without prior teacher certification must also take a course in Educational Psychology and Methods of Teaching Reading.

Note: Students are encouraged to review the courses offered as INLS 690 or INLS 890 (special topics) each semester, as some of these courses may be relevant to this specialization.

**INLS 261 does not count toward the 48 credit hours required for the master's degree
For a complete list of courses visit the SILS Courses Page

SPECIAL LIBRARIES AND KNOWLEDGE MANAGEMENT



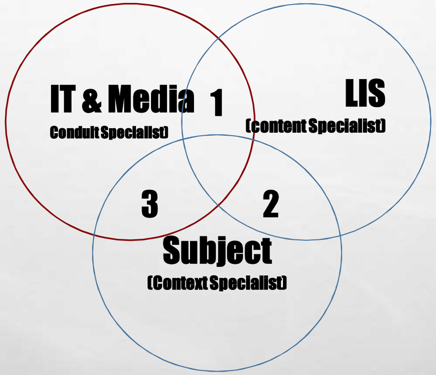
Specialization in Special Libraries and Knowledge Management (MSLS)

Required Courses	Highly Recommended	Recommended Courses
261 Tools for Information Literacy or successful completion of the Technology Competency Test 500 Human Information Interactions 501 Information Resources and Services 513 Resource Selection and Evaluation 520 Organization of Information 581 Research Methods Overview 585 Management for Information Professionals 781 Proposal Preparation and Presentation (1.5 credits) 992 Masters Paper	509 Information Retrieval 523 Database I 572 Web Development I 582 Systems Analysis 584 Information Ethics 709 Business Information 747 Special Libraries and Knowledge Management 786 Marketing of Information Services 795 Professional Field Experience	525 Electronic Records Management 613 Text Mining 623 Database II 701 Information Retrieval Search Strategies 718 User Interface Design 723 Database III 760 Web Databases 785 Human Resources Management **Choose from one or two:** 703 Science Information 704 Humanities and Social Science Information 705 Health Science Information 707 Government Documents 708 Law Libraries and Legal Information 740 Digital Libraries: Principles and Applications

Note: Students are encouraged to review the courses offered as INLS 690 or INLS 890 (special topics) each semester, as some of these courses may be relevant to this specialization.

**INLS 261 does not count toward the 48 credit hours required for the master's degree
For a complete list of courses visit the SILS Courses Page

INFORMATION SCHOOL, UNIVERSITY OF SHEFFIELD
MODEL OF BLENDED INFORMATION PROFESSIONALS



IT & Media
(Conduit Specialist)

LIS
(content Specialist)

Subject
(Context Specialist)

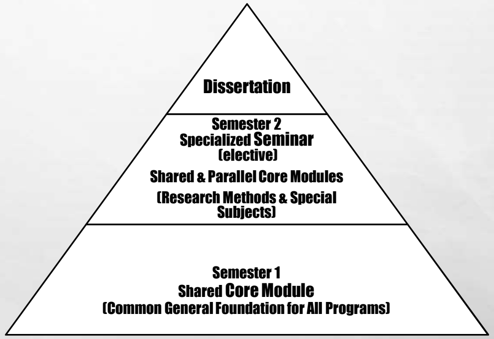
1

2

3

1. **E-contents & DL Specialist**
2. **Discipline-based Info & Knowledge Specialist**
3. **Context-specific Technology & Media Specialist**

INFORMATION SCHOOL, UNIVERSITY OF SHEFFIELD
MODEL OF BLENDED INFORMATION PROFESSIONALS



Dissertation

Semester 2
Specialized Seminar
(elective)
Shared & Parallel Core Modules
(Research Methods & Special Subjects)

Semester 1
Shared Core Module
(Common General Foundation for All Programs)

INFORMATION SCHOOL, UNIVERSITY OF SHEFFIELD
MODEL OF BLENDED INFORMATION PROFESSIONALS

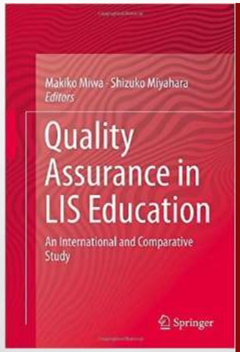
QAA	Core Topics	ML Core Module	Curriculum Development
Information environment and policy context	Social context of information use	･Libraries, information and society 1 ･Library visit (optional) ･Essential professional skills (workshop, optional)	･New digital storytelling activity on information society themes ･Shared groupwork with MSs IS ･More on information policy • More on special/workplace LIS
Information agencies and professional institutions			
Information resources and collection maangement	Information literacy and information behaviour	･Information sources and information literacy ･Information literacy practitioner seminar (optional)	
Information literacy and user support			
Information retrieval and knowledge organization	Information retrieval and knowledge organization	･Information retrieval: search engines and digital libraries	• More on knowledge organization
Information services and intermediary roles	Library, information and knowledge services	･Libraries, information and soriety 2 ･academic and research (special) libraries ･Libraries for children and young people ･Public libraries	• Reading group activities and imaginative literature seminar
Management and organizational behaviour	Management and organizational behaviour	･Management for LIS 1 ･Management for LIS 22	• Shared session with MSs
Knowledge acquisition and Study	Sheffield graduates attributes	･Research methods ･Dissertation (equivalent to 3 modules) ･Essential computer skills(lectre + practices, opeional)	
Communication and Interpersonal skills			
Information and communications technology			

SCHOOL OF INFORMATION STUDIES, CHARLES STURT UNIVERSITY

DEGREE PROGRAMS

- **GRADUATE DIPLOMA OF INFORMATION STUDIES (ON-CAMPUS/DISTANCE)**
  - 404 FOUNDATION OF INFORMATION STUDIES
  - 406 INFORMATION SOURCES & SERVICES
  - 407 PROFESSIONAL STUDY VISIT
  - 408 PROFESSIONAL PLACEMENT
  - 415 MANAGEMENT OF INFORMATION AGENCIES
  - 425 DESCRIBING & ANALYSING INFORMATION RESOURCES
  - 429 THE INFORMATION SOCIETY
  - 435 COLLECTIONS
  - 447 RESEARCH IN PRACTICE
- **MASTER OF INFORMATION STUDIES WITH SPECIALIZATIONS (ON-CAMPUS/DISTANCE)**
  - CHILDREN'S LIBRARIANSHIP
  - COMMUNITY INFORMATICS
  - INFORMATION ARCHITECTURE
  - INFORMATION AND KNOWLEDGE MANAGEMENT
  - LIBRARIANSHIP
  - RECORDS AND ARCHIVAL MANAGEMENT
- **MASTER OF EDUCATION: TEACHER LIBRARIANSHIP (DISTANCE)**

TENDS IN ASIA & PACIFIC REGION


Makiko Miwa · Shizuko Miyahara
Editors
Quality Assurance in LIS Education
An International and Comparative Study
Springer

**Miwa, M. & Miyahara, S. eds.
Springer, 2014**

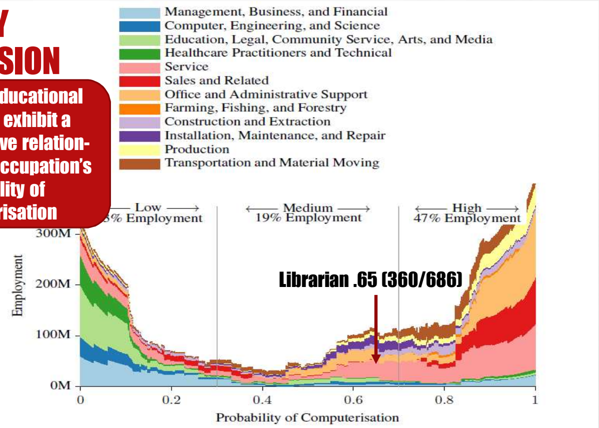
Chapter 1: GlobaLIS: Toward the Regional Cooperation in the Education of Library and Information Professionals in the Asia-Pacific Region / Makiko Miwa
Chapter 2: Regional Quality Assurance System for Higher Education in Southeast Asia / Shizuko Miyahara
Chapter 3: International Developments in School Library Studies: A Report on the School Library Initiatives for Asia & Pacific (SLAP) Forum / Yumiko Kasai
Chapter 4: Is the GALÁPAGOS Phenomenon Over? : Second Consideration of Japanese LIS Education in the International Setting / Akira Nemoto
Chapter 5: Qualitatively maintaining library and information science education in China / Li Changqing
Chapter 6: LIS Education and Quality Assurance System in Asia-Pacific: Taiwan / Chihfeng P. Lin
Chapter 7: LIS Education and Quality Assurance System in Asia-Pacific: Malaysia / Mohd Sharif Mohd Saad, Rusnah Johare, Fuziah Mohd Nadzar
Chapter 8: LIS Education: Quality Assurance System in the Philippines / Lourdes T. David
Chapter 9: LIS Education and Quality Assurance System in Asia-Pacific Region Thailand: Recent trends and issues / Sujin Butdisuwan
Chapter 10: LIS Education and Quality Assurance System in Asia Pacific: Indonesia
L. Sulistyo-Basuki
Chapter 11: Current Trends of Quality Assurance Models in LIS Education / Anna Maria Tammaro
Chapter 12: Accreditation in North America, A unique Quality Assurance Program / Beverly P. Lynch
Chapter 13: Accreditation Processes in Latin America: AN Exploration into the Cases of Library and Information Science (LIS) Programs in Mexico, Colombia, and COSTA RICA / Mónica Arakaki
Chapter 14: The Diversity of LIS Programs in Southeast Asia / Shizuko MIYAHARA
Chapter 15 : Regional Quality Assurance System: Gulf Cooperation Council (GCC) Member Nations in Middle Eas / Sajjad ur Rehman

FUTURE?

OUR FUTURE?

LIBRARY PROFESSION

wages and educational attainment exhibit a strong negative relation-ship with an occupation's probability of computerisation



Librarian .65 (360/686)

Frey, CB; Osborne, A. (2013) THE FUTURE OF EMPLOYMENT: HOW SUSCEPTIBLE ARE JOBS TO COMPUTERISATION? Technological Forecasting and Social Change v.114, p.290

OUR FUTURE?

WHAT ARE INFORMATION PROFESSIONALS' PERMANENT TRAITS?

- ORGANIZE, MANAGE AND ANALYSE DATA & KNOWLEDGE => ANALYTICS
- CONNECT PEOPLE TO A VARIETY OF INFORMATION SOURCES => INTERMEDIARY
- EVALUATE INFORMATION RESOURCES AND INFORMATION => EVALUATOR
- SUPPORT INFORMATION LITERACY SKILLS => EDUCATOR
- COMMUNICATOR

SKILLS & KNOWLEDGE EXPECTED OF LIBRARIANS

- REINFORCE BASIC SKILLS: FLEXIBILITY, LEADERSHIP, COMMUNICATION FOR ADAPTING CHANGES
- APPLY UP-TO-DATE INFORMATION AND COMMUNICATION TECHNOLOGY FOR NEGOTIATING WITH IT PEOPLE
- DEVELOP KNOWLEDGE BASES INCLUDING LIBRARY, ARCHIVES, AND RECORDS FOR MLA COOPERATION
- RESEARCH METHODS FOR EVIDENCE-BASED PRACTICES
- SUBJECT SPECIFIC KNOWLEDGE FOR APPLYING MLS SKILLS IN A VARIETY OF DOMAIN

MERITS OF LIS PROFESSION

- LONG AND HEALTHY LIFE: HEALTH AND MEDICAL INFORMATION
- SUCCESS IN BUSINESS AND MANAGEMENT: BUSINESS INFORMATION
- ADVANTAGE IN LIFE-LONG LEARNING: SCI&TECH INFORMATION
- PROTECTION FROM LAWSUIT: LEGAL INFORMATION

⇒SHARE THESE MERITS WITH COLLEAGUES AND CLIENTS

⇒ENHANCE ENTREPRENEURSHIP

THANK YOU FOR YOUR ATTENTION!

MAKIKO MIWA MIWAMAKI@OUJ.AC.JP

DATA SCIENTIST CURRICULUM (OUJ)

- USER SURVEY AND RESEARCH METHODS
- BASIC METHODS OF SOCIAL RESEARCH
- SOCIAL RESEARCH
- THE USE OF GEOSPATIAL INFORMATION IN DAILY LIFE
- MATHEMATICAL APPROACHES TO PROBLEM SOLVING
- SOCIAL CITY
- INTRODUCTION TO REAL AND COMPLEX ANALYSIS
- ◆NUMERICAL COMPUTING AND ANALYSIS
- ◆INTRODUCTION TO DATA ANALYTICS
- ◆DATABASE
- SENSIBILITY ENGINEERING
- DATA STRUCTURE AND PROGRAMMING
- EVOLVING ICT AND SUSTAINABLE SOCIETY
- NATURAL LANGUAGE PROCESSING
- BASICS OF JAVA PROGRAMMING
- ALGORITHMS AND PROGRAMMING
- INFORMATION SECURITY AND ETHICS
- EVERYDAY STATISTICS
- STATISTICS
- INTRODUCTION TO LINEAR ALGEBRA
- STATISTICS FOR PSYCHOLOGY
- INTRODUCTION TO SOCIAL STATISTICS
- AN INTRODUCTION TO CALCULUS
- MANAGEMENT SCIENCE
- MANAGEMENT ACCOUNTING
- BOOK KEEPING
- ◆MARKETING
- CASE-BASED CONTEMPORARY MANAGEMENT
- INTRODUCTION TO ECONOMICS
- CONTEMPORARY ECONOMICS

◆Required Courses

●Common ●Informatics ●Mathematics ●Business & Management

DATA SCIENTIST CURRICULUM (OUJ)

- 数値の処理と数値解析
- データの分析と知識発見
- データからの知識発見
- データベース
- マーケティング論
- ユーザ調査法
- 感性工学入門
- 身近な統計
- ケースで学ぶ現代経営学
- データ構造とプログラミング
- データ構造とプログラミング
- 統計学
- 統計学
- 経済学入門
- 現代経済学
- 入門線型代数
- 社会調査の基礎
- 社会調査
- 進化する情報社会
- 自然言語処理
- JAVAプログラミングの基礎
- アルゴリズムとプログラミング
- 生活における地理空間情報の活用
- 問題解決の数理
- ソーシャルシティ
- 心理統計法
- 社会統計学入門
- 情報セキュリティと情報倫理
- 解析入門
- 経営学概論
- 管理会計
- 初級簿記
- 入門微分積分
- 微分と積分