

Course Code	Course Name	Teorical	Practice	Laboratory	Credits	ECTS
FZK-3011	Advance Programming Languages in Physics	3.00	0.00	0.00	3.00	6.00
Course Detail						
Course Language	: Turkish					
Qualification Degree	: Bachelor					
Course Type	: Optional					
Preconditions	: Not					
Objectives of the Course	: The aim of this course is to learn the MATLAB programming code and using it in scientific studies.					
Course Contents	: Learning and using of function, script, for, if, while, switch, true, false, trigonometri, fprintf, disp ; function, Series, Matrix, complex num, abs, imag, real, ones, zeros; graph, legend, linspace, xlabel, char, string, str2num, num2str, polinoms, xlsread, xlsxwrite; symbolic, equ. solving, derivative, integral, subs, solve, roots; determination of max min values, spline cubik, interpolation, fmin, fmax; Fitting, polyfit, fmin search, noise calculation matlab functions.					
Recommended or Required Reading	: A Guide to MATLAB: For Beginners and Experienced Users; Brian R. Hunt, Ronald L Lipsman, Jonathan Rosenberg Matlab: a practical introduction to programming and problem solving; Stormy Attaway					
Planned Learning Activities and Teaching Methods	: Practice in course and homeworks					
Recommended Optional Programme Components	: Repetition of basic software knowledge is helpful					
Course Instructors	: Prof. Dr. Emre Coşkun					
Instructor's Assistants	: Assistant Dr. Çağlar PÜSKÜLLÜ					
Presentation Of Course	: Theoretical and experimental					

Course Outcomes

Upon the completion of this course a student :

1 to improve the programming skill

2 to analysis of a scientific research can be simplified after this course

3 to implement of preparing the simulation

4 to plot and comment professionally in scientific studies

5 to analyze experimental studies

Preconditions

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