**Ankara Üniversitesi  
Kütüphane ve Dokümantasyon Daire Başkanlığı**

**Açık Ders Malzemeleri**

Ders izlence Formu

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| Dersin Kodu ve İsmi | **COM102-B** |
| Dersin Sorumlusu | Dr. Öğretim Üyesi Hacer YALIM KELEŞ |
| Dersin Düzeyi | Lisans |
| Dersin Kredisi | Ulusal Kredi:5  AKTS Kredi: 9 |
| Dersin Türü | Zorunlu |
| Dersin İçeriği | Introduction to C++; Types and Declerations, Expressions & Statements;Pointers, Arrays and Structures; Functions; Classes; Classes, Classes, Operator Overloading (Copying objects, assignment vs copy constructors, class objects as members, operator functions); Classes, Operator Overloading (binary and unary operators, operators and user defined types, operators in namespaces, friend functions/classes); Derived Classes (has a/is a relation, inheritance types, class hierachies); Derived Classes (virtual functions, abstract classes, polymorphism); Class Hierarchies (Multiple inheritance, ambiguity resolution, replicated base classes); Class Hierarchies (Virtual base classes, multiple inheritance and access control, run-time type information); Templates (Function templates, instantiation, template classes); Exception Handling (assert library, try/catch expressions); STL Library (container classes: vectors, list, set, map, multiset, multimap, STL algorithms, iterators). |
| Dersin Amacı | The objective of this course is to focus on language features supporting data abstraction, object oriented programming and generic programming through C++ programming language. In the first part of this course students study the subset of C++ that supports the styles of programming traditionally done in C. It covers fundamental types, expressions and control structures for C++. Modularity is discussed, as supported by namespaces and source files. In the second part, C++ facilities for defining and using new types are introduced. Concrete and abstract types (classes), together with operator overloading, polymorphism and the use of class hierarchies. Then, templates are teached for defining families of types and functions. Moreover, students also work on exception handling, standard library and input/output mechanisms supported by C++. |
| Dersin Süresi | Teorik: 4 saat/hafta,  Uygulama: 2 saat/hafta |
| Eğitim Dili | İngilizce |
| Ön Koşul | Yok |
| Önerilen Kaynaklar | “The C++ Programming Language (Third Edition or Special Edition)”, Bjarne Stroustrup, Addison-Wesley, ISBN 0-201-88954-4 and 0-201-70073-5. |
| Dersin Kredisi | Ulusal Kredi:5  AKTS Kredi: 9 |
| Laboratuvar | 2 saat/hafta |
| Diğer-1 |  |