# **Information Systems Graduation Project Assessments Standards and Guidelines**

# **3rd semester 2023-24**

## GP1 Assessments:

### Assessment A: Project Report

### Assessment B: Presentation (Slides and Performance)

### Assessment C: Performance (Progress)

## GP2 Assessments:

### Assessment A: Project Report

### Assessment B: Presentation (Slides, Performance and Poster)

### Assessment C: Performance (Progress)

### Assessment D: Project Final System

# Assessment A: Project Report

## Part 1: Organization and Formatting Guidelines

To write professional looking reports, please follow the following guidelines:

### Report Structure and Template Guidelines:

Please refer to GP1 and GP2 Report Template for report layout and structure that need to be followed. The report structure provided in the template is the **minimal requirements** for a report, it is open for students and supervisors to add sections and subsections as needed.

### Report Formats Guidelines:

1. Use **only black** color for text.
2. Use **“Times New Roman”** font.
3. **12-pt** as font size in your normal text
4. Use headings in **decreasing-size** fonts:
   1. 18-pt chapters
   2. 16-pt section headings
   3. 14-pt subsection headings
   4. 12-pt sub subsection headings
5. Headings should follow a **consistent heading style** (i.e. capitalize first letter of each word and same number style throughout the report)
6. Sections and subsections numbering should be consistent.
7. Line spacing should be **1.5**.
8. Margins: **1 inch= 2.54cm** from the top, bottom and right sides of the page and **1.25 inches = 3.175cm** from the left side.
9. Alignment: **Justified**
10. Spacing should be consistent:
    1. Spacing between sections should be same.
    2. Spacing between a heading and paragraph should be same,
    3. Spacing between paragraphs should be same, and
    4. Spacing between bullet points should be same.
11. Figures should be clear.
12. Tables and figures must all be labelled with numbered captions that clearly identify and describe them (title). Figure captions must be placed below the figures, while table captions must be placed above the tables.
13. If a table is represented in multiple pages, the header row must show on each page for the table for easy reading.

### Language and Writing Style Guidelines

Proper grammar, spelling, and sentence structure. Please **spell and grammar check** your work before submission.

1. Sentences should **not** be **too long**.
2. Proper **paragraph structure** with a topic sentence and detail sentences which flow directly from the topic sentence.
   1. **One sentence is never a paragraph** in academic writing.
   2. All paragraphs have a **topic sentence**. **Detail sentences** flesh out the information from the topic sentence in the order introduced in the topic sentence. **End of paragraph leads into the next** topic.
3. **Transition statements** should connect paragraph to paragraph and section to section where appropriate.
4. Arrangement of paragraphs **follows logical sequence** with clear sentences and comprehension from the beginning of the chapter until the end of the chapter.
5. **Third person point of view** need to be followed throughout the documentation. Refer to yourself as project team members or use passive.
6. Your **project name** should be **consistent** which means it should appear the same way throughout your report. (**Note:** if you have decided the project name have capital letters it should always appear with same capital letters.)
7. **Naming** should be also **consistent**. For example, if you have decided to refer to faculty members as course instructors always use course instructor do not alternate between the two.
8. Figures and tables should come after they are mentioned in the text.
9. Always explain figures and tables in your report so readers can easily follow and understand the intention of these figures and tables. Figures and tables do not explain themselves!

### Referencing Guidelines:

1. Support your work with related resources. The more you have the better. It shows that you did your research before committing your project which strengthens your project.
2. Please cite all your recourses in the proper place in your report. Not just background study related resources but also any resource you have used for different project related tasks. For example: resources helped you overcome issues related to implementing the system cite them in the conclusion section in chapter 6.
3. Referenced articles used to support background studies are preferred to be research-oriented rather than mainstream media. Referenced works are peer-reviewed or authoritative research articles which have an author(s).
4. **If a literature review is conducted**, review at least **4 major references** (e.g. science journal articles).
5. Reference section should satisfy **IEEE referencing format [Numeric Format]**.
6. Citation and references follow correct IEEE format.
7. All cited works, references, text and visual, are done in the correct format with no errors.

### Consistency Guidelines:

1. Produce a unified team project report.
2. Information provided under one section is consistent
3. Information provided under sections of the same chapter are consistent
4. Information provided under each section is consistent with information provided with a related section in other chapters

# Assessment A: Project Report

## Part 2: Content Guidelines

Students need to provide along with the project report an Abstract in Arabic and English for the project report. A copy of the Abstract need to be saved in a separate word document file and submitted with GP2 final submissions as Project Summary document.

### Arabic and English Abstracts

Give a comprehensive overview **of your report** in Arabic and English no more than one page and not less than 120 words. It is similar to the project overview provided in Chapter 1.

### Chapter 1: Planning

#### 1.1 Project Overview

Give a comprehensive overview of your project **not just the final system**. It is like an **abstract** of **your graduation project report** and the ***work you have completed***and ***will complete*** in order to produce your final result (final result is a system that solves the problem). You need to give a complete and concise description of your work. Which include:

1. A summary of your **motivation** (i.e. the initial general problem you want to investigate and solve)
2. **Purpose** (i.e. investigate the problem and then apply what you have learnt in other courses to solve the problem).
3. ***Major results*** *which include your proposed solution.*

* ***Major result*** *for the project first stage (GP1 project) is: a verified problem and an initial design for the proposed system (solution to the problem). The verified problem statement is a result of performing background studies in chapter 2. The initial design is the result of requirement analysis presented in models in chapter 3. The first model is the proposed system business process. The second model is the functional requirements as use case diagram and descriptions. Both models are reported in GP1 report and approved by the project supervisor before moving to the second stage.*
* ***Major results*** *for the project second stage (GP2 project) are: the implemented prototype of the proposed system, the test results of testing it and lesson learned from the GP project.*

#### 1.2 Problem Statement

1. Explain the problem that your project wants to address.
2. The problem statement starts as a general problem (GP1 proposal problem statement) and after conducting **the background studies** the problem statement will **be more precise.** Remember to update your problem statement after conducting the background studies.
3. Use references were appropriate to support the need of the project that you have used in your background studies.
4. It is recommended to use a persuasive problem statement (ideal scenario, current situation and consequences) to convenes the reader that there is a problem and if nothing is done to solve the problem the result are negative consequences.

#### 1.3 Project Impact

Address the intended impact of your system on society and environment (in local and global context). Think of the long term and short term benefits your project might have.

* + Are you proposing to introduce a new way of doing things or just an improvement of what exist?
  + How can your project influence your target group after supposed implementation?
  + What changes can your project bring to interested groups?
  + If you are building your project for a company use, what kind of influence will it have to the company and its people?

1. Start with the local impact your project is going to have on the stakeholders’ community of your project.
2. Close the paragraph with few words on the possible Global Impact you think your project can have.
3. The local impact is logically possible and it describes a predicted result of using the system after implementation.
4. The global impact is logically possible and it describes a predicted result of using the system after implementation.

#### 1.4 Project Stakeholders

Stakeholders should be clarified in this section and their roles.

1. Define intended customer who will administer the system
2. Define intended end users of the system

#### 1.5 Objectives

These should describe the **overall goal** in developing the project, high level descriptions of what the project will achieve (at the end of GP1 and then at the end of GP2) it is **not limited to the final produced system objectives**. State your objectives clearly in bullet points. These objectives should reflect the project team’s goals of their Graduation Project. By achieving these goals, your Graduation Project is successful. *The graduation project objectives can include the following:*

1. to analyze the problem and possible solutions by conducting background studies.
2. to propose an information system solution to the found problem based on background studies analysis results and stakeholder needs and expectations (analyze and design based on collected requirements) and then implement and test a prototype of the system in second semester.
3. to use modeling tools to model the system and verify requirements.
4. to deliver a prototype of the proposed system that achieves **final system objectives.**

#### 1.6 Approach

Explain approaches that will be used for different project aspects (what are you going to do and how you are going to do it). This will help students determine the work they need to do for their graduation project. Such project information include:

1. The **software development methodology** that will be used. Explain the chosen software development methodology and justification. The explanation of method phases should reflect the work that needs to be done in each phase specifically for your project, not in general.
2. Elaborate on the **background studies** you **planned** to perform, the planed approaches for performing these studies including the **information gathering techniques** that will be used.
3. Explain if you plan to use **other requirement gathering techniques** and the tools you plan to develop.
4. You can also include **the project management processes** the team plans to follow in managing the project development phases.

#### 1.7 Scope Statement

Describe what work is in scope for the graduation project, and specifically what work is out of scope.

1. Assumptions and constraints put by the project team and supervisor regarding the background studies.
2. Assumptions and constraints put by the project team and supervisor regarding the final proposed system.
3. Boundaries and limitations **not** just for the final produced system but also for the work the students do in order to produce the system.
4. Deliverables. For example: chapters or sections of the report, final report, segments of the proposed system, final system, presentation, and a poster.

#### 1.8 Work Breakdown Structure

Provide a **Work Breakdown Structure** based on the chosen project approaches provided in section 1.6 please consider the following:

1. In the Work Breakdown Structure section, you need to refer to the figure and explain the major work classification.
2. Work breakdown structure should reflect tasks related to your methodology phases and include some other tasks such as documentation. It should not just reflect the course deliverables. It should reflect the work (tasks) you need to do in order to deliver the project deliverables.
3. One common mistake is to breakdown work according to the report chapters and sections (i.e name a work item project overview). That way it seems that the project is all about writing the report! That is not correct! Writing the report is part of your project. It is a task you need to complete at the end or during working on your project. However, you can use the report sections as a guide on what work you need to report and thus help in choosing the proper work item.
4. Break down the work into a reasonable level.

#### 1.9 Gantt Chart (Time Frame)

Provide a Gantt chart to show your project’s time frame for GP1, and GP2 project tasks and activities based on the tabular form of the WBS considering the following:

1. Provide a timeframe for completing the graduation project showing major milestones.
2. Tasks are based on the WBS.
3. Planning, analysis and initial design tasks are planned to be completed in week 9 of GP1 course and the GP proposal document and presentation are planned to be delivered by week 10. Closing GP1 project is during week 10 and 11.
4. Completing design, implementation and testing are planned to be completed in week 9 of GP2 course and the final report and presentation documents are planned to be delivered by week 10. Closing GP2 project is during week 10 -12.

#### 1.10 Team Member's Responsibilities

1. This section is optional if the a students is working on the project individually.
2. Provided a table showing team members responsibilities. You should use the tabular form of the WBS used in the Gantt chart.
3. Divide the work between members so that those who are the best at doing the work would be responsible for it. **One responsible member for each task**.
4. Make sure that work is fairly divided between team members.
5. Show each member's role on each project task (activity). Roles can be Responsible, participated, involved, or consultant. This shows good leadership skills and team management in planning. Do it as if it is a real project in the real world.

### Chapter 2: Background Analysis

#### 2.1 Possible Solutions

1. For the problem described in 1.2, explain at least two possible solutions.
2. Overview the possible solutions and define the criteria you will use in performing a cost-benefit analysis on the overviewed posable solutions.
3. The cost-benefit analysis of each solution is based on the cost and benefit for the developing team, the client or both the developing team and the client.
4. Present the evaluation of the possible solutions in a table and refer to it in the concluding paragraph of this section. Select the best solution that you will implement in your project and justify your choice.

#### 2.2 Overview of Existing systems

1. Provide all planned studies on existing systems.
2. Systems under review are systems used by the **intended client** to solve the problem mentioned in section 1.2 (current used systems by the targeted group) which help the students verify the problem of current used systems.
3. Under this section students also can provide an overview of used/proposed system by others (Benchmarking) to solve similar problems to the problem mentioned in section 1.2. This type of overview is ***optional***. Students are not required to do it unless the supervisor asks them to choose it as one of ***the requirements gathering techniques***.
4. Under each reviewed system section, the review should include an overview of the existing system and its advantages, and disadvantages.
5. Students conclude this section by pointing out the found problem (disadvantages) of current used systems that the proposed system needs to solve and requirements (advantages) that the proposed system needs to include. This helps clarify the problem and helps in proposing a solution in Chapter 3. Students need to demonstrate what portions of the overviewed systems the team will take advantage from and what portions the team needs to improve.
6. Please **Do not** compare your proposed solution with existing systems. Your proposed system **has not yet been born** by the time you are conducting the background study!

#### 2.3 Existing Business Processes

1. Chose the systems that would help the group understand current business process.
2. It can be as a baseline that you need to consider when providing the proposed business process in chapter 3.
3. The existing business process explains how currently your clients are dealing with the problem, showing current processes followed.
4. Illustrate it in one general diagram the existing business processes preferably in BPMN (Business Process Model and Notation). Current Business Process BPMN (As-Is) might consists of subsystems that need to be further explained in BPMN notations. You need to explain the diagram scenario then refer to the figure.

#### 2.4 Literature review [optional]

1. Explain the reason for the literature review that shows it is related to your project.

2. Summarize and review the publications in journals, conferences, etc.

3. The literature reviewed is related to your project.

4. Conclude with the results of the review.

5. Your literature review should be clear and correctly done.

### Chapter 3: Requirements Analysis

#### 3.1 Requirements Gathering Summary Results

1. Introduce gathering techniques used.
2. Divide gathering techniques into subsections. For each gathering technique provide technique structure and summary of the results.
3. Summary results are related to requirements only. Other results related to other project issues should come under the appropriate section and should not be reported under this section.
4. Detailed results with diagrams should be in the Appendix. Only the results summary related to requirements should be under each technique section. This means that you need to provide a summary of requirements gathered under each subsection.

#### 3.2 Stockholder Requirements

1. Provide final stakeholder requirements gathered from all techniques.
2. Stakeholders should be clarified in this section and their stakeholder requirements.
3. If asked by the supervisor, detailed user and system requirements and/or system specifications are kept in another document or put in the appendix and if done so these documents are cited under this chapter as a reference for more details.
4. Final stakeholder requirements gathered in this section should be consistent with other chapters' content.

#### 3.3 Proposed Business Process

1. If applicable, the students base proposed business process on current business process.
2. The proposed business process explains how your clients will deal with the problem by using your proposed system showing the proposed processes followed.
3. Illustrate it in detailed explanation of the proposed business processes preferably in BPMN notations. Proposed Business Process (To-Be) might consists of subsystems that need to be further explained in BPMN. You need to explain each diagram scenario then refer to the figure.
4. The proposed business process is consistent with the proposed system requirements.
5. The proposed system process is used as a tool to verify the supervisor requirements.

#### 3.4 Functional Requirements

1. Briefly explain the Use-case diagram and refer to the diagram (main actors and Use-cases).
2. Use UML 2.0 notations.
3. Provide Use-case descriptions for all the main functionalities. (at least 5 functionalities and at most 9 functionalities) Briefly explain the Use-case descriptions tables and refer to them.
4. Use-case descriptions should be consistent with the use-case diagram and both the diagram and descriptions reflected requirements collected.
5. The use-case diagram and descriptions are used to verify the supervisor requirements.

#### 3.5 Non-functional Requirements

1. Discuss the non-technical issues (such as: response time, compatibility, green-IT, sustainability etc.) of your project.
2. Divide the non-functional requirements into categories.
3. Each category has a list of non-functional requirements that are correctly listed under the correct category.
4. Non-functional requirements are consistent with the requirements gathered.
5. Non-functional requirements are used to verify the supervisor requirements.

### Chapter 4: System Design

#### 4.1 System Modelling

1. System modelling should be consistent with functional requirements. Use UML 2.0 notations for all UML diagrams. System modeling is used to verify supervisor requirements.

##### 4.1.1 Activity diagrams

1. Choose 3-4 main use-cases and draw an activity diagram for each use-case separately. If a use-case is large and complex, you can divide the use-case into parts and draw an activity diagram for each part. Clearly mention the use-case/scenario for the activity diagram in the figure title.

##### 4.1.2 Class Diagram

1. Draw a class diagram for the problem domain layer of your system. The class diagram should be detailed. Include attribute and function names, visibility/scope of attributes and functions, attribute data types, function input and output parameters etc. Clearly show the relationship between the classes.

##### 4.1.3 Sequence Diagrams

1. Choose 3-4 main use-cases and draw an draw a sequence diagram for each use-case separately. Make sure the objects in your sequence diagram are also present in your class diagram. Clearly mention the use-case/scenario for the sequence diagram in the figure title.

#### 4.2 Data Modelling

##### 4.2.1: Data Modelling Diagram

1. Students should apply Normalization techniques in designing ER diagrams.
2. Show all the details in your ERD, including relation names, multiplicity, attribute details, etc.
3. **Guidelines for Implementing NoSQL in Your Project:**
4. Articulate the reasons for selecting NoSQL in your system, emphasizing its advantages and alignment with your project goals.
5. Select a NoSQL data model (such as document, key-value, or column-family) that best suits your project's data structure. Justify this choice by discussing its relevance and efficiency for your specific data needs.
6. Design a database schema that:
7. Meets the data management requirements of your system.
8. Offers scalability to effectively manage current data and accommodate future data growth.
9. Optimize data retrieval and querying in your NoSQL database. Utilize advanced techniques like indexing, filtering, and efficient querying mechanisms to enhance performance.
10. Ensure that your database strongly supports data integrity, implements thorough validation processes, and possesses reliable error recovery capabilities.

##### 4.2.2 Data Dictionary

1. Use a table for your data dictionary. Provide names, data types, and descriptions for each attribute.

#### 4.3 Detailed Interface Design

1. Include visual representations of the input and output interfaces with their small description and purpose to design.
2. You should also provide visuals representing each functionality described by each use case.
3. Interface design consistent with functional and non-functional requirements and is used to verify supervisor requirements.

#### 4.4 Component Diagram [optional]

1. Show the software component or modules and their dependencies.

### Chapter 5: System Implementation

#### 5.1 System Specification

1. Provide hardware specifications for your system in order to install, test and use the system.
2. Provide software specifications for your system in order to install, test and use the system.
3. Other software and hardware used during the system developing in planning and modeling the system and other work are not required to be listed under this section but are recommended to be provided somewhere in the report so that new GP students would benefit from it and use it as a reference for their work.

#### 5.2 System Testing

1. Provide a list of main system features that you tested.
2. Provided test cases for each listed system feature.
3. Provide a table to show all the test cases, purpose, inputs, expected outputs, pass/fail criteria, test results for each test separately.
4. Test features are consistent with functional and non-functional requirements.

#### 5.3 System Deployment

1. Discuss the deployment process.
2. Provide a deployment diagram for your system showing the software component, processes and objects are deployed into the physical architecture of the system.
3. Expected number of users / loads on your system.
4. Discuss the installation process of your system so that a user can successfully install the system on their device using the provided system files.

### Chapter 6: Conclusion and Future Work

Summarize the main results that you have achieved in response to the problem you have identified earlier and how do this system solve the problem identified and/or address the need to this project**.** Discuss any further improvement or extension that you suggest or plan to do on your system**.**

#### 6.1 Conclusion

1. Discuss the results you have got and provided a summary of the main project results: (i.e. identified problem and proposed system and the results after implementing and testing the system).
2. Explain how do the proposed system solve the identified problem and/or address the need to this project.
3. Provide the obstacles the project team faced during project different phases (initiation – planning – analysis and design – implementation and testing - closing).
4. Explain how the team overcome the obstacles (training, self-learning, etc.) and please cite references and acknowledge people who have provided help and support if existed.
5. Summarize what was learned and how it can be applied.

#### 6.2 Future Work

1. Discussed any further improvement or extension the team suggest or plan to do on the system.
2. Improvements or extensions are a result of system testing.
3. Improvements or extensions are a result of stakeholder requirements that are not met.
4. Improvements or extensions are a result of new features that improves the system.

# Assessment B: Presentation

## Part 1: Presentation Slides and Performance:

To present the project in a compelling manner and effectively you need to follow the following guidelines:

### Presentation Effectiveness:

* + - Well organized slides.
    - Effective use of visual materials.
    - Easy to read slides.
    - Effective use of colors.
    - Content include:
      1. Introduction: The general problem and project objectives.
      2. Project approach and the work that have been done.
      3. Summary of project results.
      4. Conclusion and future work.

### Delivery of Presentation

* + - Speed (not too slow not too fast)
    - Clarity of articulation.
    - Eye contact.
    - well engaged audience.
    - Time management (did not exceed time limit for presentation).

### Handling Questions

## Part 2: Poster

* + - Topic introduced clearly and at the right level.
    - Effective use of appropriate visual materials.
    - Followed poster standards.

Please refer to poster standards file provided in the Appendix.

# Assessment C: Performance (Progress)

## Interaction with supervisor:

* + - Interact with supervisor during meetings to describe work progress and results.
    - Handel questions well when asked about the work the student done.

## Teamwork:

* + - Fulfill team duties and share in the work of the team.
    - Delegate tasks among team members.

## Punctuality and Commitment

* + - Attended all meeting on time.
    - Submitted all work and deliverables on time.
    - **Some examples for GP1 and GP2 deliverables to supervisor:**
      1. GP1 and GP2 first meeting form showing GP tasks and deadlines.
      2. GP1 Proposal Summary form.
      3. Monthly Progress Report.
      4. Drafts of GP1 and GP2 Report (to supervisor to gain feedback).
      5. Project Description (first and final drafts).
      6. Working segments of proposed system (to supervisor to gain feedback).
      7. Final Report before and after discussion.
      8. Final proposed system.
      9. Poster and Presentation.
      10. Signed Final Report (after discussions) النسخة الفاخرة + CD

## Commitment to departmental Submissions

* + - **Some examples for department related GP1 and GP2 deliverables:**
      1. Signed and approved first meeting form (GP1 and GP2)
      2. Accepted and Signed GP1 Proposal Summary form (initial and final).
      3. Signed Progress Repot Form.
      4. Signed and approved Project Description form (first and final drafts).
      5. Signed Final Report.
      6. Presentation slides and Poster.
      7. Final proposed system.

# Assessment D: Project Final System

## User interface design:

* + User interface uses a simple and natural interaction style.
  + The interface is visually appealing.
  + Usability is appropriate to target users.

## Database design:

* + Used Database normalization.
  + Efficient Database design.
  + Students understood their database design.

## System testing, quality and novelty:

* + All features have been tested and are of good quality.
  + Solution Matched project requirements and consistent with report.
  + The final system is a new idea.
  + The features provided are distinguished features.

## Level of students' programming knowledge.

# Appendix



**كلیة علوم الحاسب والمعلومات**

**College of Computer and Information Sciences**



**General Instruction for Students in GP EXPO**

# 2023/2024

For all four departments *(Computer Sciences, Information Systems, Information Management and Information Technology*) the poster contents will be fairly similar. The poster should give a brief description of the project, and summarizes its main findings. Rather, it is expected here that posters should provide a fairly graphic representation of the main features of a project, in which it is more important to get the key ideas across clearly than it is to present lots of detail of the work done. Consequently, diagrams are important, as they are usually illuminating. The *Graduation Project Poster* may include all or some of the following components, as appropriate for the work presented:

# The Poster Content

The first thing to do before you start working of your poster is to organize your text, images, graphs, charts, logos, etc. This is the most important and often the most overlooked time saving-part of the process.

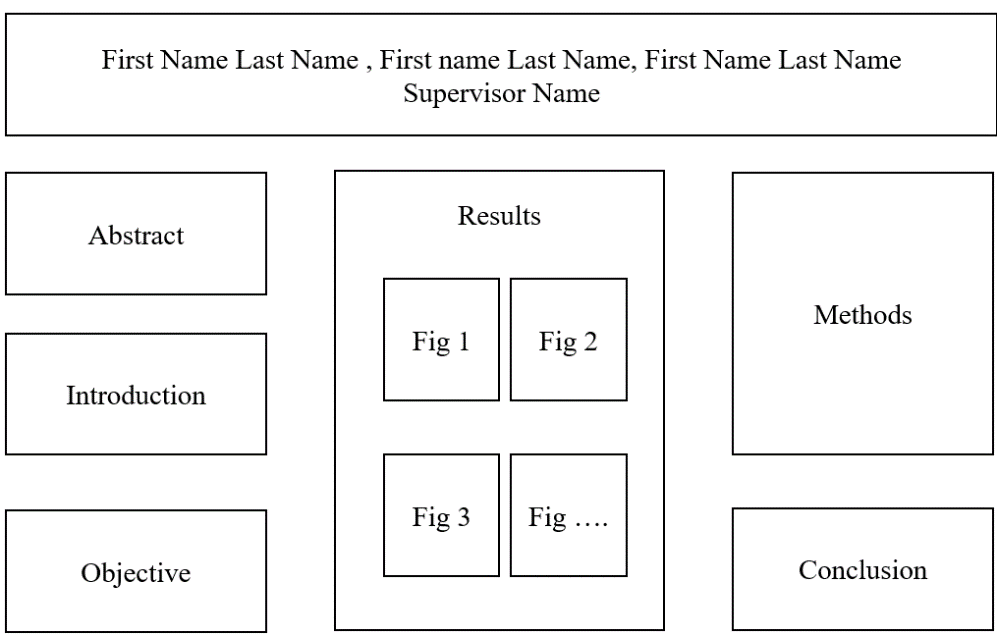
Before copying any information on your draft document, create the following sections. These are standard sections for poster presentations and will help present your work clearly and professionally.

Standard scientific poster sections are: **(See the below Figure 1)**

* **Title:** At the top of your poster, you should have a brief but descriptive title. It should be the same as the title provided in your abstract. The title should be easily readable at a distance of about 3-5 feet away.
* **Students’ names and Supervisor names:** Students' names under Title and

supervisor's name under the student's name.

* **Abstract:** A short comprehensive description of the project.
* **Introduction:** Identifies the problem statement and gives context to the project and its significance with a brief background on the proposed topic and related works.
* **Objectives:** Identify the project aims.
* **Methods:** Includes the system architecture, models and approaches. If the project was mainly concerned with developing a piece of software it should include the methods used for analyzing the requirements, and the methods or tools used for designing and implementing the system.
* **Conclusion:** briefly address how the results contributed to solving the problems that the project aim to solve and the objectives its set to accomplish. Identify obvious limits and confounders as well. Important enhancements and the possibility of project growth should both be taken into account.



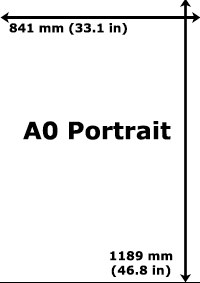
**Figure 1: Poster Layout**

# Unified Formatting

Your graduation project poster and presentation abide by the size and formatting requirements specified by the all *Graduation Project Committee*.

* **Poster Size:** he poster size is unified across all the three departments and applying fixed dimensions to all posters ***is a MUST*** in order to keep the Expo organized and professional. The poster size for any project of Level 8 is a **A0** **Wall Poster (84.1 x**

**118.9 cm) in portrait orientation** **(See the below Figure 2)**.



**Figure 2: A0 Wall Poster Size**

* **Font size:**

o Title: 48-60 pts o Subheadings: 36-44 pts o Body text: 24-32 pts

* **Use of figures, photographs, illustrations:** The poster should present pictures, graphs, and illustrations to convey the project’s information wherever possible. Each illustration should have a heading of one or two lines in large type.

* **Layout:** The poster content must be presented in sections arranged logically and in an attractive display according to what have been described in the previous section “Poster Content”. White space may be used to separate sections and to avoid crowding the poster contents. The poster display should be free of unnecessary details.
* **Computer and Information Sciences College and Imam Mohammad Ibn Saud Islamic University logos should be at the top right corner and your logo at the top left corner. (See the below Figure 3).**



**Figure 3: Poster Template**