

# Introduction

Go is a great language for CS majors. This page presents some university courses that use Go. For a list of free and commercial Go training classes, see [the Learn wiki](#).

## Language

- University of Helsinki, Department of Computer Science used to have a course named Introduction to Go, taught by K. Bäckman: <http://www.cs.helsinki.fi/courses/582336> in Spring 2010.
- University of Sofia "St. Kliment Ohridski", Faculty of Mathematics and Informatics has elective course named "Programming with Go", taught by K. Vladimiroff: <http://fmi.golang.bg> (bulgarian) and their [\[public lectures\]](#) - (also in bulgarian)
- Free University of Berlin (Germany) had a course [Introduction to Go Programming](#) in Spring 2013.
- J.W. Goethe University (Frankfurt/Main, Germany) had a course [Introduction to Go Programming](#) in Spring 2015 (in german)
- University of Pennsylvania had a course on [Go Programming](#) in Spring 2017.
- SUNY Potsdam (Potsdam, NY) "Selected languages course with Go", taught by Dr. Brian C. Ladd (Associate Professor of Computer Science). First class in Spring 2017
- University of Milan has a course named "Computer Programming" taught by Paolo Boldi: <http://boldi.di.unimi.it/Corsi/Inf2018/>

## Programming Concepts

- President University (Cikarang, West Java, Indonesia) had a course [Programming Concepts](#) for every junior students (using C, Go and Javascript).

## Web

- CS 4830: Science and Engineering of the WWW taught by Ryanne Dolan at University of Missouri: <http://4830.ryannedolan.info/>
- CSCI 130: Web Programming taught by [Todd McLeod](#) at California State University Fresno
- CSCI 194: Adv. Web Programming taught by [Todd McLeod](#) at California State University Fresno
- CIT 90: Data Drive Websites taught by [Todd McLeod](#) at Fresno City College
- CIT 94: Server Side Scripting taught by [Todd McLeod](#) at Fresno City College

## Concurrency

- Go is being used at the end of a yearlong freshman computer science class at KTH: <http://yourbasic.org/golang/concurrent-programming/>
- Go, Concurrent and Systems Programming from Rochester Institute of Technology: <http://www.cs.rit.edu/~ats/go-2011-2/index.xml>
- Free University of Berlin (Germany) had a course on [Concurrent Programming](#) with Go as a reference language in 2013.
- University of Duisburg-Essen (Germany) had a lecture about Go and CSP within their course on [Concurrent systems modelling](#) in summer 2014. [\[Slides\]](#)

- University of Stavanger, Norway. We use Go to teach concurrency principles in DAT320 Operating Systems. [http://www.uis.no/studies/study-courses/?code=DAT320\\_1&parentcat=9835](http://www.uis.no/studies/study-courses/?code=DAT320_1&parentcat=9835)
- University of Tromsø, Norway. [Concurrent and Data-Intensive Programming \(INF-2200\)](#).
- University of Victoria (Canada) used Go in the section on Concurrency as a part of [Programming Languages \(CSC 330\)](#).

## Distributed Computing

- Distributed Computer Systems (CS 138) at Brown: <http://cs.brown.edu/courses/cs138/s16/syllabus.html>
- Distributed Systems course (COS 418) at Princeton: <https://www.cs.princeton.edu/courses/archive/fall16/cos418/>
- Distributed Systems course (15-440) at CMU: <http://www.cs.cmu.edu/~dga/15-440/F12/index.html> (see also <http://da-data.blogspot.se/2013/02/teaching-distributed-systems-in-go.html>)
- 6.824 Distributed Systems at MIT is using Go in its labs: <http://pdos.csail.mit.edu/6.824/>.
- CSE 223B, Spring 2014: Distributed Computing and Systems at UC San Diego <http://cseweb.ucsd.edu/classes/sp14/cse223B-a/index.html>
- Dixie State University teaches Go in an introductory course to programming languages and later on in distributed systems.
- CS 352, Computer Organization and Design, at the University of Wisconsin, Eau Claire: [http://cs.uwec.edu/~bui/pj/teaching/cs.352.f13/lab\\_01\\_high\\_performance\\_computing.html](http://cs.uwec.edu/~bui/pj/teaching/cs.352.f13/lab_01_high_performance_computing.html)
- KTH Stockholm uses Go to teach concurrency: DD1396 Parallel and Concurrent Programming. <https://www.kth.se/student/kurser/kurs/DD1396>
- Norwegian University of Science and Technology: TTK4145 Real-Time Programming <http://www.itk.ntnu.no/fag/TTK4145/information/>
- University of Stavanger, Norway. We use Go to build a replicated state machine based on Paxos in DAT520 Distributed Systems. [http://www.uis.no/studies/study-courses/?code=DAT520\\_1&parentcat=9835](http://www.uis.no/studies/study-courses/?code=DAT520_1&parentcat=9835)
- Moscow State University, Russia. Go is used in graduate course on "Selected Topics in Distributed Systems Engineering"
- D7024E - Mobile and Distributed Computing Systems at Luleå University of Technology. Go is used to implement the DHT algorithm Chord and create a data replication system. <http://www.ltu.se/edu/course/D70/D7024E/D7024E-Mobila-och-distribuerade-datorsystem-1.67844?l=en&kursView=kursplan>
- University of Tromsø, Norway. [Distributed Systems Fundamentals \(INF-3200\)](#) and [Advanced Distributed Systems \(INF-3203\)](#).

## Networking

- Computer Networking (COS 461) at Princeton: <http://www.cs.princeton.edu/courses/archive/spring16/cos461/> (See Assignment 1

<https://github.com/PrincetonUniversity/COS461-Spring2016/tree/master/notebook/assignment1> and Assignment 4 <http://www.cs.princeton.edu/courses/archive/spring16/cos461/assignments/>.

## Compiler Design

- Compiler Design (CS712/CS812) at the University of New Hampshire: <http://www.cs.unh.edu/~cs712/>. In Fall 2016 we are compiling a subset of Go to LLVM code.
- Introduction to Compilers (6197, Spanish) at Rey Juan Carlos University of Madrid: <http://lsub.org/comp>. Students write a compiler in Go that implements a language for drawing graphics.

## Security

- [Practical Cryptography Course](#) at Qvault. A code-in-the-browser course where [cryptography](#) principles are taught in the Go language.
- [Computer Systems Security](#) (CS166) At Brown University. In particular, the final [Dropbox Project](#).