



السيد الأستاذ الدكتور / هشام عرفات علي

وكيل الكلية لشؤون التعليم الطلاب

تحية طيبة بعد ،،،

ردا على الخطاب الوارد إلينا من سيادتكم بشأن زيارة 50 طالب من مدرسة العلوم والتكنولوجيا
بجمصة إلى قسم الهندسة الإنشائية

نتشرف بأن نقدم لسيادتكم مقترح لجدول الزيارة يوم الاثنين 2017/11/27 بمشيئة الله تعالى:

م	زيارة إلى:	الموعد	المكان
1	زيارة إلى معامل قسم الهندسة الإنشائية	من الساعة 9 إلى 11:30 ص	معامل المنشآت المعدنية ،معامل المحاكاة،معامل التربة والأساسات معامل مقاومة المواد ،معامل الخرسانة
2	عمل محاضرة عن الكلية وقسم الهندسة الإنشائية	12:00 إلى 12:30	أحد مدرجات الدور الارضى بالقسم أو غرف الدراسات العليا
3	زيارة البرامج التخصصية الجديدة بالكلية	12:30 إلى 1	مبنى البرامج الخاصة (برنامج البناء والتشييد)
4	زيارة للسيد أ.د/ عميد الكلية وكذلك السيد أ.د/ وكيل الكلية لشؤون التعليم والطلاب	من 1 إلى 1:30	بمكتب الوكيل أو أحد المدرجات بمبنى الإدارة

مع العلم بأن منسق الزيارة الدكتور/ محمد محمد غنام

وتفضلو بقبول وافر التحية والاحترام،،،،،

مقدمه لسيادتكم

د/ محمد محمد غنام
13/11/17

محمد محمد غنام
وكيل الكلية لشؤون التعليم والطلاب

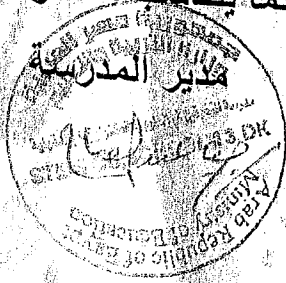


الأستاذ الدكتور / محمد السعيد - عميد كلية الهندسة جامعة المنصورة

تحية طيبة .. وبعد

في إطار اهتمام الدولة برعاية المتفوقين و المبتكرين من الطلاب
نود من سيادتكم إتاحة الفرصة لعدد 50 طالب وطالبة من مدرسة المتفوقين في العلوم
والتكنولوجيا بالدقهلية (جيمصة) بزيارة علمية الى كلية الهندسة (قسم مدني
وانشاءات) في موعد تفضل سيادتكم بتحديدده كما يتناسب لحضراتكم .

مسئول المشروعات



(Handwritten signature)

السيد الأستاذ الدكتور /
محمد السعيد
الإنتباه

بريد (السكر) في العلم وأماز اللوات
(تخصص برنامج الدراسة)

٢٠١٧

د/محمد السعيد
١٠١٧-١٧



Capstone Challenge
2017-2018
Grade 1, Semester 1

Egypt Grand Challenge: Improve Use of Arid Areas through Building structures, Urban Congestion

Capstone Big Idea: A growing population requires improving the Use of Arid areas to reduce Urban Congestion. Infrastructure to support new developments in arid areas of Egypt will require building structures that employ the most artful and most efficient use of materials and technologies.

Essential Question: How do different building structures and tools designs impact function while considering efficient use of materials?

Design Challenge: Your team will design and build a structure of a crane designed to help in carrying loads for the building operations that are taking place in Egypt. Research crane structures, types, usages, and real dimensions (vehicle mounted, tower, crawler, railroad, telescopic, etc.) and select one type of crane structures to design, build and test against the Design Requirements below. Document all of your work in your Capstone Portfolio including your research, recommendations, crane design, crane weight and load tests. (See Capstone Portfolio Template.) Use your data to explain why the crane structure you designed is better to recommend and the reasons for this recommendation, considering load and materials. Be prepared to show your data at the exhibition to support your recommendation.

To be successful, your crane structure prototype must meet the following **Design Requirements:**

- Research real crane structures designs and dimensions. The crane structure prototype must be at a 1/40 scale of the real one.
- No single piece of building material (except string) may exceed the dimensions 12.5 cm long by 1 cm wide by 0.5 cm thick.
- Your model crane structure must be able to have a simulated "carried load" hanged (attached) of a 3 kilogram mass that should be 1 meter from the ground.
- You will measure the deflection (Bending) in the main parts of the structure of the crane prototype –horizontal and vertical deflection- due to each 0.5 kg of mass.
- To minimize the material "cost" of your crane structure prototype, you are to minimize the material in your design that can achieve the desired load.

Materials: Your materials will consist only of the following:

- Foam core, scrap cardboard, and cardstock
- String
- Glue
- Craft supplies for creativity

will also have the following **constraints:**

Use **ONLY** material mentioned above

You must follow **ALL** School Safety rules and document in your Capstone Portfolio. Failure to do so will result in a reduced grade.

No equipment or materials that belong to the laboratories can be removed from the laboratories at any time.

You must conduct those tests that require this equipment in the labs. Failure to do so will result in a reduced grade.

You are **NOT** Allowed to integrate any electronic devices or circuits in your prototype structure.



[Document title]

Capstone Challenges
2017-2018
Grade 2 Semester 1

Grade 2, Semester 1, Water Consumption Reduction, Saving, and management

Grand Challenge: Clean Water, Reduction of Pollution; Recycling; Increase agricultural and Industrial Base for Egypt, Improve the use of scientific and technological environment for all.

Capstone Big Idea: As the whole world including Egypt going through a critical water crisis, Environmental changes as well as the continuous increase in population. Also considering the exaggerated inappropriate water usage behaviors and manners which increase the amount of wasted Water Resources. Students will study the chemistry and physics of water, their own uses of water and the impact of the availability and usage of water through different life applications (Personal, Agricultural, and Industrial). Students will study the story of water over the course of the history of Egypt and project into the future including impacts on the social, economic, political systems as well as general population health, growth and industrial growth.

Essential Question: How could it be possible to improve the usage and utilization of water in different life applications? How could we increase the water consumption reduction to save the resources for future development?

Capstone Design Challenge: Water sources, consumption, usage, management and delivery are among the critical challenges that face Egypt. There are many water problems to be solved that are related to the unjust usage manners in different aspects of life. To contribute to the work underway in this area, you are asked to identify a real water usage or consumption problem related to personal, agricultural, industrial, and/or water sources management (River, lakes, canals, distribution grid, pipe lines ...etc.).

Design a solution (invention, water management technique, sensor, actuator, etc.) to address the problem. Be prepared to demonstrate the potential success of your solution through a testable hardware prototype or testable software prototype that tests 2 of your solution design requirements.

You should provide a recommendation that connects your prototype test plan results to the real-world problem.

Constraints:

- Your project must involve water consumption reduction and saving management Regardless the aspect of usage or the source of water. IT'S NOT About WATER TREATMENT or PURIFICATION
- Your design requirements can deal with issues related to the impacts on the social, economic, political and environmental systems as well as general population health, growth and agricultural and/or industrial growth.