TIME TO PREPARE FOR
DSA 5900 PROFESSIONAL PRACTICE
THE PRACTICUM

• For non-thesis students the Professional Practice should be completed in your final semester, and is 4 credit hours. This course is to focus on real-world application of the skills learned in the DSA program.

• The DSA office is here throughout for guidance and support, but as a graduate student you are responsible for meeting your deadlines!
BEFORE YOU ENROLL

• The semester **prior to enrollment** is the time to begin applying for internships, researching projects at work, or reaching out to faculty for projects. To meet the requirements, the set of activities that you expect to complete during the practicum must contain high-level Data Science and Analytics work, equivalent to what you would learn in an equivalently credited, 4 credit hour, graduate-level course.
GETTING STARTED

• You will need to identify a practicum sponsor, someone to oversee the work and who will provide the DSA office with progress reports during the practicum, and a final evaluation at the end.

• Once you have your practicum identified the next step is to submit your proposal to the DSA office for approval. This is done in Canvas.

• This must be done by the end of the first week of the semester.
YOUR PROPOSAL

The proposal should contain the following 5 sections:

• **Introduction.** A brief description of the practicum project, including a discussion of how this project will contribute to the research/business objectives of the sponsor.

• **Objectives.** This objectives section should state the technical project objectives, as well as your individual learning objectives.

• **Plan.** The plan section should provide a discussion of the specific project(s) that you will work on and identify your responsibilities for each project. Include what skills from the DSA core courses you intend to apply to the project.
YOUR PROPOSAL CONTINUED

- **Deliverables.** The deliverables or outcomes of the plan should be described here, to include your report and presentation. Plus the specific deliverables from your project.

- **Schedule.** A timetable for completion of the practicum projects should be provided here. This should also include how many credit hours the practicum is for, if it is a paid internship, un-paid internship or research project, and who will be supervising the work (include name, contact and title).
The next step is the work!
WHAT NEXT?

• At the end of the semester you will be required to submit a written report, and give a 20-minute presentation on all the work you completed during the practicum. The written report must be submitted 48 hours prior to your presentation.

• The presentations will be scheduled by the DSA office.
The report should contain the following 8 sections:

• **Introduction.** A brief description of the practicum project, including a discussion of how this project did contribute to the research/business objectives of the sponsor.

• **Objectives.** Did the objectives change from the original, or need to change during the practicum?

• **Data.** Describe the data environment, how you approached interpreting and understanding the data. What techniques did you apply to prepare the data for analysis?
YOUR REPORT CONTINUED

• **Methodology.** Techniques and procedures.

• **Results and Analysis.** Explain your results and how they were achieved, or if not why and what would you change. Include a discussion of the impact of the project outcomes on the research/business objectives. Identify the DSA skills that were applied.

• **Deliverables.** The deliverables or outcomes of the plan should be described here.
YOUR REPORT CONTINUED

• **References.** All literature used to guide the solution and/or cited in the main body should be referred to in this section.

• **Self-Assessment.** What were your individual learning objectives, and did you accomplish them? What DSA skills were most useful in this project? What skills did you have to learn independently to complete this project?
The final requirement is the oral presentation.

This should be no more than 25 minutes long, practice and time it!

It should highlight your objectives, deliverables, schedule, results and self-assessment as described in your written report.
PRESENTATION CONTINUED

• You will be presenting to a small faculty panel, and you are to use slides/visual aids as part of your presentation.

• There will be a 5 minute Q&A at the end of your presentation.

• Practice your presentation and time it, so you are prepared and confident for the Q&A session.
# 5 Grading Components

<table>
<thead>
<tr>
<th>Assessment Items</th>
<th>Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proposal</td>
<td>Proposal is grammatically correct, includes all required sections, and clearly identifies practicum work tasks and relevance to the degree</td>
</tr>
<tr>
<td>Supervisor’s Report</td>
<td>Lists dates worked, describes project(s) and student’s responsibilities, and evaluates student’s performance.</td>
</tr>
<tr>
<td>Technical Performance</td>
<td>Project(s) is/are completed as assigned using good data science and analytical principles.</td>
</tr>
<tr>
<td>Written Report</td>
<td>Report is well organized, clearly written, contains no typographical or grammatical errors, and includes all required sections.</td>
</tr>
<tr>
<td>Oral Presentation</td>
<td>Presentation is delivered professionally and student responds to committee’s questions effectively.</td>
</tr>
</tbody>
</table>
YOU ARE READY FOR DSA 5900 PROFESSIONAL PRACTICE!