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	DIVISION ADVISORY		Name of Office: OSDS-SDS

DIVISION ADVISORY
No. 73 S. 2019

To: Heads of Public Elementary and Secondary/Integrated School
From: Office of the Schools Division Superintendent
Subject: Young Scientist Investigatory and Young Engineers' Innovation and Robotics Challenge 2019
Date: March 8, 2019

This is to inform all the concerned about the Young Engineers' Innovation and Robotics Challenge 2019 on March 11-12 & 15, 2019 at AUF Sports and Cultural Center and AUF Santa Barbara Campus.

Attached are the General Rules and Mechanics and Entry Form for reference and information.


LEILANI SAMSON CUNANAN, CESO VI
 Schools Division Superintendent 

mjm/aavi/cid

CH # 2019-073

Young Engineers' Innovation and Robotics Challenge 2019

Junior High School/Senior High School Division

Entry Programming and Engineering Skills: Zero to Basic

Boot Camp: February 28-March 1, 2019 at the Santa Barbara Campus

Innovation and Robotics Challenge: March 12, 2019 at 1.00-5.00PM AUF Sports and Cultural Center

1. The Innovation and Robotics Challenge is open to Junior High School and Senior High School students who are enthusiasts of science and technology, particularly ICT and Robotics duly endorsed as official representatives enrolled in the competing school.
2. Each school shall form a team of young engineers or programmers: A team must be a composition of JHS students. A team may have a reinforcement of only 1 SHS student (but not a requirement).
3. The Challenge will be limited to designing/assembling circuits using the Arduino kits provided by the organizer.
4. The participating school must register on or before February 27, 2019 to confirm its participation.
5. The representatives of the school must sign up for the Arduino boot camp to learn basic programming and robotics for two consecutive sessions: Batch 1: February 28, 2019 8.00-12:00 PM and March 1, 8.00-12.00 PM; and Batch 2: February 28, 2019 1.00-5.00 PM and March 1, 2019 1.00-5.00 PM.
6. During the actual challenge or competition, each team will be given a set of Arduino kit comprised of a microcontroller, breadboard, connecting wires, LEDs, ultrasonic sensor, buzzer, and ruler and a laptop for programming the Arduino.
7. Using the Arduino kits, teams must design/assemble a circuit based on the challenge given. Teams that accomplish their given challenges and tasks based on specific requirements of time, precision, and contexts will advance to the next challenge.
8. A team accumulates points as it advances to the next level challenge. Points are awarded as 50 points for correct sequence, 25 points for wrong sequence, 0 points for no output.
9. Each team shall be given a maximum of three (3) trials per challenge. The last trial is considered as the final output.
10. Deductions may be given based on number of trials made (5 points per trial), time lapse (1 point per minute; a maximum of 5 minutes overtime may be allowed, otherwise the program is considered a failure).
11. Winners are declared based on the total accumulated points of the teams.
12. In case of a tie, a clincher challenge will be conducted.
13. The decision of the board of arbiters on matters raised by contestants or coaches during the challenge is final and irrevocable.

For other queries contact Mr. Dennis Infante
cel phone # 0917-308-8184

Young Scientists' Investigatory Challenge 2019

Grade School and Junior High School/Senior High School Divisions

Science Skills: Theoretical and Conceptual Knowledge and Practical Application in the Fields of Biology, Earth Science, Chemistry, and Physics

Orientation and Trial Challenge: March 1, 2019 at 2.00-5.00 PM

Challenge: **March 15, 2019 at the AUF Santa Barbara Campus 8.00AM (Grade School Division); 1:00 PM (JHS/SHS Division)**

1. The Investigatory Challenge is a learning opportunity for students to discover the application and principles of science; it is open to Grade School, Junior High School and Senior High School students who are duly endorsed as official representatives enrolled in the competing school.
2. The Investigatory Challenge is a team competition:
 - a. Grade School: A team must have 6 members who are Grades 4, 5 and 6 pupils. The team must have at least 1 member each for Grades 4 and 5.
 - b. Junior High School/Senior High School: A team must be a combination of Grades 7, 8, 9 and 10. The school may have only 1 SHS student to join the team (but not necessary); otherwise, a combination of 7, 8, 9, 10 students is required.
3. The scope of the challenge includes principles, theories and concepts in Earth Science, Biology, Chemistry and Physics and their application in scientific investigation and everyday life of the Grade School and High School curricula.
4. The Investigatory Challenge is a round robin team challenge with five stations: (1) Pure Chemistry, (2) Applied Chemistry, (3) Biology, (4) Earth Sciences, and (5) Physics. Teams will begin at an assigned station and accomplish all challenges in that station before they proceed to their next station.
5. Challenges in a particular station includes simple identification of specimens, equipment or substances; classifying given substances, performing an experiment, preparing or building an output, etc.
6. A particular challenge has specific requirements, including number of team members to accomplish the challenge, time allotment, kind of output, etc.
7. Participating schools must send their representatives on or before March 1, 2019. An orientation regarding the challenge, as well as a trial challenge game, will be conducted on March 1, 2019 at 2.00 PM, AUF Santa Barbara Campus. Contestants may or may not attend the orientation.
8. A team is given 30 points for successfully completing the challenge. Deductions of 2 points are made for every error or mismatch with the requirement or context of a particular challenge or output. A team that gets the highest total points for all challenges in all stations is declared the champion.
9. In case of a tie, a clincher challenge is given. The clincher challenge is an on-the-spot problem solving activity.
10. The decision of the board of arbiters on all matters involving the challenges and scoring is final and irrevocable.

Young Engineers' Innovation and Robotics Challenge 2019

Grade School Division

Entry Programming and Engineering Skills: Zero to Basic

Boot Camp: February 28-March 1, 2019 at the AUF Santa Barbara Campus

Innovation and Robotics Challenge: March 12, 2019 at 1.00-5.00 PM AUF Sports and Cultural Center

General Rules and Mechanics

1. The Innovation and Robotics Challenge is open to Grade School pupils who are enthusiasts of science and technology, particularly ICT and Robotics duly endorsed as official representatives enrolled in the competing school.
2. Each school shall form a team of young engineers or programmers: A team must be a composition of one (1) Grade 4 pupil, one (1) Grade 5 pupil, and three (3) Grade 6 pupils.
3. The Grade School Robotics Challenge will be limited to programming robots using Lego Mindstorm kits provided by the organizer.
4. The participating school must register on or before February 27, 2019 to confirm its participation.
5. The representatives of the school must sign up for the Lego Mindstorm boot camp to learn basic programming and robotics for two consecutive sessions: Batch 1: February 28, 2019 8.00-12:00 PM and March 1, 8.00-12.00 PM; and Batch 2: February 28, 2019 1.00-5.00 PM and March 1, 2019 1.00-5.00 PM.
6. During the actual challenge or competition, each team will be given a set of Lego kit and a laptop for programming the Lego but they will be required to bring their own ruler, protractor, scissors, pencils, and writing materials.
7. Each team will be given a specific challenge to accomplish using robotics application and programming within a given time slot. Teams that accomplish their given challenges and tasks based on specific requirements of time, precision, and contexts will advance to the next challenge.
8. A team accumulates points as it advances to the next level challenge. Points are awarded as 50 points for successful completion. Each team shall be given a maximum of three (3) trials per challenge.
9. Deductions may be given based on number of trials made (5 points per trial), time lapse (1 point per minute; a maximum of 5 minutes overtime may be allowed, otherwise the program is considered a failure), and precision of the output of the program based on the requirement of the challenge (5 points).
10. Winners are declared based on the total accumulated points of the teams.
11. In case of a tie, a clincher challenge will be conducted.
12. The decision of the board of arbiters on matters raised by contestants or coaches during the challenge is final and irrevocable.

ENTRY FORM
SCIENCE AND TECHNOLOGY FAIR 2019
"Coding the Future of Scientists and Engineers Today"

NB. Please send this form through email: molina.analiza@auf.edu.ph

Name of School: _____

Official Representatives: _____

Young Engineers' Innovation and Robotics Challenge

Grade School Division		Junior High School/Senior High School Division	
Names	Grade Levels	Names	Grade Levels
Coach: _____		Coach: _____	

Preferred boot camp schedule: ☐ Batch 1 ☐ Batch 2

Young Scientists' Investigatory Challenge

Grade School Division		Junior High School/Senior High School Division	
Names	Grade Levels	Names	Grade Levels
Coach: _____		Coach: _____	

Attending the orientation/trial game: ☐ Yes ☐ No

Investigation and Innovation Exhibit

Are you sending students to the Investigation and Innovation Exhibit? If yes, kindly indicate approximate number of students: _____ Grade levels: _____

Prepared by: _____

Approved by: _____

Signature over Printed Name of Assistant
Principal/ Academic Head/ Coordinator

Signature over Printed Name of School
Principal/Head
Date: _____