

السنة الدراسية الثانية / الفصل الدراسي الثاني						
الوحدات المعتمدة	الاضافي	العملي	المحاضرات النظرية	رمز المقرر	نوع المقرر	اسم المقرر
٣	---	٣	٢	COMP٢٩٧	متطلبات قسم	هياكل بيانات

- Introduction to Data Structure
 - Primitive data types
 - Expressions
 - Type conversion
- Flowchart
- Recursion Function
- Abstract Data Type
 - Bag Structure
 - Queue Structure
 - Circular Queue
 - Stack Structure
- Stack applications
 - Converting infix expression to Suffix
- Sorting Methods
 - Selection sort (Calculate best, average, and worst time)
 - Insertion Sort (Calculate best, average, and worst time)
 - Shell sort (Calculate best, average, and worst time)
 - Quick methods (Calculate best, average, and worst time)
 - Radix Sort (Calculate best, average, and worst time)

Essential book

- [Algorithms, Fourth Edition](#) / Robert Sedgewick and Kevin Wayne, Princeton University, Addison-Wesley 2011

Supporting Books

- [Data Structures and Algorithms in Java™](#), Sixth Edition, Michael T. Goodrich, Roberto Tamassia, and Michael H. Goldwasser, Wiley, 2014