

Health Science Senior Project

Advisor: Dr. Malhotra

Career Exploration

Welcome to the senior year Health Science Major! It is a three year program starting with the sophomore year and ending with your graduation from TOHS. Graduation with Major recognition is a great honor reserved for those who satisfy all requirements in the program. Among those requirements is to attend all grade-level meetings and complete a grade-level project. Each grade level has a different project related to your future college or career exploration after completion of high school. Here are some guidelines to help you complete your senior year project successfully.

Grade-Level Project

Your senior year project is an opportunity for you to reflect on the health science major program and plan for your future career. This project involves a poster board using APA format and a short presentation to our local professional judges in the medical/scientific field. You will choose a career of your interest and prepare an exhibit/poster by 5/1/17. Before you start your research you must discuss your career topic with your advisor. If you did not attend last year's senior exhibit, you are welcome to come to E8 and see some great projects from previous years.

Materials: You will need a tri-fold board (36"X48"), any pictures from your internships and job shadows, pictures from your work place (if relevant), interviews with professionals, pictures and other information from tours and field trips, data from conference and career fairs, knowledge from college night, guest speaker presentations, internet search, and evidence of any other prior knowledge in your field of interest. Your data may be in the form of words, tables, graphs, charts, images, interviews etc. Your project will comprise of the following six components. Please read each section carefully and ask questions before compiling any data for the project.

Parts of the Senior Project: Your project must be on a 36"X48" poster board, formal, professional, neat and without any smudges, tears etc

1. **Title:** Make a creative title on your chosen career for your tri-fold board. Your title must be bold and produced in Word Art with a minimum font size of 45. Your title must be an attention grabber and made in attractive colors. Your name must be present on the top right backside of the poster.
2. **Background and Introduction:** What sparked your interest in this career? What did you do? How did you collect all the information for this project? What research was done? Were any professionals involved? (1 page)
3. **RESULTS:** This section has all your data including the pictures from your internships, job shadows and work place (if relevant), interviews and pictures with professionals, pictures and other data from tours and field trips, data from conferences and career fairs, knowledge from college night, any other prior knowledge in your field of interest. You must collect data on the time investment, tuition, sources of funding, and curriculum at the college of interest. This section must have at least one graph plotted in MS Excel /Google Sheets and one data table created in MS Word by you (no one else can plot these for you!!). Each picture or figure must be accompanied by a legend with a short description of that figure. This legend is placed on top of a table and below a figure/graph. If you have any 3-dimensional model, video, PowerPoint, or other multimedia component under this section, you can display them on your table on the day of the Final Exhibit (3-4 pages). *Remember, you may not get these poster boards back!*

Health Science Senior Year

4. **Discussion:** This section relates your research, background, knowledge, and work experience to your career. Using the Word or Excel, you must compile your data into a data table, plot your data into a graph (line, bar or pie) and describe and discuss your graphs in detail in this section. Also describe any job shadows, internships, or volunteer activities that were relevant to the career you have chosen. Did the Health Science Major shape your career choice? Discuss your thinking processes and how your career goals may have changed due to your experiences over the last four years. You may want to include a comparison between two institutions of higher education related to your career choice and provide data on each. If you prefer one institution or career over the other, support your decision by supplying data and discussion. Discuss the financial aspect, time commitment, funding sources, and work place in different careers. If you are comparing two universities or colleges, include their curricula and other features that may have helped you to choose one over the other (3-4 pages).
5. **Conclusions:** This is the most important part of your project. In this section, you draw conclusions about your research. Are you happy with the career pathway you have chosen? What are its pros and cons? What is your conclusion about the research and other Health Science Major activities? Did you benefit from your participation in the Health Science Major? (half page)
6. **Acknowledgements:** In this section thank all the professionals in the TOHS Majors Program and other institutions who helped you with your research, data collection, analysis, and other feedback throughout this project.

Please Note:

- ☺ To discuss and get feedback on your project, you must attend ALL monthly lunch time meetings and communicate via email if you have any questions.
- ☺ If you fail to attend the monthly meeting, you must email your advisor and meet for at least 30 minutes on a different day to discuss and get feedback on your project (lunch time, E8).
- ☺ Your project must be printed out and turned in by the due date so that I can modify and give you feedback if needed.
- ☺ **Mandatory Poster Presentations are in the TOHS Cafeteria on Wednesday, May 3, 2017: 6:00-7:00 pm.**

Sept 28	Welcome and Introductions/Elect leaders/Discuss responsibilities
Oct. 26	Guidelines for Final Projects; Sign up for projects
Nov 30	Speaker: Shari Wadman, Physician's assistant
Dec 14	Speaker: Dr. Mah, neonatologist
Jan 18	Project Review and Feedback
Feb 15	Dr. Leong, Pediatric Cardiologist & Project intro and background due
March 15	Speaker: Dr. McGregor, optometrist and Project data, results and discussion due, start conclusions and acknowledgements
April 19	Speaker: Dr. Conover, PhD. Neuropsychologist and Final Project layout on the poster board
May 1	Final Poster boards due; Practice presentation and discuss dress code; Prepare for Showcase, End of the year PARTY!
May 3	<u>Senior Poster Presentations in Cafeteria (Multi Purpose Room); 6-7 pm; attendance is mandatory; formal dress please!</u>

Important dates for the Senior Project:

- ☺ **Meeting Days:** **Wednesdays**
- ☺ **Meeting Time:** Lunch time-12:15-12:45 pm
- ☺ **Location:** E8
- ☺ **Senior Poster Presentations:** **Wednesday, May 3, 2017; 6:00-7:00 pm, TOHS Cafeteria**
- ☺ **Contact Information:** nmalhotra@conejousd.org Phone: 805-495-7491 Ext 1408
- ☺ **Website:** drmalhotrassciencecorner.weebly.com

Health Science Senior Year

Health Science Majors Program Officers Senior Year _____

President:

Name: _____

Phone: _____ Email: _____

Responsibilities: Opens each meeting; makes arrangements with the vice president if unable to attend a meeting; makes sure the meeting notice has been emailed to all members and a bulletin request has been sent to the activities office; closes each meeting and informs the members about the agenda for the next meeting; collaborates and communicates with the **program advisor** and **Majors Office (K2B)** on a regular basis.

Vice President:

Name: _____

Phone: _____ Email: _____

Responsibilities: Conducts meetings and completes other responsibilities in the absence of the president; Creates a window sign for each meeting with the agenda; organizes the presentations during lunch time; emails all members and informs about all meetings and their agenda; emails a summary of each meeting to all right after the meeting.

Secretary:

Name: _____

Phone: _____ Email: _____

Responsibilities: Passes out and collects the lunch time presentations evaluation forms; helps the VP to create a window sign for each meeting with the agenda turns in a bulletin request to the activities office; helps organize any fundraisers; makes sure the site is cleaned up after each activity; helps the public relations officer with getting guest speakers, judges and food donations.

Treasurer:

Name: _____

Phone: _____ Email: _____

Responsibilities: Keeps a record of all the funds raised during different fundraisers and informs the advisor and other officers about the used and any remaining funds; works with the public relations officer to organize food and drinks for each lunch time meeting.

Public Relations Officer:

Name: _____

Phone: _____ Email: _____

Responsibilities: Organizes events to promote the program such as "hello day"; prepares handouts/flyers for students; Organizes to bring food and drinks for lunch time meetings; communicates with the parents to get food donations; communicates with the local industry to bring in guest speakers and judges for the final exhibit on

Wednesday, May 3, 2017

Health Science Senior Year

Health Science Major Senior Project: Career Exploration

Seniors: Please pick a career from the list provided or a new one that you would like to pursue after graduation from TOHS. Start collecting data by internet research/library research/interview/visits/email/databases...Find professionals in your field of interest and take pictures at each step! Please see projects from last years that are kept in E8 (ask Dr. Malhotra). The final trifold poster board is due May 1, 2017 and the final exhibit is scheduled for May 3, (6:00-7:00 pm) 2017.
Final Exhibit attendance and presentation is mandatory!

Health Science Major Project -- Career Choices

1. Chemist
2. Dentist
3. Dental assistant
4. Doctor
 - Allergist
 - Dermatologist
 - Anesthesiology
 - Alternative medicine
 - Pediatrician
 - Dermatologist
 - Internist
 - Family practice
 - Gynecologist/Fertility
 - Neonatal
 - Emergency Room
 - Chiropractor
 - Immunologist
 - Endocrinologist
 - Epidemiologist
 - Geriatrics
 - Obstetrics
 - Podiatrist
 - Urologist
 - Pulmonary Specialist
 - Pathologist
 - Neurologist
 - Rheumatologist
5. Forensic Scientist
6. Genetic engineer
7. Genetic counselor
8. Lab assistant
9. MRI Tech
10. Medical assistant
11. Medical Examiner
12. Microbiologist
13. Nanotechnology
14. Nurse
 - Labor and delivery
 - Nurse Practitioner
15. Optometrist
16. Ophthalmologist
17. Orthodontist
18. Physical therapist
19. Pharmacist
20. Psychologist
21. Family therapist
22. Psychiatrist
23. Radiologist/Nuclear Medicine
24. Researcher
 - Biochemistry
 - Pharmacology
 - Toxicology
 - Physiology
 - Biotech/Molecular Biology
25. Social worker
26. Surgeons
 - Orthopedic
 - Brain
 - Heart
 - Oral
 - Plastic
 - Cardiothoracic
27. Ultrasound
28. Veterinarian
29. X-ray Tech
30. Other medical/health professional



Health Science Senior Year

Student Critique of the Guest Speaker Presentation

Name of the presenter _____ Topic _____

Use 1 as inappropriate to 5 as excellent.

Enthusiasm of speaker	1	2	3	4	5
Vocabulary level appropriate for audience	1	2	3	4	5
Interesting content	1	2	3	4	5
Warmth of personality of the presenter	1	2	3	4	5
New ideas presented	1	2	3	4	5
Talk was easy enough to follow	1	2	3	4	5

1. What new information did you learn from the presentation?
2. What was the most important concept presented by the speaker?
3. Have you become aware of a new potential career for yourself?
4. What further questions do you have that the presenter might be able to answer?

Student information: Name _____ Date _____

Student Critique of the Guest Speaker Presentation

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Talk was easy enough to follow	1	2	3	4	5

1. What new information did you learn from the presentation?
2. What was the most important concept presented by the speaker?
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Student information: Name _____ Date _____

HEALTH SCIENCE SENIOR PROJECT RUBRIC

Career Exploration

Please remember that this evaluation is intended to give positive feedback to the presenters. All students have participated in different field trips, internships, job shadows, and intense research in order to complete this project.

Student Name: _____

Project Title: _____

Graded by: _____

A. CONTENT		High			Low	
		5	4	3	2	1
1	Title -creative, attractive, bold, and attention grabber	5	4	3	2	1
2	Background and Introduction - describes research and different professionals and institutions involved; what sparked your interest in this career; what will you contribute to this career	5	4	3	2	1
3	RESULTS-Data: Pictures, tables, charts, graphs, interviews, research, models, multi -media, CDs, flash drive, any other information on the project.	5	4	3	2	1
4	Discussion -describes the outcome of all the research, knowledge, and experience you have gathered during this project; relates research to your final career; compares and contrasts different careers	5	4	3	2	1
5	Conclusion: short conclusion on your chosen career pathway; emphasizes the role of health science program.	5	4	3	2	1
6	Acknowledgements -appreciates and thanks all the professionals and institutions for the contributions, time, effort, and advice during the project.	5	4	3	2	1
7	Body of Poster -overall body of the poster has relevant content and describes each topic clearly.	5	4	3	2	1
8	Organization -the poster is organized, neat, and clear.	5	4	3	2	1
Total in A (40)						
B. EXHIBIT						
9	Display -the poster is displayed in an orderly fashion	5	4	3	2	1
10	Preparedness - presenter is prepared to answer questions during the poster session	5	4	3	2	1
Total in B (10)						
C. FORMALITY						
11	Dress -appropriate and formal dress	5	4	3	2	1
12	Courtesy -treats other students and visitors with courtesy	5	4	3	2	1
Total in C (10)						
D. POSTER SESSION						
13	Quality of student answers during the poster session	5	4	3	2	1
14	Confidence and fluency in answering questions	5	4	3	2	1
15	Technology -appropriate technology incorporated to prepare poster	5	4	3	2	1
Total in D (15)						

Grand Total: _____/75 Grader's signature: _____ Date: _____

Thank you for your support!

Senior Project Layout
Trifold Poster Board
Final Project Due: _____

Title		
Introduction (1 page)	RESULTS-Data: Graphs, pictures, data tables, charts with legends Data tables must be created in MS WORD; Graphs must be created in MS EXCEL or Google Sheets using your research data. Legends for the data tables go on top of the table Legends for the graphs/figures go below the figure Each picture must be accompanied by a short legend DO NOT copy and paste graphs and tables from the web; instead gather data through research and create your own tables and graphs	CONT. Discussion (3-4 pages)
Discussion (3-4 pages)		Conclusions: 1-2 paragraph(s) Acknowledgements (1-few lines)
Any Additional Information, CDs, handouts, models, props...		

Final Project Topics

Health Science Major Senior Project: Career Exploration 2016/2017

Seniors: Please pick a career from the list provided or a new one that you would like to pursue after graduation from TOHS. Start collecting data by internet research/library research/interview/surveys/visits/email/databases...Find professionals in your field of interest and take pictures at each step! Please see projects from last years that are kept in E8 (ask Dr. Malhotra). The final trifold poster board is due **May 1** and the final exhibit is scheduled for Wednesday, **May 3** (6:00-7:00 pm) 2017. Final Exhibit attendance and presentation is mandatory for all health science seniors!

#	Name	Project Title	Progress/Comments
1			
2			
3			
4			
5			
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11			
12			
13			

Health Science Senior Year

#	Name	Project Title	Progress/Comments
14			
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16			
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32			

Health Science Senior Year

#	Name	Project Title	Progress/Comments
33			
34			
35			
36			
37			
38			
39			
40			