

# Information Resource Management (IRM)

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## Information Resource Management (IRM) Courses

### IRM 1002 [0.5 credit]

#### Reference and Information Services

Introduction to the theory and techniques needed to conduct reference interviews and interpret reference queries. Students learn to select and use general reference sources such as dictionaries, encyclopedias, directories, bibliographies, periodical indexes, almanacs, and handbooks in print, and electronic formats.

Includes: Experiential Learning Activity

Prerequisite(s): restricted to students in the B.I.T. degree program.

Lectures two hours a week, tutorial/laboratory two hours a week.

### IRM 1003 [0.5 credit]

#### Collections management

Introduction to the principals of collections management including techniques and procedures for selecting, ordering and receiving library materials, accounting, collection development and automated acquisitions.

Students also learn policies and procedures required for circulation, document delivery and interlibrary loans.

Includes: Experiential Learning Activity

Prerequisite(s): restricted to students in the B.I.T. degree program.

Lectures two hours a week, tutorial/laboratory two hours a week.

### IRM 1004 [0.5 credit]

#### Reader's Advisory Services

Students become familiar with fiction and non-fiction materials available to various categories of clients and learn how to market them. In addition, students further develop through various assignments their researching, writing, speaking, listening and communication skills.

Includes: Experiential Learning Activity

Prerequisite(s): Restricted to students in the B.I.T. degree program.

Lectures three hours a week.

### IRM 1005 [0.5 credit]

#### Web Interface Development

Combining graphics, text, audio and video to develop websites on an individual basis and in groups, using latest versions of HyperText Markup Language(HTML), Cascading Style Sheets (CSS), JavaScript and data interchange formats such as Extensible Markup Language(XML) and JavaScript Object Notation(JSON).

Includes: Experiential Learning Activity

Prerequisite(s): Restricted to students in the B.I.T. degree program.

Lectures three hours a week, tutorial/laboratory one hour a week.

### IRM 1006 [0.5 credit]

#### Subject Analysis and Indexing

Students learn the basic theory of subject analysis and indexing methods used to provide access to library materials and literature. Practical instruction makes use of thesauri, as well as standard subject heading lists, such as Sears and Library of Congress.

Includes: Experiential Learning Activity

Prerequisite(s): Restricted to students in the B.I.T. degree program.

Lectures two hours a week, tutorial/laboratory two hour a week.

### IRM 1007 [0.5 credit]

#### Cataloguing

The catalogue is the main finding aid to the collection of the library. Students learn the basic principles and concepts of international standards used to describe library materials. In-class exercises, lectures and practical experience help students apply these cataloguing standards.

Includes: Experiential Learning Activity

Precludes additional credit for IRM 1001 (no longer offered).

Prerequisite(s): restricted to students in the B.I.T. program.

Lectures two hours a week, tutorial/laboratory two hours a week.

### IRM 1008 [0.5 credit]

#### Introduction to Information Resource Management

Students develop understanding of the concepts of information retrieval, creation, evaluation, organization and client service. Knowledge of legal and ethical implications of information and current trends in the field is studied.

Through in-class lectures and hands-on activities, students gain an overview of the field.

Precludes additional credit for IRM 1000 (no longer offered).

Prerequisite(s): restricted to students in the B.I.T. degree program.

Lectures three hours a week.

### IRM 2002 [0.5 credit]

#### Legal and Business Information

Students develop skills in planning and executing information searches and evaluating print and electronic resources. Students learn to locate information on selected topics, compile subject-specific annotated bibliographies and instruct library clients in the use of specialized materials and databases.

Includes: Experiential Learning Activity

Prerequisite(s): IRM 1002.

Lectures two hours a week, tutorial/laboratory two hours a week.

**IRM 2003 [0.5 credit]****Classification**

How to interpret and apply Dewey Decimal and Library of Congress Classification systems. Also includes analysis of the subject content of materials, building notation, using tables, shelf-listing techniques and creating unique book numbers.

Includes: Experiential Learning Activity

Prerequisite(s): IRM 1006.

Lectures two hours a week, tutorial/laboratory one hour a week.

**IRM 2004 [0.5 credit]****Information Management and Digital Preservation**

Essentials of information management in an organization including the life cycle management of files in paper and the electronic environment. This course will also cover contemporary issues in information management and digital preservation.

Includes: Experiential Learning Activity

Prerequisite(s): IRM 1008.

Lectures two hours a week, tutorial/laboratory one hour a week.

**IRM 2005 [0.5 credit]****Advanced Cataloguing**

Libraries purchase and provide access to a wide variety of print and electronic resources. Building on work done in IRM 1007, students learn to interpret international cataloguing standards to describe more complex materials. In-class exercises, lectures and practical experience help students apply these cataloguing standards.

Includes: Experiential Learning Activity

Precludes additional credit for IRM 2001 (no longer offered).

Prerequisite(s): IRM 1007.

Lectures two hours a week, tutorial/laboratory two hours a week.

**IRM 2006 [0.5 credit]****Data Visualization**

Web-based data visualization techniques and systems. Good design practices for visualization, tools for visualization of data from a variety of fields, and programming of interactive web-based visualizations focusing on JavaScript, CSS, and related libraries.

Includes: Experiential Learning Activity

Also listed as ITEC 2100.

Prerequisite(s): IRM 1005 and BIT 1400.

Lectures/labs five hours a week.

**IRM 3001 [0.5 credit]****Scientific and Medical Information**

Students enhance their knowledge of print and electronic reference sources in science and technology. Students learn to compile specialized subject-specific bibliographies and assignments provide training in the use of science and technology reference sources.

Includes: Experiential Learning Activity

Prerequisite(s): IRM 2002.

Lectures two hours a week, tutorial/laboratory two hours a week.

**IRM 3003 [0.5 credit]****Legal Issues in Information Resource Management**

In-depth analysis and assessment of copyright and other forms of intellectual property. Legal issues related to information technology. Topics may include privacy, surveillance and monitoring, access to information, freedom of expression, Charter and human rights issues, and security.

Includes: Experiential Learning Activity

Prerequisite(s): Restricted to students in the B.I.T. degree program.

Lectures three hours a week.

**IRM 3004 [0.5 credit]****Project management**

Identification, selection, initiation, and organization of projects. Risk assessment, budget issues, communication, project scheduling, performance monitoring and control. Emphasis on practical techniques related to the field of information management using case studies.

Includes: Experiential Learning Activity

Prerequisite(s): third year standing in the Information resource management program.

Lectures two hours a week, tutorial/laboratory two hours a week.

**IRM 3006 [0.5 credit]****Data Analysis and Research Methodology**

Introduction to the logic and design of research. Qualitative and quantitative research methodology with emphasis on the application and interpretation of statistical techniques for data analysis. May include, but are not limited to, bivariate and multivariate analysis, distribution analysis, visual data analysis, market basket analysis.

Includes: Experiential Learning Activity

Precludes additional credit for IRM 3002 (no longer offered).

Prerequisite(s): BIT 2009 or equivalent.

Lectures three hours a week.

**IRM 3007 [0.5 credit]****Practicum for IRM**

Students will design and complete a project related to information management under the supervision of a faculty member or librarian. This course provides the opportunity to apply knowledge gained in previous courses.

Includes: Experiential Learning Activity

Prerequisite(s): third-year standing in the Information resource management program.

Tutorial/laboratory eight hours a week.

**IRM 3008 [0.5 credit]****Metadata for IRM**

Students develop an understanding of key metadata schema and apply standards to describe range of digital resources. The metadata schemes include focus on Dublin Core (DC) and MODS with select coverage of specialist schema. Through in-class lectures and hands-on activities, students apply metadata schemes.

Includes: Experiential Learning Activity

Precludes additional credit for IRM 3000 (no longer offered).

Prerequisite(s): IRM 2005.

Lectures two hours a week, tutorial/laboratory two hours a week.

**IRM 4000 [0.5 credit]****Library Software**

Using skills and knowledge of automated systems already developed in introductory courses, students learn the theory and receive the hands-on practice needed to use library databases. A component on choosing and comparing library software is included.

Includes: Experiential Learning Activity

Prerequisite(s): Restricted to students in the B.I.T. degree program.

Lectures two hours a week, tutorial/laboratory one hour a week.

**IRM 4001 [0.5 credit]****Archives and Special Collections**

Principles and methods used by archivists and record managers in organizing their collections for better access and retrieval. Students also learn aspects of physical bibliography, the book trade, preservation and conservation of books and how to exhibit such material.

Includes: Experiential Learning Activity

Prerequisite(s): Restricted to students in the B.I.T. degree program.

Lectures three hours a week.

**IRM 4002 [0.5 credit]****Network Technology**

Foundation knowledge for computer networks and communications. Topics include basic network design, layered communications models, IP addressing and subnets, and industry standards for networking media and protocols, with an emphasis on TCP/IP protocol suite and Ethernet environments.

Includes: Experiential Learning Activity

Lectures two hours a week, tutorial/laboratory one hour a week.

**IRM 4004 [0.5 credit]****Applied Machine Learning and Big Data Analytics**

Introduction to Machine Learning and Big Data Analytics.

Topics include: Association Rule Mining, Classification, Clustering, Linear and Logistic Regression, Distributed File System, Batch and Stream Data Processing, and other related. Applications on other domains such as multimedia, networks, finance, and/or business.

Includes: Experiential Learning Activity

Prerequisite(s): IRM 3006.

Lectures three hours a week.

**IRM 4005 [0.5 credit]****Introduction to Deep Learning**

Introduction to classification and regression. Optimization, vectorization, gradient descent, cost, loss and activation functions. Introduction and basics to AI, Artificial Neural Networks, forward and backward propagation, Multi Layer Perceptron, and other types of Deep Neural Network models, their applications in multimedia, networks, finance, etc.

Includes: Experiential Learning Activity

Also listed as OSS 4005.

Prerequisite(s): BIT 2009 and BIT 2400.

Lectures three hours a week.

**IRM 4900 [1.0 credit]****IRM Capstone Project**

Student-initiated project developed in association with a project supervisor and external information resource management advisor. Project is supported by a written report, seminar discussions and final presentation. All proposals must be approved by the IRM Program Project Committee.

Includes: Experiential Learning Activity

Prerequisite(s): IRM 3004, IRM 3007 or LIB 2030 and LIB 2047 and fourth year standing in the IRM program.

Tutorial hours arranged.