

Chemistry/Information Literacy/Writing Assignment: Chromatography

“How chromatography is used in my field of study”

Due Date:

Purpose

Skills: The purpose of this assignment is to help you practice the following skills to become information literate learners. Information literate learners should be able to:
(1) identify the need for information, (2) find the information with a focused search strategy, (3) evaluate the information and revise the search strategy, (4) use and share the information appropriately

Knowledge: The purpose of this assignment is to help you to (1) locate and investigate resources available in your field of study, (2) examine connection between your field of study and chemistry

Attitude: The purpose of this assignment is to help you to (1) reflect and assess your learning experience, (2) transform into an organized learner to improve the quality of own work

Task

Background: The word ‘chromatography’ comes from the Greek words for “color” (chroma) and “to write” (graphein). Chromatography is a method of separating, purifying, and identifying very small amounts of mixture.

Major task: Find out how chromatography is used in your field, and/or focus on narrowing your search onto one aspect of chromatography. Pay attention on navigating with effective search strategy, aligning scopes of search outcome with your comprehensive level, and reflecting on your learning experience.

Format: Prepare report with 4-5pages with 1.5 or single spaced using 11 to 12 font size, with following guideline for each section in ‘Criteria for Success.’ Use a heading for each section, and follow the APA citation guide.

Criteria for Success

Section and essential questions to answer

Section I: Explain your search path.

- What search engine or database did you use? Explain the steps you followed to select and use this resource.
- What keyword(s) did you type in? - How did you narrow or broaden your search with keywords or Boolean Operations?
- Was the site/source that you started with useful for your purpose? Why or why not?
- How did you select the sources you used?

Section II: Indicate the time spent, separately, on search and writing.

- How many hours did you spend on searching and evaluating information?
- How many hours did you spend on writing and revising your report?

Section III: Write a summary of information and explain reasons for choosing sources

- Write a summary of research information.
- What is your source about? Who wrote it? How was the information found? Why is this information important to your topic?
- What criteria did you use to select each source?
- How many total sources did you select from?
- How did you decide which sources were useful? Explain why.

Section IV: Reflect on your learning experience.

- What did you learn about in terms of the broad subject (chromatography), discipline (chemistry), information management (finding and using resources), and/or time

- management?
- How would you manage your time differently if you did this assignment again?
 - What advice would you give to another student working on this assignment?
 - What do you think of chromatography and its application for your life?

General advice

Utilize campus resources such as your Undergraduate Services Librarian and the Writing Center peer tutors effectively. Manage your time well with pre-writing invention guideline, Gantt, or timeline chart. Examine the accessibility level of your search outcomes; for your comprehension, avoid too difficult articles. Avoid commercial sites with potential bias and checking only the first few sites or just hopping into the databases without strategizing your plan and adjusting for the best outcome. Making a plan ahead of time will make the research process faster and easier overall. Remember to document well and reflect your journey of learning process and outcome. Keep journaling your learning process with lessons learned, challenges faced, and problems solved.

Advice from the former students who completed this project

“I really struggled to stay organized and would encourage other students undertaking this project not to procrastinate”. “I would do more research to begin with and find more articles to use with depth keyword development because this assignment was more about the process and learning experiences, development.” “I learned that keywords are important in research; even a minor word change will provide different resources.” “I will first ask for help if I need further information or basic ideas of the topic, or tell my friend to be clear on research topics, because this will decrease the time me or my friend spend on research significantly.” “I would advise students to be proactive when it comes to this paper and not wait until the last minute.” “Another thing that I would have done differently is asked for help from a librarian on the research section because finding sources that were applicable to me proved to be a tough obstacle.”

In-Class Librarian Workshop, Writing Center Peer Tutoring Submission

The Librarian workshop includes web resource evaluation, search strategies, database, section guidelines, citation, and questions from your preliminary work. If you miss the workshop, make an appointment for individual session with the Undergraduate Services Librarian. Follow the Writing Center Guideline for making an appointment at <https://polytechnic.k-state.edu/writingcenter/> for a date at least 2 days before due date.

Submission

Submit the final electronic file into CANVAS, AND submit compiled paper copies of final report, draft(s), preliminary worksheet, communication note with the writing center.

Grading Rubrics

Section I	1-2 points	3-4 points	5-6 points
search path	unclear insufficient	somewhat clear and reasonable with a few questions	clear, reasonable, relevant
Section II	1-2	3-4	5-6
time spent	no consult no revision	consult library or writing center poorly revised	consult library and writing center, well revised
Section III	1-2	3-4	5-6
summary source	1 or 2 sources	2 or more sources lack of criteria	2 or more sources logical criteria
Section IV	1-2	3-4	5-6
reflection	no or poor	reasonable	Insightful, well done
Section V	overall quality listed below		

- 0-1 The paper is unacceptable because it does not meet requirements.
- 2-3 The paper ignores the questions asked or has major content problems.
- 4-5 The paper is incomprehensible due to poor organization/presentation/development.

- 6-7 The paper suffers in quality with insufficient information.
- 8-9 The paper presents the work with insufficient and/or irrelevant reasoning or criteria.
- 10-11 The paper presents the work with reasoning and criteria but does not provide reflection.
- 12-13 The paper presents good work with reasoning, criteria and reflection, but shows weakness or problems in certain area.
- 14-15 The paper meets all the criteria and the writer understands the purpose of the assignment.

Worksheet Example to follow

Plan on time management

Action item to do	Planned	Done
Work on preliminary work to bring a draft for in-class librarian workshop and complete draft with Section I and III within three and four days after the In-class librarian workshop activity.		
Write a report draft with Section I, III, and IV and obtain the Writing Center peer tutor feedback at least two-three days before the due date.		
Revise the report and complete with Section II. and submit		

Check before submitting your work:

If you have not participated in In-Class librarian workshop, when was individual session? _____

If you have participated in Writing Center Peer Tutoring, when was?

Make a worksheet with following example questions and fill before, during, after your work.

Plan ahead: Fill this before you start

My field of study/major is	
Key words to consider using are	
Search engine or database that I use usually are, because	
I plan to use this database (or search engine) first, because	

Action/Process to find/evaluate information: Fill this while you do search

First set of search tools used are	
First set of key words used are	
Initial search outcomes are (or are not) matching to my expectation, because	
I need to <i>narrow or expand</i> my search option, areas, etc, because	
Changes that I am making are (e.g. key words to --, database change to ---)	
I need to work on more, because	
Initial evaluation search sources and outcomes are reasonable, because	
I think that I have reasonable sources to work, because	

Action/Process to make summary:

Source	It talks about	I did follow up/additional work after reading this article

Time tracking: Initial session starting and ending and follow-up session starting and ending date/time, etc

Notes during the search process and after your search process to reflect:

questions, ideas, lessons learned, challenges, suggestions to myself, peers, teacher and librarians, ----.

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Please complete this checklist and submit it on top of the packet of assignment you submit.

_____ I have all the materials in the packet.
_____ worksheet to follow in the assignment guideline P3 or similar work management follow up sheet

_____ additional notes during the librarian workshop and while working on this project. Print the complete Grammarly's "uncorrected score sheet + analysis (which includes the margin comments)

_____ I have addressed all parts of the assignment.
_____ search path, time record, a summary of research information and criteria of chosen sources, reflection about chromatography, chemistry and my discipline, information and time management

_____ I have utilized all available resources to improve the quality of my assignment.
_____ librarian consultation about the appropriateness and relevance of the articles chosen
_____ Grammarly tool for help on writing skills and writing related problems

_____ I have uploaded the final version of e-file in CANVAS using suggested title and format.
Format with 1.5 or single spaced using 11 to 12 font size, with a heading for each section
All sources in the bibliography are formatted in APA citation style
Title as year semester assignment title _ first name last name such as
2019 Sp Chromatography John Doe

_____ I have addressed my endeavors to complete this assignment, examined the connection between my field of study and chemistry, and reflected lessons learned, and challenges faced.

Additional comments to add: