

Interns Request for International Internship Program@FSci, KMUTT 2025

	Department	Level	Fields/Specialization	Research Topic / Reseach Area	Job Description	Campus	Special Requirement
1	Nanoscience and Nanotechnology	Undergraduate 3rd or 4th year	Physical Chemistry	The Chemical Oxidation of Ochratoxin A and Electrochemical Detection of the Reaction Product	-Physical Chemistry experiments involving measurement of absorbance and electrochemical experiments - Prepare standard solutions and buffers, and using spectrometers and potentiostats	Bangkhuntien (free shuttle bus ride from Bangmod campus)	
2	Nanoscience and Nanotechnology	graduate student	Biotechnology, Biochemistry, Microbiology, Nanoscience, Bioscience, Biomaterials, or related fields	Development of diagnostic antigen test kit for infectious disease	-Fabrication of the antigen test kit, characterization and evaluation of the test kit using the spiked antigen in biological fluid and (if possible) patient samples	Bangkhuntien (free shuttle bus ride from Bangmod campus)	Ready to learn laboratory research and have basic knowledge in microbiology and/or immunoassay
3	Mathematics	graduate student	Statistics,Probability,Data Science,or related fields	Cluster Analysis, Cluster Validity Index, Statistical Inference of Bayesian Cluster Validity Index	-Theoretical works related to mathematical statistics - Coding using R language - Develop R packages	Bangmod	-Theoretical works related to mathematical statistics - Coding using R language - Develop R packages
4	Mathematics	graduate student	Computer Science,IT, or related fields	Robotic Prosthetic Arm Prototype Controlled by Electromyography Signals and artificial intelligence	Acquire data, enhance the model, and test more comprehensive experimental results	Bangmod	
5	Mathematics	Undergraduate 3rd or 4th year	Mathematics or related fields	Academic-based board game developer	-Test games, modify mechanics of games, write a rule book of a board game and do a market research	Bangmod	-Should have experience of playing board games and have good English communication and writing skills
6	Mathematics	graduate student	Enviroment, Climate Change, Stustainability or related firds	-Ocean Atmosphere Interaction and Climate Modeling -Climate and Agriculture : Models, Impacts and Adaptation -Oil Spill Trajectory Modeling -Geographic Information System and Remote Sensing	- Climate Modeling and analysis - Crop yield prediction and agricultural modeling	Bangmod	
7	Mathematics	graduate student	Enviroment, Climate Change, Stustainability or related firds	-Oil Spill Trajectory Modeling -Geographic Information System and Remote Sensing	'-Oil spill detection and spill trajectory modeling - Mapping and spatial analysis	Bangmod	
8	Mathematics	Undergraduate 3rd or 4th year or Postgraduate (Master's) Student	Mathematics / Mathematical Finance	1.Option Pricing using Black-Scholes Model/Binomial Tree. 2.Portfolio Optimization	Study research relating to Financial Mathematics. Improving / Applying the studied research.	Bangmod	-Basic skill in coding programing. -Interested in Finaneial Mathematics
9	Mathematics	graduate student	Computer Science,IT, or related fields	Machine Learning,Data Mining,Mathematics Modeling	-Develop a study in Computer Science and write a manuscript	Bangmod	Basic Programming (Phython,C++) , Machine Learning (AI)
10	Mathematics	Undergraduate 3rd or 4th year, or graduate student	Mathematics or related fields	Analysis of Dynamical System and Applications	Study mathematical model and analyze the behavior of solutions and simulate some results	Bangmod	
11	Mathematics	Undergraduate 3rd or 4th year, or graduate student	Mathematics or related fields	Mathematics Education	Study model of teaching and learning mathematics and design lesson plans	Bangmod	
12	Mathematics	graduate student	Mathematics or related fields	Computation of the numerical solution of mathematical model	'-Write the program/code in Matlab - Show graphs in two/three dimensions	Bangmod	-Possess a foundation in mathematics -Proficient in writing computational programs or coding the Matlab

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13	Microbiology	Undergraduate 3rd or 4th year, or graduate student	Biotechnology, Biochemistry, Microbiology, or related fields	Covid-19 vaccines, Probiotics, Enzymes	Research techniques in Molecular Science and Enzyme application	Bangmod	
14	Microbiology	Undergraduate 3rd or 4th year, or graduate student	Microbiology or related fields	1.Peptide cocktail for antimicrobial activity 2.Expression of human peptide 3.Isolation of oil-degrading m.o.	Conduct laboratory research	Bangmod	
15	Chemistry	Undergraduate 3rd or 4th year, or graduate student	Chemistry or related fields	Synthesis of cavitands for drug encapsulation (Scope: Synthesis of cavitands with resorcinarene or pillararene scaffolds.)	1. Synthesis of molecules with cavities capable of accommodating small drug molecules. 2. Purification of synthesized product by flash column chromatography. 3. Characterization of the product by NMR, Mass Spectrometry.	Bangmod	Priority will be given to candidates with experience in organic synthesis
16	Chemistry	Undergraduate 3rd or 4th year, or graduate student	Chemistry or related fields	Cosmetic Science / Cosmetic Products / Natural Products	- research work in cosmetic products and natural products	Bangmod	
17	Chemistry	graduate student	Chemistry / Environmental Science/Analytical Chemistry/ other related fields	Investigating Nitrogen Removal Efficiency of the Moving Bed-Sequencing Batch Reactor (MBSBR)	Laboratory Work, Water and Wastewater Analysis	Bangmod	
18	Chemistry	Undergraduate 3rd or graduate Student	Chemistry or related fields	Heterogeneous catalysis	Prepare heterogeneous catalysts, characterize and test them for various organic reactions.	Bangmod	
19	Chemistry	Undergraduate 3rd or 4th year o	Chemistry / Environmental Science/other related fields	Fluoride removal by adsorption process	1. Determine fluoride in water. 2. Study fluoride removal using adsorbent such as activated carbon and biochar.	Bangmod	Knowledge the analysis of environmental quality
20	Physics	Undergraduate 3rd or 4th year	Physics, or related fields	Investigation of macrostate probability distributions in the Ising model	This study uses numerical methods to evaluate macrostate probability distributions considering their dependence on free energy rather than energy in the canonical ensemble. It aims to visualize the absence of ordered phases at finite temperatures in one-dimensional Ising model	Bangmod	- Experience with numerical methods is required (Python is preferred). A background in statistical physics is beneficial for understanding the theoretical foundations - Really determine to learn physics, do research and love small-group discussion. Be able to learn and investigate independently to some extent.