Sustainable Teaching Strategies from Chemistry Liaison

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Chemistry department faculty list librarian information literacy instruction for upper undergraduate and graduate courses as a primary need and expectation. Professors find that subject specialized information literacy instruction yields better outcomes for their students' assignments as compared to general information literacy instruction.

Teaching 2017-2018 (15 classes)

Class	Name	Audience	Required	Attendance (# Sessions)
CHEM 120	First Year Seminar in Chemistry	Freshmen	BS, NS	18
CHEM 125	General Chemistry Laboratory I	Undergrad	BS, NS	30
CHEM 303	Introductory Bioinorganic Chemistry	Undergrad	BS, NS	14, 8
CHEM 353	Introduction to Biochem Res Tech & Sci Writing	Sophomore/Junior	BS, ULWR	20
CHEM 420	Intermediate Organic Chemistry	Junior/Senior	BS	102
CHEM 455	Special Topics in Biochemistry	Undergrad & Grad	BS	30, 17
CHEM 482	Synthesis and Characterization	Senior	BS, ULWR	31 (2)
CHEM 616	Advanced Inorganic Chemistry	Grad		11 (3)
Writing 400	Advanced Rhetoric and Research	Sophomore/Junior	ULWR	6
Writing 410	Quantitative Analysis and Writing in the Disciplines	Undergrad & Grad	ULWR, QR/2	10

CHEM Librarian Instruction Request
Course Name
Date you would like me to teach (+ alternative)
Time you would like me to teach
Location
Student population
How many students
For which assignment my instruction would be most helpful
What are the most common mistakes students make on this assignment
What do students struggle with most?
What would you change this year?
Send syllabus, details of assignment, add Librarian to Canvas

Student Pre-assessment Survey for Scientific Writing Workshop
Your name
Which session will you attend
What is the biggest challenge for you in writing the assigned course paper
What is your preferred literature search database
What is your preferred citation management software
Have you seen the Chemistry library guide

Library Guides	
Chemistry	http://guides.lib.umich.edu/chemistry
Reaxys	http://guides.lib.umich.edu/c.php?g=282993&p=1885556
ChemDraw	http://guides.lib.umich.edu/chembiooffice
Wikipedia	http://guides.lib.umich.edu/c.php?g=283187&p=1886529
SciFinder	http://guides.lib.umich.edu/scifinder
Citation manag soft	http://guides.lib.umich.edu/citationmanagementoptions
Citation help	http://guides.lib.umich.edu/citationhelp

Topics	Details	Classes
Databases: PubMed, SciFinder, Reaxys	• What is the scope of each database and how important is to use a combination • Where to find tutorials • How to construct a search (special terms, BOOLEAN operators) • Search by title, author, topic, structure, property • How to find related papers • How to apply various filters • How to retrieve the article • How to use citation management software • How to save/export searches • How to keep updated with the topic • What does citation number tells us about • What can we know about the journal (can we trust it?) • What are PMID and DOI • Where to find the information about the PI • Various types of the research publications • Structure of the research paper • Interlibrary loan	CHEM 120 CHEM 303 CHEM 353 CHEM 420 CHEM 455 Writing 400 Writing 410
Scientific writing	• Types of research articles • Structure of the research article • Literature search databases • Citation management software • Understanding the topic • Preparing an outline • Writing each specific section of the article • Style of the research article: font, formatting, wording • Active vs passive voice • Sentence structure • Preparing bibliography • Data visualization software • Plagiarism	CHEM 303 CHEM 482 Writing 400 Writing 410
ChemDraw	• Most common mistakes in structure presentation • ChemDraw for publications • Alternative tools	CHEM 482
Crystallography	• Crystallographic symmetry • Crystallographic data • Crystal structure solution	CHEM 616
Wikipedia	• Wikipedia community • Five pillars of Wikipedia • Selecting a topic • Editing techniques	CHEM 455
Navigating the Library	• Introduction and contact information • Library structure and resources available • Recommended resources for Chemistry • Research Library guides • Tour of the library	CHEM 120 CHEM 125 CHEM 303 CHEM 353 Writing 400 Writing 410

Michigan Academic Library Association Annual Conference, May 17-18, Lansing, MI