



**مدينة زويل للعلوم والتكنولوجيا**  
Zewail City of Science and Technology

# Zewail City for Science and Technology - Zewail City - Egypt

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**Egypt's National Project for Scientific Renaissance**

## Visionary Behind the Project



**Nobel Lauriat Ahmed Zewail (1999 in Chemistry)**

## City Objectives

**Prepare a New Generation Capable of**

**Thinking Critically and Creatively**

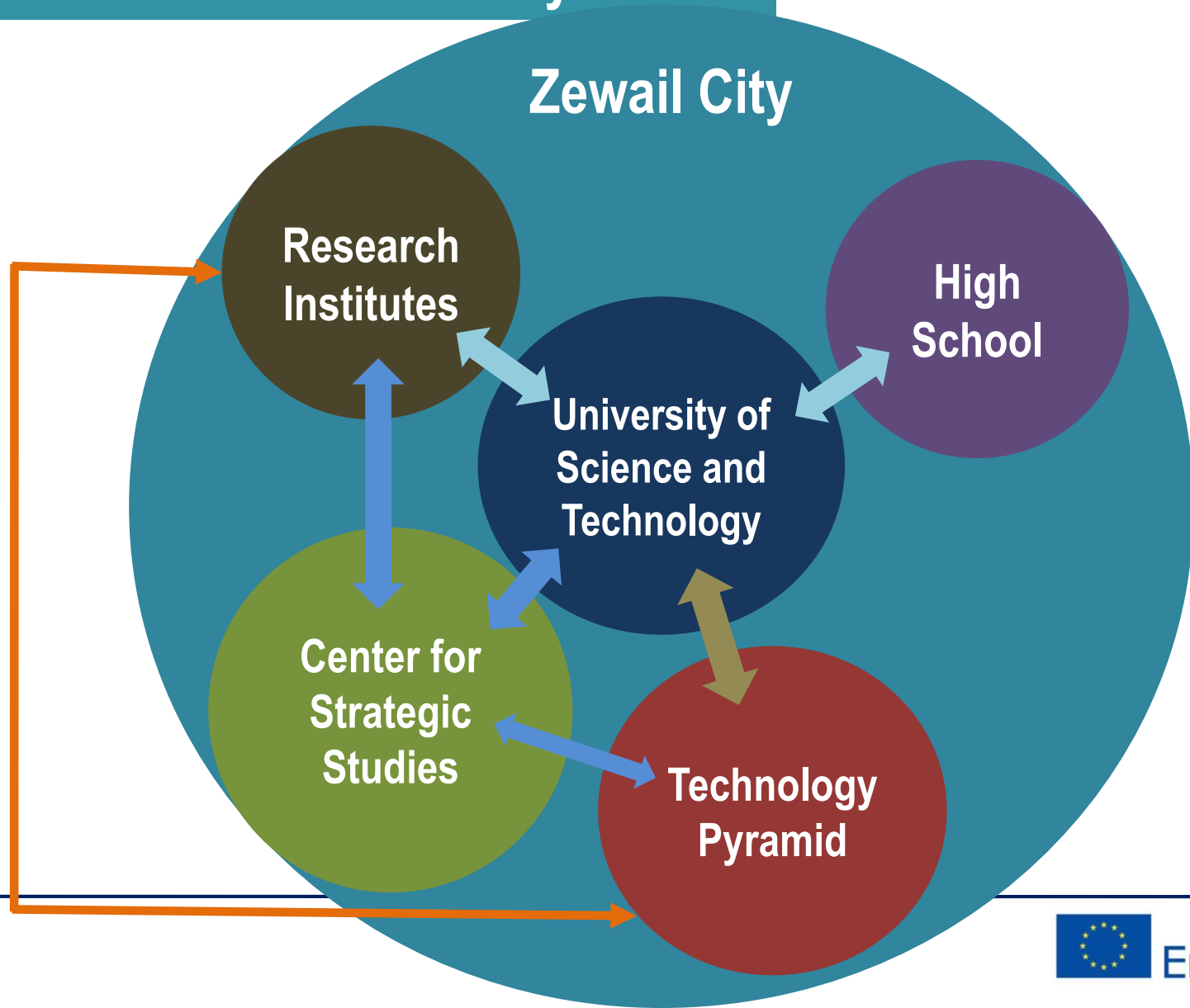
**Mastering Basic Sciences**

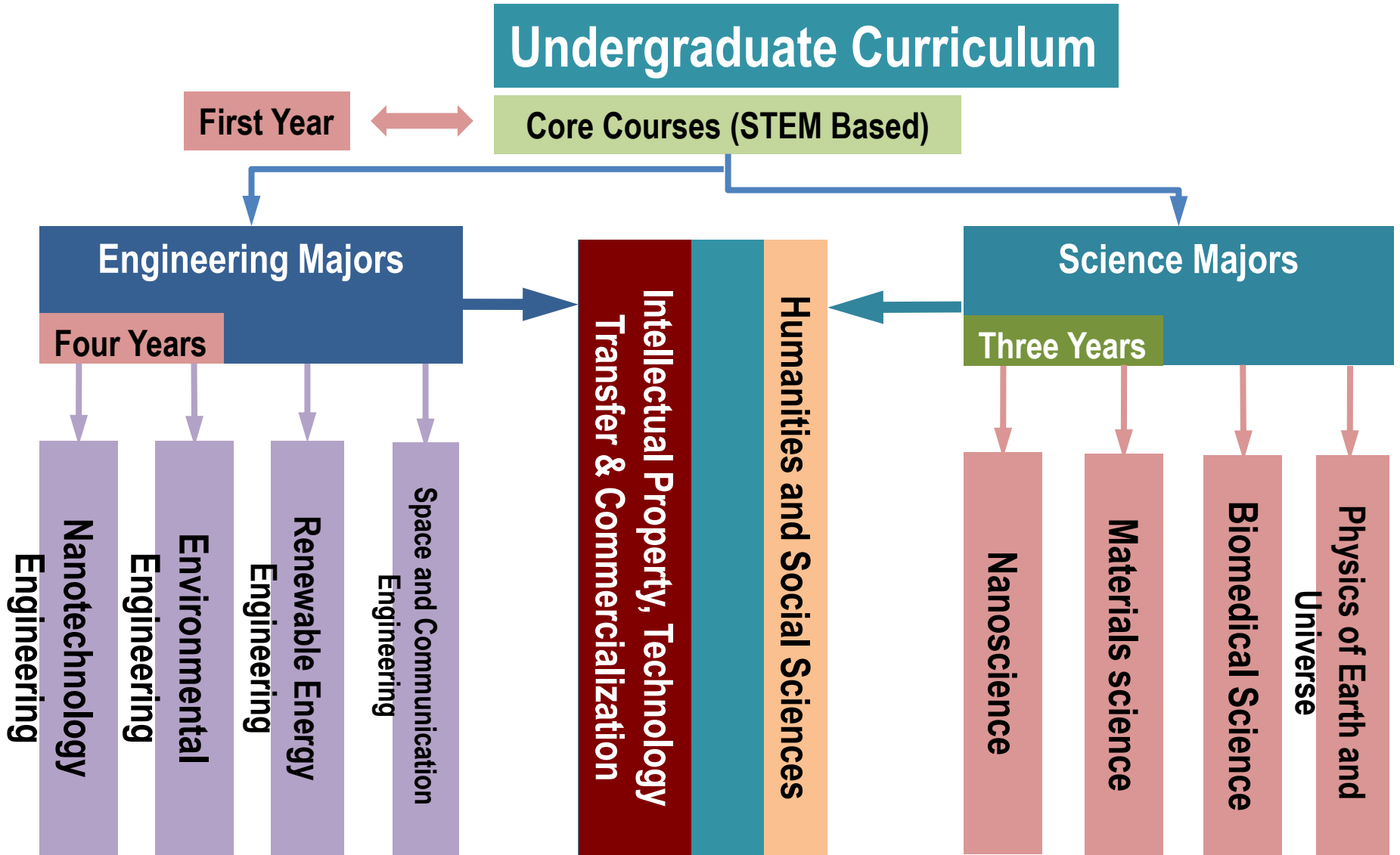
**Linking Academia with Industry**

**Building Entrepreneurship**

**Delivering Outcomes that Have a Significant Impact on Society  
and Economics**

# Structure of Zewail City





## Admission Criteria

High School Score

> 96% for 2014/2015

Score of Basic Sciences

Physics, Chemistry, Biology  
and Mathematics

Admission Exam

To measure depth of  
knowledge and understanding

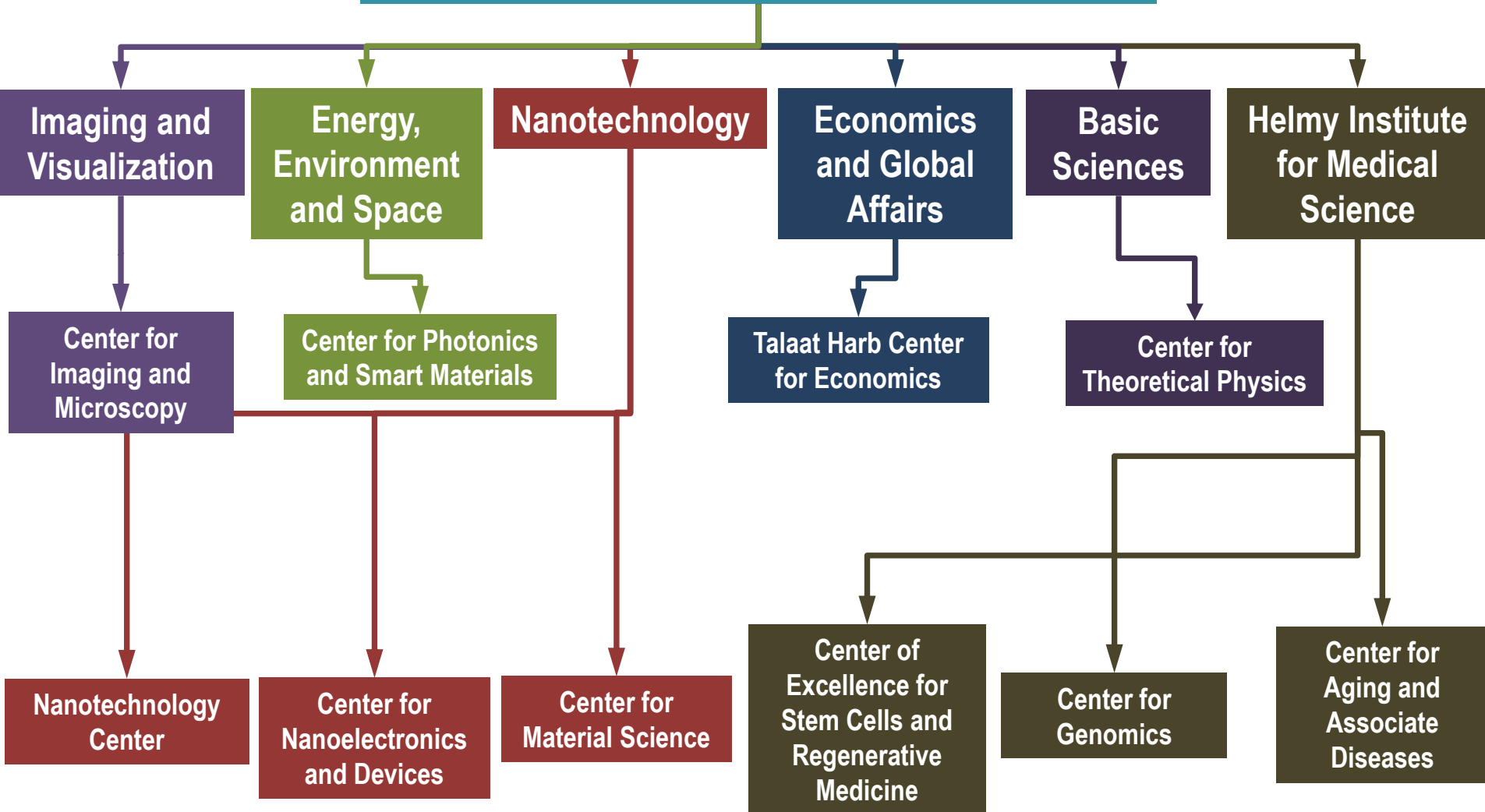
Interview

English Proficiency Exam

Pre-university English Program

Academic Excellence is the Only Admission Criteria

# Research Institutes at Zewail City



# Master Plan





# Working group

Program of Renewable Energy Engineering (REE)  
Program of Environmental Engineering (ENV)

Staff Members:

Dr Ibrahim Ismail (REE)

Dr Fareed Aboul Ela (ENV)

Dr Ibrahim Ashour (ENV)

Students from the two programs

## Working group

The expertise ZC organization intends to bring about the project

Environmental impact assessment

RES technologies

SMEs involvement

Recycle of solid wastes

Desalination

Cleaner Production

## Target curricula

Curricula have developed in ZC are undergraduate programs, namely Renewable Energy Engineering and Environmental Engineering, which are related to [energy](#).

### Current Orientations:

- Establishment and building a foundation for identify development our students as thoughtful individuals growing intellectuals and active members of society.
- Research oriented
- Shift from teaching to learning
- Incubator for industrial innovation and development project

## Target curricula (cont.)

### Deficiencies:

- Some laboratories are still under establishment
- Space problems till moving to new campus
- English language
- Unsatisfactory scholarship

## Target curricula (Cont.)

Internship (Industrial Training), and Capstone (Graduation project) (IGP) are our target in ENEPLAN

Students whom involve in Task 2.4 testing in Cmap 2.0 Tool:

Year 4 /course IGP

5 students from REE

5 students from ENV

## Educational models

- Two semesters per year 18 credits each, number of students ranges from 12 to 30 per section.
- Frontal lecture, laboratory.
- Elearning is available (Learning management system (LMS) using black board).
- Educational model is problem based and project based learning, and problem solved learning is used in basic courses and considered advanced in my country.

## REE Program

Basic Courses Math, Physics and Chemistry

in year 2 and 3

Engineering Sciences and humanities

In year 2, 3, 4

Applied and technical elective courses

PV, Wind, Biofuels in year 3, 4, 5

Internship (summer of year 3 & 4)

Capstone courses (Graduation project)

Integrated Knowledge bounded  
by Environmental, economic  
and design constraints

Education model is credit system and based on student centered [back](#)