DEARBORN
MARDIGIAN LIBRARY

Research Education Committee Assessment Report 2018-2019

Prepared By Nadine Anderson, June 14, 2019

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I. Introduction/Background

Mardigian Library Research Education Committee: Nadine Anderson (Chair), Carla Brooks, Joan Martin, Elaine Meyer, Raya Samet, Joel Seewald, Holly Sorscher

For the 2018-2019 academic year, the Research Education Committee focused on improving assessment of our research education work and increasing our collaboration with assessment stakeholders in the library, UM-Dearborn campus, and University of Michigan campuses. We met and collaborated with Jessica Blumerick, the UM-Dearborn Academic Success (and Assessment) Coordinator, and the Chair of the Research Education Committee, Nadine Anderson, joined the Mardigian Library Assessment Committee to improve coordination and collaboration between the two committees. Nadine Anderson and the Chair of the library's Assessment Committee, Barbara Kriigel, also met and began collaborating with library assessment coordinators at UM's Ann Arbor campus, resulting in the development of a University of Michigan Library Assessment Community consisting of libraries across Dearborn, Flint, and Ann Arbor campuses.

Increasing the Research Education Committee's collaboration with assessment stakeholders resulted in:

- A new Research Education tracking form, which the committee revised substantially from our previous forms to gather data that better reflects the scope of our research education work in courses and programs
    - A corresponding tally sheet, which the committee developed to help subject librarians keep track of research education work and data across multiple courses and programs throughout the semester
- Subject librarians gained access to the assessment reports of our assigned academic program areas, to help us better coordinate our research education work and assessment with the assessment, goals, and identified gaps in our program areas
- A shared *Survey Question Bank* created and shared by the members of the University of Michigan Library Assessment Community to help us build and provide feedback on faculty and student surveys

II. Statistical Review

The following data was compiled from the 2018-2019 Course/Program Research Education Tracking Form developed by the Research Education Committee this year. Since we substantially revised and overhauled the form from the tracking form used in previous years, the data from this form will provide baseline measurements for future year-by-year comparisons, but cannot be used this year for comparisons to data collected in previous years.

Table 1: Tally of Course/Program Research Education by Academic Program and Semester

Program		Summer 2018		Fall 2018		Winter 2019	
		Courses	Students	Courses	Students	Courses	Students
College of Business (COB)	Accounting & Finance	1	12	0	0	0	0
	Management Studies	3	95	9	300	13	391
	COB Total	**4**	**107**	**9**	**300**	**13**	**391**
College of Arts, Sciences, & Letters (CASL)	African & African American Studies	0	0	2	14	0	0
	Arab American Studies	0	0	0	0	0	0
	Behavioral Sciences	9	156	15	233	21	430
	Criminology & Criminal Justice	4	47	7	66	8	69
	Integrative Studies	0	0	0	0	1	6
	Language, Culture, & Communication	0	0	4	80	7	155
	Literature, Philosophy, & Arts	0	0	3	43	1	12
	Mathematics & Statistics	0	0	0	0	1	20
	Natural Sciences	0	0	0	0	0	0
	Social Sciences	0	0	3	83	1	40
	Women's & Gender Studies	5	53	4	49	5	42
	CASL Total	**18**	**256**	**38**	**568**	**41**	**774**
College of Education, Health, & Human Services (CEHHS)	Education	0	0	7	104	7	153
	Health & Human Services	0	0	3	81	6	158
	CEHHS Total	**0**	**0**	**10**	**185**	**13**	**211**

Program		Summer I 2018		Fall 2018		Winter 2019	
		Courses	**Students**	**Courses**	**Students**	**Courses**	**Students**
College of Engineering & Computer Sciences (CECS)	Computer & Information Science	0	0	3	47	2	60
	Industrial & Manufacturing Systems Engineering	0	0	6	115	1	20
	Electrical & Computer Engineering	0	0	2	35	1	20
	Mechanical Engineering	0	0	4	57	1	20
	CECS Total	**0**	**0**	**15**	**254**	**5**	**120**
Campus Programs	Career Services	0	0	0	0	2	42
	English Language Proficiency	0	0	1	15	0	0
	Graduate Studies	0	0	2	45	1	28
	Technical Writing for Engineers	0	0	1	20	2	45
	Campus Programs Total	**0**	**0**	**4**	**80**	**5**	**115**
2018-2019 Academic Year Totals		**22**	**365**	**76**	**1387**	**77**	**1611**

Table 2: Distribution of 2018-2019 Research Education Work Among Undergraduate, Graduate, and Capstone Courses/Programs

Note that some courses were Undergraduate/Graduate cross-listed courses and that Capstone courses are also Undergraduate courses.

Course/Program Level	Number of Courses/Programs
Undergraduate	112
Capstone	16
Graduate	41

Table 3: Distribution of 2018-2019 Research Education Work Among Face-to-Face/In-Person, Online, and Hybrid Courses/Programs

Course/Program Delivery Method	Number of Courses/Programs
Face-to-Face/In-Person	110
Online	20
Hybrid	3

Table 4: Research Skills Taught

Research Skills	Number of Courses/Programs
Navigate the library website/course Subject Guide	92
Differentiate between types of sources	49
Basic database research strategies and techniques	115
Find sources	115
Evaluate sources	84
Avoid plagiarism	83
Cite sources	108
Advanced database research strategies and techniques	44
Develop research questions/topics	45
Analyze sources to find key information	61
Use sources to build evidence/arguments	65
Create literature reviews	28
Build research proposals	10

Table 5: Course/Program Activities & Resources

Activities & Resources	Number of Courses/Programs
Assess student work	3
Conduct consultations with students	89
Develop and/or use customized handout(s)	14
Develop and/or use online subject guide*	74
Develop presentation slides	44
Develop online learning object(s)	2
Embedded in student research groups	17
Lead orientation(s)	1
Participate in course Canvas site in Librarian role	47
Partner on design, preparation, and/or outcome assessment of research assignment(s)	26
Teach research skill session(s)/workshop(s)	83

***"subject guide" refers to online research LibGuides customized to meet the needs of courses and programs**

Table 6: Research Education Work

Research Education Work	Number
Total research skill sessions	108
Average number of student consultations per course/program *	3.62
Average online subject guide usage * per course/program **	676.29
Average number of Canvas announcements per course/program ***	5.68

*** Data available for Winter 2019 semester only**

**** For courses/programs using a subject guide, total number of page views during the semester. "Subject guide" refers to online research LibGuides customized to meet the needs of courses and programs**

***** For courses/programs in which librarian was embedded in Canvas site**

Table 7: Digital Education Work

Digital Education Work	Number of Courses/Programs
Develop online subject guide*	38
Embedded in Canvas site	48
Create online assignments	15
Create online learning object(s) (i.e. tutorials, modules, videos)	1
Add student work to Deep Blue or Deep Blue Data	1

***"subject guide" refers to online research LibGuides customized to meet the needs of courses and programs**

Table 8: Instructional Design Work

Instructional Design Work	Number of Courses/Programs
Assignment design/redesign	24
Course design/redesign	14
Rubric design/redesign	10
Identify course resources	26
Identify OERs	2
Online learning object design	1

III. Assessments Used

For 2018-2019, we used a tracking form to collect research education work data. However, we did not use student and faculty surveys or other cross-campus assessments this year since these are currently in development with the University of Michigan Library Assessment community. Librarians did contribute to course assessments, though, collaborating with professors to assess students by:

- Attending and providing feedback on student presentations
- Evaluating student papers and presentations using rubrics
- Reviewing citation accuracy and source quality in research assignments

IV. Future Directions

For 2019-2020, the Research Education Committee will continue to review and build our research education assessment. Our priorities include:

- Working with the University of Michigan Assessment Community to develop faculty surveys, student surveys, and other assessments to measure the impact of our research education work

- Working with the Library Assessment Committee to combine library and research education data to provide a more complete picture of how library research education and library resources/materials interact to impact student outcomes
- Subject librarians work with faculty in our assigned academic program areas to better integrate our research education assessment data with their assessment data and goals
- Review and revise the current *Research Education Plan* (see Appendix A, pg. 9) to better reflect recent goals, initiatives, and priorities
- Review *Mardigian Library Research Education Learning Outcomes and Suggested Activities and Assessments* (see Appendix A., Supplement 1, pg. 17)

Appendix A. Research Education Program Plan

I. RESEARCH EDUCATION MISSION STATEMENT & MODELS

The Research Education Program will collaborate with faculty to teach students the research, information literacy, and critical thinking skills appropriate to their academic standing and will contribute to their success beyond the classroom.

The research education program will enable students to:

- Use the library more confidently
- Demonstrate increased self-confidence in their research skills
- Perform search strategies that can save them time
- Become independent researcher

Please see Section II and Supplement 1, *Mardigian Library Research Education Learning Outcomes and Suggested Activities and Assessments,* for detailed learning outcomes, suggested activities and assessments

Subject-Specialist Model

Each academic unit at UM-Dearborn is assigned a subject librarian, who partners with faculty in that area on research skill education. A full list of the subject librarians assigned to each school/program is available at: http://library.umd.umich.edu/services/librarians.php

Embedded Librarianship Model

Subject librarians are moving towards an embedded librarianship model, which is the fundamental strengthening of our relationships and mutual commitment to meeting the goals and outcomes of the academic programs in which we are embedded:

- Strong working relationships and mutual understanding with faculty and leadership in our program areas
- Understand and share the goals of our program areas
- Make highly valued, professional contributions to achieving those goals
- Become an integral and indispensable member of our program areas

The teaching role of Embedded Subject Librarians is dominant, with varying levels of embeddedness but **always in collaboration with faculty and/or other stakeholders**:

- Customized Research Education for Courses
    - Develop and teach one-shot research education sessions or create digital education content customized to course needs
    - Create online research guides customized to course needs
- Customized Embedded Research Education for Courses
    - Embedded in Canvas course sites to provide point-of-need research guidance and consulting

    - Embedded in courses to develop and teach multiple research education sessions customized to course needs
    - Develop online learning objects customized to course needs
- Customized Embedded Research Education for Academic Programs
    - Formal research consultant to academic programs, i.e. Honors, Master's, or PhD programs
- Instructional Design
    - Design or redesign course assignments to incorporate the learning and application of Information Literacy learning outcomes and objectives
    - Design or redesign the course syllabus to incorporate the learning and application of Information Literacy learning outcomes and objectives
- Strategic Planning (in collaboration with faculty, stakeholders, and program leadership)
    - Strategic plan for research education customized to needs of program areas
- Program Curriculum (in collaboration with faculty, stakeholders, and program leadership)
    - Curriculum mapping of Information Literacy skills, learning outcomes, and learning objectives for program areas
    - Develop or redesign curriculum for program areas(s)

Please see Supplement 2, *Embedded Librarianship at Mardigian Library*, for more information about the Embedded Librarianship Model.

II. LEARNING OUTCOMES FOR RESEARCH EDUCATION

To carry out the Mission, the Research Education Committee has identified learning outcomes at beginner, intermediate, and advanced levels. These outcomes will be achieved by the promotion and implementation of Research Education activities by teaching librarians.

Subject librarians may develop additional discipline-specific and program-specific learning outcomes in collaboration with faculty.

Please see Supplement 1, *Mardigian Library Research Education Learning Outcomes and Suggested Activities and Assessments,* for suggested activities and assessments for each of the following learning outcomes.

At an introductory level students will be able to:

- Use the library web site
- Access library resources on and off campus
- Generate Search words from research questions or topics
- Conduct basic searches in library research tools
- Recognize that there is a difference between library resources and the resources available on the free Internet
- Recognize differences between formats of information

At an intermediate level students will be able to additionally:

- Identify and apply the steps of the research cycle
- Determine what type and how much information is needed
- Identify and describe different sources of reliable information
- Differentiate between scholarly and non-scholarly sources
- Describe the Peer-Review process
- Identify key concepts of research questions and use those to generate search words in order to create a search statement
- Conduct and focus Summon searches using a variety of filtering strategies like peer-review, disciplines, or subjects
- Students will be able to revise their search statement according to the words and phrases found in their searches with their assignments
- Describe why and how to identify subject specific databases
- Locate materials appropriate for university level research
- Use evaluative criteria to select materials appropriate for university level research
    - CRAAP criteria (Currency, Relevance, Authority, Accuracy, Purpose) to evaluate and select sources
    - RADAR Framework (Rationale, Authority, Date, Accuracy, Relevance)
- Cite sources using appropriate citation style

At an advanced level students will be able to additionally:

- Describe the characteristics of focused research questions
- Develop broad topics into focused research questions
- Refine original search statement based on information found in list of database search results
- Identify the sections of research articles and the information found in each section
- Analyze research articles using questions to increase comprehension
- Use sources in research assignments to answer research questions and build arguments

III. MODES OF INSTRUCTION

The Research Education Program will endeavor to achieve the learning outcomes by conducting a variety of efforts:

- Synchronous or asynchronous embedded activities in courses collaboratively arranged with the faculty
- Synchronous classroom lectures collaboratively arranged with the faculty (One-shot)
- Asynchronous classroom support in the form of Subject Guides or online tutorials

Digital Education

The Program will endeavor to achieve our learning outcomes using digital education through a two-pronged approach:

• Collaborating with the teaching faculty of online courses to develop online research guides that are tailored to course research assignment requirements and the specific research processes of the discipline

- Being embedded by teaching faculty in their course Canvas sites in the Librarian role in order to:
    - Introduce themselves and the course research guide as resources and supports for students
    - Schedule point-of-need announcements drawing student attention to their course research guide and course librarian

This two-pronged approach has demonstrated success. Students use their course research guides more and are more likely to contact their subject librarians when they need help. Faculty also report a positive impact on the quality of student work in their online courses. This two-pronged approach has proven to be a high-impact strategy valued by faculty. We plan to further explore applying this approach to classroom courses to see if it will have the same impact.

Capstone Courses

Subject librarians collaborate with faculty who are teaching Capstone courses to determine effective ways to support student research and research-based course products, including (but not limited to):

- white papers
- research project papers
- research project poster presentations
- research project presentations

Subject librarians will work with their programs to identify Capstone courses and then contact the faculty who are teaching those courses, where possible.

IV. INSTRUCTIONAL DESIGN

Librarians at the Mardigian Library who have achieved Instructional Design certification will combine their librarian and academic subject specialist competencies and skill-sets with the instructional designer's ability to develop, construct, implement, and assess pedagogically sound tools and experiences. A three-pronged approach will be used to apply these skills:

- Instructional Design Projects Within Program Areas
- Mardigian Library Instructional Design Projects

Please see Supplement 3, *Instructional Design at the Mardigian Library*, for more details.

V. ASSESSMENT & EVALUATION

In order to determine if the Program's learning outcomes are achieved the Program will conduct systematic assessment of activities in the courses from the four colleges that participate in the Program on an annual basis.

Ongoing Assessment Activities

Program Participation

The Research Education Program has consistently tracked the research education work librarians have conducted for the various colleges of the university. This is the 2018-2019 Research Education Tracking Form, which the committee revised substantially from our previous tracking form to gather data that better reflects the scope of our research education work in courses and programs. The statistics since 2012 can be found on the Research Education LibGuide (which houses the statistical information for the Program as well as other resources for the Program).

Achievement of Outcomes

In 2019, we began working with the University of Michigan Assessment Community to develop faculty surveys, student surveys, and other assessments to measure the impact of our research education work. This work will continue in the 2019-2020 academic year.

Please see Supplement 1, *Mardigian Library Research Education Learning Outcomes and Suggested Activities and Assessments,* for alignment of outcomes with activities and assessments.

VI. ALIGNMENT TO THE ACRL FRAMEWORK

The Association of College & Research Libraries (ACRL) *Framework for Information Literacy for Higher Education* (2016) is the document that underpins the effort of professional research librarians to create a new cohesive curriculum for information literacy, and to collaborate more extensively with faculty. The Framework is organized into six frames, each consisting of a concept central to information literacy, a set of knowledge practices, and a set of dispositions. The six concepts that anchor the frames are:

1. Authority Is Constructed and Contextual
2. Information Creation as a Process
3. Information Has Value
4. Research as Inquiry
5. Scholarship as Conversation
6. Searching as Strategic Exploration

The Research Education Mission of the Mardigian Library is aligned to this framework, and reflects the idea that the teaching and learning information literacy skills is a dynamic process, and that instruction "that foster[s] enhanced engagement with the core ideas about information and scholarship within… [specific] disciplines" is most effective.

For more details, see the ACRL Framework:

ACRL Board. (2016). Framework for information literacy for higher education. Retrieved from http://www.ala.org/acrl/standards/ilframework

SUPPLEMENT 1: LEARNING OUTCOMES/ACTIVITIES

Mardigian Library Research Education Learning Outcomes and Suggested Activities and Assessments

Introductory Outcomes	**Suggested Activities**	**Assessments/Evaluations**
Use the library web site	Web site demonstration Video tour of the web site Web site scavenger hunt or bingo	Open ended surveys Multiple choice surveys Completion of scavenger hunt
Access library resources on and off campus	Handout Create account Utilize resources off campus	Verified usage of student account
Generate Search words from research questions or topics	Topic discussion about keywords, synonyms, and operators. Create a bubble map of words or a table of words. How are words connected?	Successful completion of bubble map, table of words, or some sort of graphic organizer
Conduct basic searches in library research tools	Hands-on activity	Short reflection detailing whether relevant results were located. Can the results be used? What is criteria for success? Highlight terms that worked from your graphic organizer
Recognize that there is a difference between library resources and the resources available on the free Internet	Discuss Search in Google and compare and contrast between what was located in the library tools	Brief reflection
Recognize differences between formats of information	Discuss Recognize in hands-on activity	Matching exercise Brief reflection defining or identifying various format types
Intermediate Outcomes	**Suggested Activities**	**Assessments/Evaluations**
Identify and apply the steps of the research cycle	Multiple choice or matching exercises	Brief reflection

Determine what type and how much information is needed	Review your assignment sheet	Short answer exercise
Identify and describe different sources of reliable information	Matching exercise	Closed quizzes/fill in the blanks with selections from a word bank
Differentiate between scholarly and non-scholarly sources	Review sources in small groups. Include CRAAP as a resource	Students report findings to the larger group
Describe the Peer-Review process	Put the steps in order activity	Brief reflection or bubble map
Identify key concepts of research questions and use those to generate search words in order to create a search statement	From three research questions identify key terms and create the search string	Apply this process with a question students have
Conduct and focus Summon searches using a variety of filtering strategies like peer-review, disciplines, or subjects	Hands-on activity searching their topic or an assigned topic using filters Compare and contrast exercise where students analyze differences between the searches	Ask students to share results Collect results with a form
Students will be able to revise their search statement according to the words and phrases found in their searches with their assignments		
Describe why and how to identify subject specific databases	Identify subjects of research question, go to databases section and identify subject area, then identify a database for that topic, and then report back why chosen	Matching exercise
Locate materials appropriate for university level research	In a group use one CRAAP criterion to evaluate a paper and then report back	Students find and select a source for their own research and explain why they selected it for university level research
Use evaluative criteria to select materials appropriate for university level research		
Cite sources using appropriate citation style	Jumble or scramble activity to put together a correct citation	Find citation information and create a citation in a specified style

Advanced Outcomes	Suggested Activities	Assessments/Evaluations
Describe the characteristics of focused research questions	Review examples of focused questions in a group	Report back on the characteristics of focused questions
Develop broad topics into focused research questions	Develop a broad topic into focused research questions in a group/worksheet/hands-on activity	Peer review of focused research question
Refine original search statement based on information found in list of database search results	Find a relevant article and identify the subjects/keywords found in the article	Compare subjects/keywords found in the article to the words/phrases/terms used in the search and indicate how to then revise search statement
Identify the sections of research articles and the information found in each section	Matching exercise	Worksheet where students analyze the structure of an assigned research article
Analyze research articles using questions to increase comprehension	In a group each student summarizes part of an article and report back to the group	Worksheet where students analyze the information contained in an assigned research article
Use sources in research assignments to answer research questions and build arguments	Hands-on time	Class assignments

SUPPLEMENT 2: EMBEDDED LIBRARIANSHIP

Embedded Librarianship at the Mardigian Library

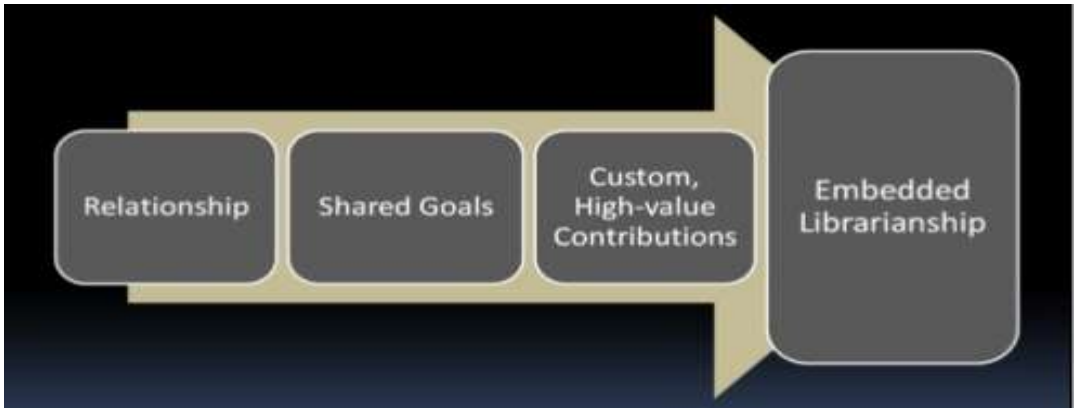
By Elaine Logan and Nadine Anderson (most content adapted from *Embedded Librarian: Innovative Strategies for Taking Knowledge Where It's Needed*, by David Shumaker, and *The Atlas of New Librarianship*, by R. David Lankes)

Why Embedded Librarianship?

"When people have an information need they'll always ask people they know before they ask a librarian. The trick is making sure that librarians are some of the people they know." – Jessamyn West (pg. 83, *Atlas of New Librarianship*)

We are in the midst of the greatest information revolution since Gutenberg, a revolution which is disrupting traditional modes of library service. To prosper, academic libraries need to rethink our relationship with our campus communities. Embedded librarianship is the outcome of rethinking and repositioning our roles so that we remain relevant to the mission and goals of our university and campus programs so that we are valued by our campus communities.

What is Embedded Librarianship?



Embedded librarianship is the fundamental strengthening of our relationships and mutual commitment to meeting the goals and outcomes of the academic programs in which we are embedded:

- Strong working relationships and mutual understanding with faculty and leadership in our program areas
- Understand and share the goals of our program areas
- Make highly valued, professional contributions to achieving those goals
- Become an integral and indispensable member of our program areas

Moving from Traditional Librarianship to Embedded Librarianship

Library moves from areas of librarianship owned by one person to shared collaboration, vision, responsibility, and accountability. This changes your working relationships with your peers in the library and with your customers.

Embedded librarians leave the library to engage with and develop strong working relationships with our program areas.

Embedded librarians transcend service and become partners with our program areas and mutually responsible for achieving their goals and outcomes.

Embedded librarians build on standards to use our strong working relationships to understand the specific needs and goals of our program areas and address them in a customized way.

Embedded librarians go a step further than responsiveness – we anticipate and don't wait to be asked. Embedded librarians use our close working relationships to identify needs and find solutions to the needs and goals of our programs.

Embedded librarians go beyond promoting library resources – we focus on identifying what we can do that will have the biggest impact on the goals and mission statements of our programs. Embedded librarians demonstrate our value through our impact on our programs and how it fits in to their goals and mission statements

Levels of Embedded Librarianship: Research Education

In higher education, the teaching role of embedded librarians is dominant, with varying levels of embeddedness but **always in collaboration with faculty and/or other stakeholders**:

- Customized Research Education for Courses

    - Develop and teach one-shot research education sessions or create digital education content customized to course needs
    - Create online research guides customized to course needs
- Customized Embedded Research Education for Courses
    - Embedded in Canvas course sites to provide point-of-need research guidance and research consulting
    - Embedded in courses to develop and teach multiple research education sessions customized to course needs
    - Develop online learning objects customized to course needs
- Customized Embedded Research Education for Academic Programs
    - Formal research consultant to specific academic programs, i.e. Honors, Master's, or PhD programs
- Instructional Design
    - Design or redesign course assignments to incorporate the learning and application of Information Literacy learning outcomes and objectives
    - Design or redesign the course syllabus to incorporate the learning and application of Information Literacy learning outcomes and objectives
- Strategic Planning (in collaboration with faculty, stakeholders, and program leadership)
    - Strategic plan for research education customized to needs of program areas
- Program Curriculum (in collaboration with faculty, stakeholders, and program leadership)
    - Curriculum mapping of Information Literacy skills, learning outcomes, and learning objectives for program areas
    - Develop or redesign curriculum for program area(s)

Embedded Librarianship: Beyond Research Education

- Connect programs with library services and facilities
- Collaboration on research projects
- Embedded in research teams
- Manage program research archival collections and/or data in Deep Blue and/or Deep Blue Data
- Data management planning
- Serving on committees and groups in program areas
- Grant writing and fund raising
- Embedded in program community engagement initiatives

How does Embedded Librarianship contribute to the UM-Dearborn Mission?

- Supports excellence in teaching, learning, research and scholarship.
- Supports opportunities for independent and collaborative research
- Supports mission outcomes:
    - Applying innovative pedagogies to advanced teaching and learning
    - Building the knowledge and skills essential for personal transformation, professional success, and advancing the common good
    - Fostering a dynamic environment where innovation, openness, and creativity flourish
    - Preparing our graduates to become engaged citizens and creative leaders, ready to offer inventive solutions to regional, national and global challenges

How does Embedded Librarianship contribute to the Mardigian Library Mission?

- Collaborating to provide research, writing, and academic support services;
- Partnering with instructional faculty in teaching, research, and scholarly publication

Evaluating Embedded Librarianship

1. Embedded librarians need to demonstrate value and impact not just to the library, but also to the programs in which we're embedded, or else our working relationships and program buy-in will suffer.

2. When librarians are embedded in programs, we are using the time, resources, and space (sometimes) of those programs. If embedded librarians can't show our value and impact, those could be taken away.

SUPPLEMENT 3: INSTRUCTIONAL DESIGN

Instructional Design at the Mardigian Library

Librarians at the Mardigian Library who have achieved Instructional Design certification will combine their librarian and academic subject specialist competencies and skill-sets with the instructional designer's ability to develop, construct, implement and assess pedagogically sound tools and experiences. A three-pronged approach will be used to apply these skills:

Instructional Design Projects within Program Areas

- Engage with the development of courses and programs within program areas with a focus on online and blended courses
- Actively pursues opportunities to integrate research skills instruction when possible
- Collaborate with faculty to identify program-specific higher-level research competencies and skills as well as on projects to support the development of these skills
- Projects will address and incorporate the specific competencies, research processes, research needs, and resources of each program area

Example Ongoing Projects:

- History and Political Science YouTube video project
- Natural Sciences video project and learning objects project
- Behavioral Sciences scaffolded assignments project
- Embedded librarians and research guides (customized to teach discipline-specific and course-specific research skills) in Canvas
- Course redesign, assignment redesign, rubric design, and online course support projects which include the development of course and program specific learning objects

Mardigian Library Instructional Design Projects

- Incorporate the best practices in classroom and digital education and instructional design into the library's Research Education Plan so that all subject librarians can benefit and use the expertise and lessons learned in the UW-Stout Instructional Design Certificate program
- Develop and maintain online instruction materials and tutorials designed for today's learners, promoting general research competencies
- Collaborate with other subject specialist librarians in the development and delivery of online learning specific to library research skills
- Collaborate with library Systems Team and other librarians and staff to improve online user interfaces and learning experiences
- Participate in assessment of the Library's instructional services, including effectiveness and usability of online-learning objects and other library instructional materials in enhancing student-learning outcomes

Example Ongoing Projects:

- Open Educational Resources (OER) project
- **First Year Research Skills Canvas Modules** project that developed cross-campus Canvas modules, in coordination with Faculty Senate and CASL First Year Experience committees, to support to support student learning of foundational research education learning objectives in 100-level courses at the University of Michigan-Dearborn (UM-Dearborn)
    - Based on faculty feedback, transferring content from these modules to Canvas-independent "bite-sized" online interactive tutorials
- Canvas Modules developed and added to the Canvas Commons:
    - Develop Strong Research Questions

- Writing Literature Reviews
- Find Sources – Basics
- Evaluate Your Sources
- Access Library Information and Services
- Find Sources in the Library Catalog