Description for some courses I have taken

At my home university, the titles of some taught courses do not exactly match their official titles. Due to bureaucratic reasons, the course title and description cannot be easily changed, and the professor will adjust the course content according to what they believe is the most useful for students. Below are the list of some computer science-related courses that are listed in my transcript and the actual content that was taught in the class.

Class Name	Unofficial Title	Description of Class
ICMA 219 Calculus of Several Variables	Applied Mathematical Analysis	• Vector analysis: algebra and geometry of vectors, vector differential and integral calculus, theorems of Green, Gauss, and Stokes; complex analysis: analytic functions, complex integrals and residues, Taylor and Laurent series. • I took this class during my exchange semester (Fall 2018) at University of Wisconsin-Madison. The corresponding course code is MATH 321.
ICMA 322 Advanced Calculus	Introduction to Real Analysis	• Real and complex number systems; functions; continuity; convergence; differentiation; integration. • Book: Understanding Analysis (2nd Ed.) by Stephen Abbott.
ICMA 346 Optimisation	Introduction to Optimisation	• Linear programming; duality; network flow problems; convex programming; non convex and combinatorial models • I took this class during my exchange semester (Fall 2018) at University of Wisconsin-Madison. This is a website (taught by a different professor) with the class contents: https://laurentlessard.com/teaching/524-intro-to-optimization/
ICCS 207 Introduction to File Processing	Introduction to Computer Systems	• Working in Linux environment; C programming; data representation; memory organisation and management

Class Name	Unofficial Title	Description of Class
ICCS 313 Introduction to Algorithms	Introduction to Algorithms	• Asymptotic algorithm analysis; algorithm selection strategies; algorithms of well-defined problems in computer science; recognizing strength and weakness of algorithms; distributed algorithms; introduction to P and NP classes of problems. • Book: Introduction to Algorithms (CLRS)
ICCS 330 Object-Oriented Design and Methodology	OOC and Design Patterns	
ICCS 481 Special Topics in Computer Science II	Contemporary Algorithms	• Suffix trees; max-flow/min-cut; balanced trees; dimensionality reduction; I/O efficient algorithms; convex optimisation; LPs; hashing; nearest neighbours; parallel algorithms. • Course website: https://cs.muic.mahidol.ac.th/courses/calgo/
ICCS 482 Professional Practices on Database Management	Introduction to Deep Learning	• Image classification; HMM; reinforcement learning; generative learning; semi-supervised learning; active learning; computational learning theory.
ICPY 221 Computer Programming for Physics	Introduction to Programming	• Fundamental principles of computer programs; basic programming constructs (condition, iteration, functions); problem formulation; and introduction to object-oriented programming. • The course is shared with Computer Science majors.
ICPY 334 Numerical Methods For Physics	Numerical Methods	• Taylor series; root finding; differentiation and integration; systems of linear equations; gradient descent; differential equations; Monte Carlo method. • The course is shared with Computer Science majors.