NOTE
Not all courses listed in the curriculum will be offered in a semester. Courses offered are subjected to availability of instructors and resources.

To build foundation skills across the breadth of the information studies field, students are encouraged to pursue the courses as below.

General Electives – Information Studies	
H6702 Research Methods in Human Information Behaviour	
H6713 Information Representation and Retrieval	
H6714 Information Organisation	
H6715 Information Management	
H6717 Information Professions: Heritage, Values and Ethics	
H6718 Management of Information Technologies in Organisations	
Library Science	**Information Analytics**
H6721 Collection Development and Management	H6729 Organisational Records Management
H6722 Cataloguing and Classification	H6730 Digital Libraries
H6723 Business & Management Information Sources & Services	H6750 Social Media Analytics
	H6751 Text and Web Mining
H6724 Children & Young Adults Information Sources & Services	H6752 Data Extraction Techniques
H6734 Reference and Information Discovery	H6753 User Metrics and Analytics
	CI6221 Information Visualisation
H6791 Social Sciences & Humanities Sources & Services	K6312 Information Mining and Analysis

H6702 Research Methods in Human Information Behaviour

This course provides an introduction to research methods as applied in the field of human information behaviour. Students will gain a foundational understanding of the major paradigms and theories of information behaviour, as well as the principles and techniques of

designing and evaluating research studies.

Paradigms in social science and human information behaviour research. Theories and models in human information behaviour. Research ethics. Research design and procedures. Conceptualization and operationalization. Sampling. Survey research. Experiments. Qualitative research. Nonreactive research. Data analysis methods. Scholarly writing. Evaluation of research quality.

H6713 Information Representation and Retrieval

This course provides an introduction on how information in different forms of documents can be represented, **organised** and indexed to support effective search and retrieval. It covers the main concepts of information retrieval, Boolean and Non Boolean models, use of standards and controlled vocabulary, and the design and evaluation of such retrieval systems.

Description and representation of information sources. Information retrieval systems principles. Organising information sources. Metadata. Natural language and controlled vocabularies. Information standards. Query structures and matching process: Boolean and Vector Space models. Visualising information. Designing and evaluating information retrieval systems. Image, multimedia and web information retrieval. Trends in information representation and retrieval.

H6714 Information Organisation

This course introduces the principles and practices of metadata creation, and the organisation of physical and digital information resources. Students will be given an overview of the prominent standards and tools in resources description, vocabulary control, classification, and metadata encoding.

Functions and purposes of information organisation systems. Process of metadata creation. Resource description and cataloguing. Descriptive metadata schemas. Authority control. Subject analysis and access. Controlled vocabulary. Taxonomy and folksonomy. Classification systems. Metadata encoding.

H6715 Information Management

This course introduces the basic concepts of information management – how information is identified, evaluated, collected, processed, stored and disseminated in profit and non-profit organisations. The emphasis is on context-based information and its management for planning and decision-making.

Importance of information in society. Information management in learning organisations. Information needs and information seeking in organisations. Information management at institutional and personal levels. Information management cycle and activities. Managing human, print and online information resources. Organisational information politics models. Information sharing tools and barriers. Role of information in strategic planning. Information collection through competitor intelligence, business intelligence, social intelligence and the use

of 'big data' sources. Marketing of information products and services. Outsourcing of information management activities. Organisational information audit.

H6717 Information Professions: Heritage, Values and Ethics

This course provides an overview of the broad heritage of information work, to give students an understanding and appreciation of the values/norms that inform this work, as well as the deep roots of many of the problems that continue to confront the information professions today.

Representing and recording information: from papyrus to ebooks. The social construction of scientific information systems. The tangled history of computing technology. Universal bibliography: Konrad Gesner to Paul Otlet to Google. Sorting things out: Linnaeus and Buffon to Dewey and Ranganathan. The social role & development of libraries: public, academic and special. Library history in Singapore. Ethical issues in information work: theories and practical concerns. Contemporary issues in information work.

H6718 Management of Information Technologies in Organisations

This course examines methods of strategic planning and management of information resources and technologies in libraries and other business organizations. It will cover the latest trends of the continuing evolution of library-related applications and other organizational information technologies. The challenges and opportunities presented by such rise of advanced technologies will also be explored. Tools and techniques for planning, implementing and managing technological change for libraries and information services in organisations. Technologies in organisations computing basics, network and database applications, libraries systems, collaborative software, communication technologies, social software, mobile software services and big data technologies. Human computer interaction and social aspects of information technologies.

H6721 Collection Development and Management

This course covers the principles and techniques used for developing, managing, and evaluating print and non-print materials. Students will also learn about the impact of contemporary issues including intellectual freedom, copyright and censorship on collection development and management activities.

Key concepts related to collection development and management. Community analysis and information needs assessment. Formulation of resource development and management policy. Censorship and intellectual freedom. Selection approaches and tools. Role and evaluation of library vendors. Access to and management of electronic information resources. Patron-Driven Acquisitions. Library consortia for collaborative collection development. Licensing and contract negotiation, Financial planning for collection development. Conservation and preservation of materials. Evaluation of collection using a variety of collection-centred and user-centred techniques. De-selection of materials.

H6722 Cataloguing and Classification

This course covers cataloguing and classification principles and practices, with special emphasis on the standards and systems in the library communities. Students will gain experience in conducting cataloguing work, which include bibliographic description, authority control, subject cataloguing, classification, and MARC encoding. A concentrated focus will be on the description and access of digital resources.

Principles and processes of bibliographic control. Bibliographic description standards (AACR2r, RDA). Name-title authority control. Subject cataloguing and indexing. Bibliographic classification (LCC). Faceted classification. Encoding of bibliographic records (MARC21). Descriptive and subject cataloguing of digital materials. Bibliographic utilities and integrated library systems (OCLC Connexion).

Prerequisite: Information Organisation or Instructor's consent.

H6723 Business & Management Information Sources & Services

This course provides an overview of the wide world of business information sources and services. Students will be exposed to the dimensions of business information, and both print and electronic resources. The types of business information services that can be provided by libraries and information centres will also be looked at.

Business print resources and databases. Government sources and services for business. Economic and industrial indicators. Marketing information resources. Investment information resources. Corporate information needs and services. Competitive intelligence and business. Intellectual property issues. Future trends in the provision of information to business.

H6724 Children & Young Adults Information Sources & Services

This course provides basic knowledge of children/young adult literature, the value of that literature in child development, and an understanding of the information needs of children and young adults in the digital age.

History of children's literature. The importance of children's literature. Preschool and primary years. Young adult literature. Electronic information sources for children & young adults. Information services. Storytelling and read alouds. Folktales & mythology. Special collections.

H6729 Organisational Records Management

This course introduces the main concepts and practices of managing records in organisations. It equips students with the necessary knowledge and skills to prepare them as managers of records in organisations.

Foundations and importance of records management. Analysing the context of records. Record creation and capture. Managing the appraisal, retention and disposal of records. Records storage and preservation. Design and implementation of records management. Disaster planning and recovery.

H6730 Digital Libraries

This course will focus on building digital libraries using open source tools. Students will learn how information methods and techniques – such as metadata, taxonomy, XML, full-text indexes, Web applications, and database systems – are used together to build digital libraries.

Concepts and evolution of digital libraries. Types of digital resources and metadata. Techniques to implement metadata-based browsing and full-text searching. User interfaces. Digital library management and policy including security, copyright, and preservation. System architecture, protocols, and services for interoperability. Tools for developing web-based digital library application.

H6734 Reference and Information Discovery

This course develops basic searching skills to effectively retrieve information using different information systems. It also familiarises students to key reference sources and activities, and how to manage a reference service.

Basic searching concepts and developing search strategies. Use of basic and advanced search features of a retrieval system. Various search techniques and result refinement. Use of database thesauri. Selection of online vendors and databases. Evaluation of search results. History and philosophy of reference service. Evaluation and selection of key reference sources. Conducting reference interviews. Marketing and promotion of information services. User education and instruction. Evaluation of reference services. Virtual reference services. Changing role of information professionals in new reference environment.

H6750 Social Media Analytics

This course develops analytical ability with respect to the variety of information provided by the web and social media applications. In providing an overview of cutting-edge social media analytics with an emphasis on applications to real life problems, students will learn about the mechanisms for observing behavioural and consumer generated information as well as the leading-edge technologies that aid in the collection and analysis of these data.

Techniques for managing, exploring, visualizing, and analysing data from social media applications. Strategic aspects of social media analytics. Metrices for assessing the effectiveness of social media strategies. Collecting, analysing and deriving insights from social media data. Social Network Analysis.

H6751 Text and Web Mining

This course is an introduction to text and web data mining. Students will learn how to analyse unstructured data (i.e. text contents), hyperlinks, and usage data on the Web using text and data mining techniques. The basic concepts of data mining: supervised learning, unsupervised learning, and semi-supervised learning. Text mining: natural language processing and information extraction. Web mining: web crawling, web usage mining, and semantic web. Opinion mining and sentiment analysis. Tools for web data mining.

H6752 Data Extraction Techniques

This course covers how to obtain data from the web, and prepare retrieved data in various formats for further analysis. Students will learn various data crawling techniques and tools both through lectures and hands-on exercises in labs. Principles and concepts of data collection and preparation; Data gathering techniques: Web crawling, APIs for Social media data collection; Database definition and manipulation: structured query language, transaction processing, and access control; Client-side technologies: Web content representation with mark-up languages and dynamic Web page generation with script languages. Server-side technologies: application programming languages.

H6753 User Metrics and Analytics

This course examines metrics and analytics of users' online and offline preferences and behaviours. It introduces principles, techniques, and new technologies for measuring and analysing users' experiences with information services, online platforms, and information technologies. Students will learn to capture, visualise, analyse, and evaluate a variety of user metrics, including cognitive, affective, behavioural, physiological, performance-related, and geospatial measures.

H6791 Social Sciences & Humanities Sources & Services

This course seeks to broaden students understanding of electronic and print information sources, focusing specifically on the areas of social science and the humanities. It seeks also to contextualize the use of these tools within the wider world of specific social and humanities domains of knowledge production.

At the end of this course students will; 1) Have an understanding of the social worlds of three social science or humanities disciplines. 2) Be aware of the major information tools for the social sciences and humanities. 3) Have an understanding of the role of government in the production of information in the social science and humanities.

Research Project

[Dissertation](#)

[Critical Inquiry](#)

H6799 Critical Inquiry

Role of critical thinking, evaluation and research in information and knowledge work; steps in carrying out a research project: problem identification, critique and review of research; selection and use of theoretical framework, methodological design, data collection and analysis; developing a research proposal; communicating research results; assessment and use of results of research studies; ethical concerns and issues associated with research.

Cross-listed Courses from Other Programmes

A6367 Digital Media Governance

This is a course on governing current, emerging and future technology: rules about rules, rules about the rulers and the ruled, and the shifting geopolitics of national, regional, and international digital realms. It aims to equip students with the knowledge of how international and national laws and policies regarding the Internet and digital media are made.

The course will cover the governance of critical Internet resources, privacy, content regulation issues including moderation, the challenges of digital challenges, and emergent technologies. It will discuss surveillance, artificial intelligence as well as the tension in 5G technology.

CI6202 Information Architecture & Design

This course examines information architecture as an approach to information systems design. Issues related to user interface design, users, usability and evaluation will be covered, and students will learn to apply these techniques to the Web.

CI6204 Software Project Management

This course is an introduction to software project management concepts and management. Core issues that will be looked at include Project communication and documentation; Risk Management; and Best Practices. Students will examine case studies in project management to better grasp the various areas of software project management.

CI6207 Human-Computer Interaction - Users, Tasks & Designs

In this course students will be given an introduction to general design and usability issues, with respect to key cognitive and physical human capabilities and their relations to the design of usable and useful systems. The course will also look at international design heuristics and guidelines from three perspectives: cultural, ethical and legal, and relate design and usability methods to the wider systems development process.

CI6221 Information Visualisation

This course will examine the study of concepts, models and examples for improved information visualisation. Students will look at representation and interpretation data, as well as different forms of document visualisation such as TileBars, galaxies, themescapes, and Kohonen maps.

CI6222 Mobile & Ubiquitous Applications

Data communications and the networking concept have risen in today's technology-centered society, hence this course addresses such mobile and ubiquitous applications. The course will look at technologies such as wireless networking, the development of mobile device applications, wireless network programming and messaging, and location-based wireless applications like GPS.

CI6228 Managing Information Systems

This course explores fundamental IS concepts from an organizational and managerial perspective. Students will examine the organizational impacts, business value, and technological components of IS, while learning how to manage Global IS and integrate emerging information technologies.

CI6229 Management of Information Systems Outsourcing

This course provides an overview of management of IS outsourcing, which includes planning and management of IS outsourcing, sourcing strategies, models, related legal issues, and managing global IS outsourcing. Students will also examine risk mitigation practices and best practices and case studies of IS outsourcing.

K6308 Business Intelligence

Business intelligence in the corporate environment: application, systems and processes. Characteristics of competitor, competitive and social intelligence. Business intelligence and growth opportunities: political, economic and social environments. Business intelligence strategies and systems. Business intelligence in various contexts: product, customer and supplier. Internet and Web-based intelligence. Ethical issues related to business intelligence.

K6311 Storytelling for Organisations

Living narrative, corporate storytelling, and the power of the tale in organisational life. Gargiulo's strategic use of stories in organisational communication and learning. Booker's basic plots of stories: overcoming the monster, rags to riches, the quest, voyage and return, comedy, tragedy, and rebirth. Denning's narrative patterns for leadership storytelling: motivating others to action, building trust, branding, transmitting values, collaborating, sharing knowledge, taming the grapevine, creating a vision.

K6312 Information Mining & Analysis

Principles and concepts of knowledge discovery and data mining. The knowledge discovery process. Data preparation. Techniques and methods for extracting information and knowledge from large amounts of data. Statistical methods. Machine learning techniques: decision tree induction, nearest neighbour categorisation, Bayesian learning, neural networks, association rules, and clustering. Text and Web mining for unstructured data. Data mining for KM applications.

K6316 Organisational Leadership

Introduction to leadership. Challenges for leadership in knowledge management. Leadership research. Charismatic and transformational leadership. Leadership traits and styles. Personal leadership profile. Power, politics and influence. Leadership communication. Leading teams. Followership. Managing organisational processes and innovation. Managing KM initiatives. Leadership and strategy. Leading change.