The 4th Teaching & Learning Symposium

Engaging Undergraduates in RESEARCH and INQUIRY: A Scholarly Dialogue

Inter-University Robocon Robot Contest

Course Instructor/Project leader

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Project/Course Objectives

- Integrate and apply multidisciplinary knowledge to design and build complex systems
- Develop critical thinking skills and innovative ideas for problem solving
- Develop teamwork and communication skills
- Achieve the optimal goal and design by project management skill on the limited resources and time constraint
- Develop a positive approach and attitude towards lifelong learning
- Re-enforce their learning through exchanging knowledge and experience with other team members and also with other teams from different universities.

Inquiry Based Learning Activities

- Students were required to work in teams and developed their robots to compete with other university teams.
- Students were required to identify appropriate technologies, gather useful information, source suitable components, and design and build the robots.
- Students were required to test the robots on a section of the game field, rehearse the procedures of the contest and streamline the robot repair process during the competition.
- Students from different teams were encouraged to share knowledge and information.

How did you assess the effectiveness of students' learning?

Students' learning was mainly assessed by the robot design and strategies used during the competition, and reflection on the learning experience and discussion on the improvement needed for the future competition.

Experience sharing meeting organized by the competition organizer also helped students to learn from other universities.

What were the major outcomes of this project/course? Do they match with your objectives?

The robots, game strategies and streamlined repair process developed by the students are the concrete evidence to show that students have achieved the intended learning outcomes. In addition, the team spirit and friendship developed among students help them to form future learning partnership.