

Faculty member's statement of purpose for the annual review and contract renewal

1. *Past-year accomplishment*

Please provide summary of your accomplishment or undertake in terms of the following aspects.

1.1 Improvement of teaching or assessment practices, or demonstrable student learning outcomes

Course 1 - 233 408 Airline Dispatch operations

1.1.1 - Promoted Learning Outcome: Ability to execute problem solving skills through the application of creative and critical thinking and give innovative solutions to the problems which will make the students valuable and trusted asset in the aeronautical industry. At the end this course the students will be developing new ideas, better ways of doing things and help the airlines to save time and money.

1.1.2 - Teaching Approach: The students would be allowed to make a complete flight plan and use the flight simulator to fly as per the flight plan.

1.1.3 - Assessing Method: Projects were carried out by students to calculate a complete flight plan from Don Mueang International airport to various airports within Thailand and then use it to simulate a flight with the Redbird flight simulator. Then the students made a report of the project done and presented it to a panel of faculty members.

1.1.4 - Specific accomplishment: Students applied their knowledge of Meteorology, aircraft performance, navigation, weight and balance and E6B flight computer to calculate appropriate solutions for the routes chosen. They were also using the data and information available to compute the flight plan by using scientific calculations.

1.1.5 - Result of learning outcome assessment: Some of the final year students are doing internship at several airports in airline dispatch operations department as Flight Operations Officer and they are feeling good about learning this subject beforehand.

1.1.6 – Comparison with last year: This year the classes for this course was conducted offline at our college premises which enable me to understand the needs of students better and provide them with hands on training in preparing flight plan. A guest lecture was arranged on the topic 'Job Opportunities as Flight Operations Officers' which was delivered by Mr. Shlok Patil, Flight Operations Officer, Indigo airlines on 13 June 2023.

Course 2 – 233 102 Physics

1.1.7 - Promoted Learning Outcome: Analytical thinking and understanding to elaborate in academic terms the requirements of aeronautics

1.1.8 - Teaching Approach: Virtual experiments on several concepts like viscosity, to understand and to promote analytical thinking to use the concept of Physics in aeronautics were conducted in the class.

1.1.9 - Assessing Method: The students have done virtual experiments in the classroom by using the internet and made a report of it.

1.1.10 - Specific accomplishment: Students gained the knowledge of Physics and are able to apply this knowledge in aeronautics related topics.

1.1.11 - Result of learning outcome assessment: The students developed their knowledge of Physics that are required for understanding the complex concepts in aeronautics.

Course 3 – 100 404 Physics for Everyday Life

1.1.12 - Promoted Learning Outcome: Relate and apply meaningful theoretical concepts or understanding learned from courses into practice.

1.1.13 - Teaching Approach: Basic and complex topics in Physics that are used in everyday life are explained to the students through simple demonstrations of the concepts with the help of small experiments.

1.1.14 - Assessing Method: The students have done the demonstrations themselves to understand the concepts easily.

1.1.15 - Specific accomplishment: Students can apply the concepts of physics to understand the working of various instruments, appliances, machines in their day-to-day activities.

1.1.16 - Result of learning outcome assessment: The students developed their knowledge and understanding of physics concepts and used it in their everyday activities.

Course 4 – 233 308 Aeronautical Industry Innovation

1.1.17 - Promoted Learning Outcome: Develop clear understanding of the subject application in real life and its impact on organization, society and mankind.

1.1.18 - Teaching Approach: The students were taught about novel concepts of aircrafts which are aerodynamically more efficient than conventional aircrafts.

1.1.19 - Assessing Method: The students were asked to build their own conceptual design of aircrafts which are futuristic.

1.1.20 - Specific accomplishment: Students displayed their ideas by making origami planes with different ideas and innovative designs.

1.1.21 - Result of learning outcome assessment: The students developed their ability to apply latest technologies to give innovative solutions to real time problems faced in aviation field.

1.1.22 - Comparison with last year: Topics on New and trending technologies including smart airports were added to the course so that the students are exposed to latest happenings in the airports around the world.

Course 5 – 233 305 Human Factors in aviation

1.1.23 - Promoted Learning Outcome: Students will develop the ability to apply the concepts of human factors, evaluate fellow human beings, and provide effective solutions for the problems that may arise in their work environment.

1.1.24 - Teaching Approach: Virtual reality is used to create visual illusions which can occur while flying an aircraft to teach the integrity of sensory organs.

1.1.25 - Assessing Method: Some of the visual illusions caused due to night flights, uphill, downhill slope runways were simulated using the simulator and the student was able to visualize and do the necessary actions to come out of illusions.

1.1.26 - Specific accomplishment: The student has experienced the actual illusion that can occur to them while flying the aircraft in a simulated environment using the flight simulator.

1.1.27 - Result of learning outcome assessment: The students were able to predict that at some time they will be under visual illusions and learned the ways to come out of those illusions.

Course 6 – 223 304 Aviation Meteorology

1.1.28 - Promoted Learning Outcome: An understanding of the weather and climate and how to predict it based on various parameters available from the meteorological tools so as to improve the skills of students in interpreting the available information.

1.1.29 - Teaching Approach: Experiential learning - Experiments were conducted in classroom to understand the formation of different weather conditions like dew, fog and frost.

1.1.30 - Assessing Method: The students were allowed to repeat the experiment without flaws.

1.1.31 - Result of learning outcome assessment: Experiential learning helped them to understand about the weather conditions easily.

1.2 Student development per moral, ethics or professionalism

How did you promote or nurture the students to have higher morale in learning?

1.2.1 - Inspiring the students to actively participate in class activities and strategizing to develop and implement new ideas in their assignments.

How did you provide guidance and counselling to the students in the program or department to - which you belong?

1.2.2 - Guided the students to solve the problems faced during their project work and

Did you teach some concepts or skills that the students find it difficult to learn or acquire?

1.2.3 - Yes. The skills that at the check-in, gates, and other areas in the terminal side of the airport was taught using many role-play scenarios for airline business students in the course "216 209 - Airport Ground Services management".

Did the students try hard enough to learn such concepts? Is it worth your effort and time, why?

1.2.4 - The students are trying their hardest to understand tough and complex topics of Aeronautics. Some of the slow learning students must always be motivated to learn new things by repeating the topic using easy examples.

Yes, it is worthwhile to put effort in helping students acquire challenging concepts because, if they do, they will perform well in interviews for jobs and in the workplace by applying the concepts they learn at college.

1.3 Research for publication or academic service

1.3.1 - Published Research Title: Structural Optimization of Engine Nacelle Fan Cowl Door Hinge

Journal Name: Materials Today: Proceedings, Volume 92, Part 2, 2023, Pages 1200-1206 – Scopus Indexed Journal published during May 2023.

1.3.2 - Patent published on invention of "FABRICATION OF LOW COST IRRIGATION/PESTICIDE DRONE" on 11 August 2023 in Official Journal of The Patent Office, India Issue No. – 32/2023

1.4 Organization or institutional development

1.4.1 - Participated in Knowledge Management meeting and presented on topic "The Effect of Bad Weather Conditions on Controlling the Flight" which highlighted the use of the Redbird simulator that is available in our college to teach the students and make them experience controlling the flight in various bad weather conditions.

1.4.2 - Presented a Lecture on "Smart Technology" during Post orientation held on 10 Feb 2023 to improve the knowledge of the students in latest Smart Technologies that are being used in various Industries.

1.4.3 - Shared the knowledge of assessing the students with Quizizz – a platform to create and share quizzes with my colleagues so that they can also use that platform to assess their students in classroom.

1.4.4 – Writer for the components 4,5 and 6 in the Self Assessment Report – AR program.

2. Next-year personal goals or improvement plan

2.1 Teaching or assessment practices or demonstrable student learning outcomes

My objective is to provide my students with the skills and confidence they need to succeed in the major of aeronautics. I sincerely hope to give the students experience simulated industry scenarios and are able to flourish by expanding their knowledge and abilities.

2.2 Student development per moral, ethics or professionalism

To keep the students interested and their morale high in the class, I am planning to continue appreciating and acknowledging them for the ideas shared by them while solving the problems. Encouraging the students to form teams so that they can share success and build trust.

To encourage them I would be giving away reward stickers for the work completed by the students with dedication.

2.3 Research for publication or academic service

Tentative title: Additive manufacturing of aircraft components

2.4 Organization or institutional development such as team or corporation spirit

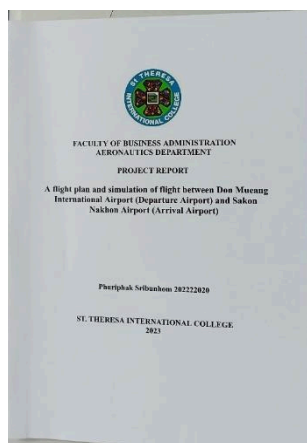
To take part and present in Knowledge management and share my ideas on teachings and assessments to my colleagues

3. Please provide (if any)reference, supplementary evidence or suggestion

1.1.3 -

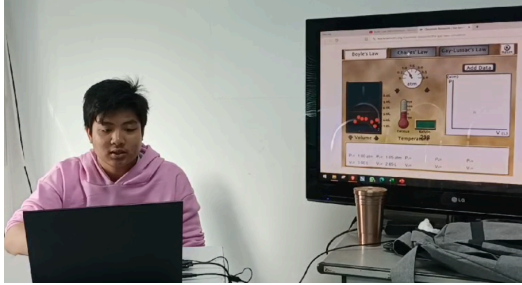


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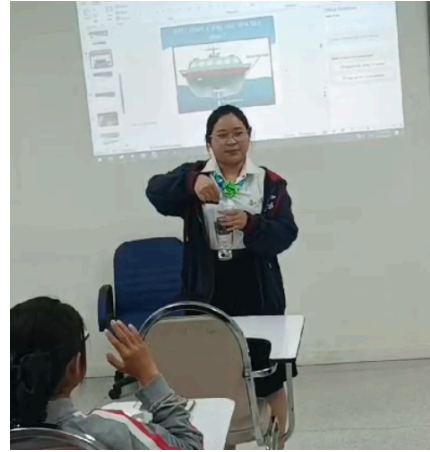


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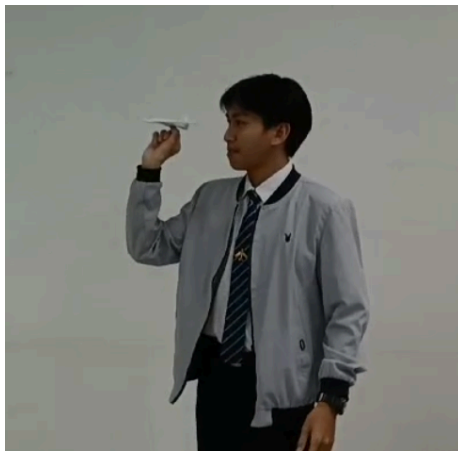




1.1.9 -



1.1.15 -



1.1.20 -



1.1.24 -



1.1.30 -



1.2.3 -



Structural optimization of engine nacelle fan cowl door hinge

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1.3.1 -

(19) INDIA

(22) Date of filing of Application : 16/07/2023

(43) Publication Date : 11/08/2023

(54) Title of the invention : FABRICATION OF LOW COST IRRIGATION/PESTICIDE DRONE

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1.3.2 -



1.4.3 -