- != (Logical operator not)
  - *lecture01* p. 23
- " (Double quote)
  - *lecture01* p. 15
- #define
  - *lecture01* p. 16,18
- #include
  - *lecture01* p. 16,20
  - *lecture02* p. 7
- & (bit and)
  - *lecture01* p. 23
- & operator (address)
  - *lecture01* p. 10
  - *lecture03* p. 4,6,8
- && (Logical operator and)
  - *lecture01* p. 23
- ' (Single quote)
  - *lecture01* p. 15
- * operator (dereferencing)
  - *lecture01* p. 10
  - *lecture03* p. 7
- - (arrow) reference to structure
  - *lecture03* p. 19,20
- . (dot) reference to structure
  - *lecture03* p. 16,20
- .h File
  - *lecture01* p. 16
- 2-3-4 Tree
  - *lecture06* p. 20
- \0
  - *lecture01* p. 14,15
  - *lecture02* p. 10-12
- \n
  - *lecture02* p. 10
- ((Curly brackets)
  - *lecture01* p. 22
- I (bit or)
  - *lecture01* p. 23
- II (Logical operator or)
  - *lecture01* p. 23

A

- Address
  - *lecture01* p. 8-10,12,13
- Address of variable
  - *lecture03* p. 4
- Adelson-Velsky, Georgy
  - *lecture06* p. 17
- Algorithm
  - *lecture01* p. 12
- Alignment of structures
  - *lecture03* p. 18
- And (logical operator)
  - *lecture01* p. 23
- Angle brackets vs double quotes for header files
  - *lecture02* p. 7
- Architecture
  - *lecture01* p. 10
- **`argc`**
  - *lecture02* p. 2
  - *lecture03* p. 14,15
  - *lecture03* p. 13
- **`argv[]`**
  - *lecture02* p. 2
  - *lecture03* p. 13-15
- Array
  - *lecture01* p. 10,12-14
  - *lecture03* p. 6
  - *lecture05* p. 17-21
  - *lecture06* p. 1,9,10
- Array in C and in Java
  - *lecture03* p. 12
- Array of strings
  - *lecture03* p. 12,13
- Array of structures
  - *lecture03* p. 16
- Array vs pointer
  - *lecture03* p. 6,8,9,12
- Array – multidimensional
  - *lecture03* p. 13
- Array: returned by a function
  - *lecture04* p. 11-13
- Array:Pointer
  - *lecture05* p. 2
- Arrow reference to structure field

lecture03 p. 19,20
ASCII
lecture01 p. 9
ASCII table
lecture01 p. 22
assert
lecture02 p. 4
Assigning address to pointer
lecture03 p. 6
Assignment
lecture01 p. 22,23
lecture02 p. 2
atof()
lecture03 p. 1
atoi()
lecture03 p. 1
atol()
lecture03 p. 1
AVL tree
lecture06 p. 17-19

B

B-Tree
lecture06 p. 20-23
lecture07 p. 2
Balanced tree
lecture06 p. 17-19
Bell Labs
lecture01 p. 6
Bell labs
lecture01 p. 7
Berkeley Software Distribution (BSD)
lecture07 p. 2
Binary file
lecture04 p. 2
Binary search
lecture06 p. 9,10,13,14
Binary tree
lecture06 p. 14-17
Bit
lecture01 p. 8
Bit operators
lecture01 p. 23
Block
lecture01 p. 22
Block of instructions
lecture01 p. 15
Boolean
lecture01 p. 10,11,21
Box-Müller
lecture03 p. 3
break
lecture01 p. 24
BSD (Berkeley Software Distribution)
lecture07 p. 2
Built-in functions
lecture02 p. 5,8
Byte
lecture01 p. 8

C

C environment
lecture01 p. 7
C program structure
lecture01 p. 18
C standard library
lecture02 p. 8
C vs Java
lecture01 p. 6,12-14,17,18
lecture02 p. 5
lecture03 p. 12,20
lecture04 p. 7,17
lecture05 p. 1,2,16
lecture06 p. 23
C11
lecture01 p. 7
C89
lecture01 p. 7
C99
lecture01 p. 7
Calling functions
lecture04 p. 8
calloc()
lecture04 p. 18
case
lecture01 p. 24

Case
lecture02 p. 11
Case insensitive comparison
lecture02 p. 13
CFLAGS
lecture04 p. 5
Changing case
lecture02 p. 11
`char`
lecture01 p. 10,11
Character classification
lecture02 p. 10,11
Character encoding
lecture01 p. 15,22
Character Encoding
lecture02 p. 17
Character encoding
lecture02 p. 15-18
Chinese characters
lecture02 p. 14,16,17
CJK
lecture02 p. 15
Classification of characters
lecture02 p. 10,11
Code
lecture01 p. 8
`codepoint`
lecture02 p. 15
lecture02 p. 15
Collections
lecture05 p. 16
Command-line parameters
lecture02 p. 2
lecture03 p. 13-15
Comparison of Data structures
lecture07 p. 3-5
Comparison of strings
lecture02 p. 12,13
Comparison operators
lecture01 p. 22,23
lecture02 p. 2
Compiler
lecture01 p. 16,17,19,20
Compiling a C program
lecture01 p. 17
Compiling on Linux
lecture01 p. 17
Condition
lecture01 p. 21
Constants
lecture01 p. 16,18
Course expectations
lecture01 p. 2
Course notes
lecture01 p. 3
Course Organization
lecture01 p. 6
Course schedule
lecture01 p. 1
Craftsmanship
lecture01 p. 5
Cryptography
lecture06 p. 12
`ctime()`
lecture03 p. 2,3,21
`ctype.h`
lecture02 p. 10
lecture02 p. 11
Curly brackets
lecture01 p. 15,22
Cygwin
lecture01 p. 2

D

Data
lecture01 p. 8
lecture05 p. 16,17
Data structure
lecture05 p. 17
Data structure functions
lecture06 p. 23
lecture07 p. 2,3
Data structures
lecture05 p. 16,17,21,22
lecture06 p. 1-13
lecture07 p. 4,5
Data structures comparison
lecture07 p. 3-5

Data types
lecture01 p. 10-12
Database
lecture06 p. 20,23
lecture07 p. 5
Declaration
lecture05 p. 1
Declaration of pointer
lecture03 p. 5,6
Declaration of variable
lecture01 p. 9
Degenarated binary tree
lecture06 p. 17
Deleting a file
lecture04 p. 2
Dereferencing
lecture03 p. 7,8,19,20
Direct access
lecture04 p. 2
Directory operations
lecture04 p. 3
`dirent.h`
lecture04 p. 3
Distribution
lecture03 p. 3
`do ... while`
lecture02 p. 1
Dot reference to structure field
lecture03 p. 16,20
`double`
lecture01 p. 12
Double quote
lecture01 p. 15
Double quotes vs angle brackets for header files
lecture02 p. 7
Doubly linked list
lecture06 p. 8
Dumping a binary file
lecture04 p. 3
Dynamic data structures
lecture07 p. 5
Dynamic memory
lecture04 p. 16-18
lecture05 p. 1,2,17-20
Dynamic memory example
lecture04 p. 19

E

EDP
lecture05 p. 16
Electronic Data Processing
lecture05 p. 16
`else`
lecture01 p. 21,23
`else if`
lecture01 p. 23
Encoding
lecture01 p. 9
lecture02 p. 15
End-of-string marker
lecture01 p. 14,15
`EOF`
lecture02 p. 9,10
Epoch
lecture03 p. 2
`errno`
lecture03 p. 1
`errno.h`
lecture03 p. 1
Error checking
lecture02 p. 2-4
lecture03 p. 1
Error management
lecture02 p. 4,5
Exam
lecture01 p. 3
Exam dates
lecture01 p. 3
Example of pointer usage
lecture03 p. 8
Example: day of the week when you were born
lecture03 p. 21-23
Example: linked list
lecture06 p. 4-6
Exams
lecture01 p. 2-4
Exception

lecture02 p. 4,5
Executable
lecture01 p. 16
Expectations
lecture01 p. 2
Exponent
lecture01 p. 12
Exponential distribution
lecture03 p. 3
`extern`
lecture04 p. 7
lecture04 p. 7

F

Factorial
lecture05 p. 14
`fclose()`
lecture03 p. 25
`fepf()`
lecture04 p. 1
`ferror()`
lecture04 p. 1
`fgetc()`
lecture02 p. 9
lecture04 p. 1
`fgets()`
lecture01 p. 16
lecture02 p. 10
lecture04 p. 14
fgets():Return value
lecture03 p. 1
FIFO
lecture06 p. 8
lecture07 p. 4
`FILE`
lecture03 p. 26
`FILE *`
lecture03 p. 25
Files
lecture03 p. 24-26
Final exam
lecture01 p. 3
First In First Out
lecture06 p. 8
`float`
lecture01 p. 12
`flock()`
lecture04 p. 2
Flow control
lecture01 p. 21,23,24
lecture02 p. 1
`fopen()`
lecture03 p. 25,26
`for`
lecture02 p. 1
Formatted input and output
lecture02 p. 10
`fprint()`
lecture03 p. 26
`fprintf()`
lecture02 p. 10
`fputc()`
lecture02 p. 9
lecture04 p. 1
`fputs()`
lecture02 p. 10
lecture03 p. 26
`fread()`
lecture04 p. 1
`free()`
lecture04 p. 19
lecture04 p. 18,21-23
Freeing a binary tree
lecture06 p. 16
`fseek()`
lecture04 p. 2
Function call
lecture04 p. 8-12
Function declaration
lecture02 p. 6,7
Function identification
lecture02 p. 5,6
Function nesting
lecture01 p. 15
Function pointer
lecture06 p. 23,24
Function prototype
lecture01 p. 16

lecture02 p. 7
Function: Pointers as argument
lecture04 p. 13,14
lecture05 p. 2,3
Function: returning an array
lecture04 p. 11-13
Functions
lecture04 p. 8
Functions, nesting
lecture02 p. 6
fwrite()
lecture04 p. 1

G

Garbage collector
lecture04 p. 19
gcc
lecture01 p. 17
lecture01 p. 7
gcd()
lecture04 p. 8,9
getchar()
lecture02 p. 9
getopt()
lecture03 p. 15
gets()
lecture02 p. 10
Glib
lecture07 p. 3
Global variable
lecture03 p. 1
lecture04 p. 15
gmtime()
lecture03 p. 21
Gnome
lecture07 p. 3
GNU
lecture07 p. 3
Grades
lecture01 p. 4

H

Hanoi (towers of)
lecture05 p. 15
Hash function
lecture06 p. 11,12
Hash table
lecture06 p. 11-13
lecture07 p. 2
head
lecture04 p. 3
Head of list
lecture06 p. 1
Header file
lecture01 p. 16
lecture02 p. 7
Heap
lecture01 p. 8
lecture04 p. 17
Help on functions
lecture02 p. 5
History of C
lecture01 p. 7
Hoare, Antony
lecture05 p. 6
Honesty
lecture01 p. 5

I

if
lecture01 p. 21,23
In-memory database
lecture07 p. 5
Information
lecture05 p. 16,17
Information Technology
lecture05 p. 16
Initialization of pointer
lecture03 p. 7,8
Initialization of structure
lecture03 p. 16
Input/Output
lecture02 p. 9,10
Insertion in a binary tree

lecture06 p. 15,16
`int`
lecture01 p. 11
`integer operations`
lecture01 p. 11
`isalnum()`
lecture02 p. 11
`isalpha()`
lecture02 p. 11
`isdigit()`
lecture02 p. 11
`islower()`
lecture02 p. 11
ISO
lecture02 p. 16
`isprint()`
lecture02 p. 11
`ispunct()`
lecture02 p. 11
`isspace()`
lecture02 p. 11
`isupper()`
lecture02 p. 11
IT
lecture05 p. 16

J

Java vs C
lecture01 p. 6,12-14,17,18
lecture02 p. 5
lecture03 p. 12,20
lecture04 p. 7
java vs C
lecture04 p. 17
Java vs C
lecture05 p. 1,2,16
lecture06 p. 23

K

K&R
lecture01 p. 6
Keringhan (Brian)
lecture01 p. 6

L

Lab2 hints
lecture05 p. 3-5
Labs
lecture01 p. 3,4
Landis, Evgenii
lecture06 p. 17
Last In First Out
lecture06 p. 7,8
`ld`
lecture01 p. 20
Library file
lecture04 p. 6
LIFO
lecture06 p. 7,8
lecture07 p. 4
Linked list
lecture05 p. 22
lecture06 p. 1-10,13
lecture07 p. 1
Linker
lecture01 p. 16,17,19,20
lecture04 p. 7-9
Linux
lecture01 p. 2
`localtime()`
lecture03 p. 21
Locking a file
lecture04 p. 2
Logical operators
lecture01 p. 23
`long`
lecture01 p. 11
lecture01 p. 11
Loop
lecture02 p. 1

M

`main()`
- *lecture01* p. 16

`make`
- *lecture01* p. 7
- *lecture04* p. 5,6
- *lecture04* p. 4-6

Makefile
- *lecture04* p. 5,6

`malloc()`
- *lecture04* p. 18-20
- *lecture05* p. 20

`man`
- *lecture02* p. 5

Marker (end-of-string)
- *lecture01* p. 14,15

Mathematical functions
- *lecture01* p. 19,20

Mathematical functions:Compiler
- *lecture01* p. 19

Mathematical Induction
- *lecture05* p. 10

Mathematical induction
- *lecture05* p. 8-10

Maurolico, Francisco
- *lecture05* p. 9

`MD5`
- *lecture06* p. 12

`memory`
- *lecture01* p. 8
- *lecture01* p. 8

Memory address
- *lecture01* p. 9,10

Memory leak
- *lecture04* p. 22

Method
- *lecture06* p. 24

Midcourse exam
- *lecture01* p. 3

`mktime()`
- *lecture03* p. 21

Multi-threading
- *lecture04* p. 15,16

Multidimensional array
- *lecture03* p. 13

N

Name of variable
- *lecture01* p. 9

Naming a structure
- *lecture03* p. 16,17

Nesting functions
- *lecture02* p. 6

Node
- *lecture05* p. 21,22

Non binary tree
- *lecture06* p. 20-23

Normal distribution
- *lecture03* p. 3

Not (logical operator)
- *lecture01* p. 23

`NULL`
- *lecture02* p. 10,13
- *lecture03* p. 1,7

O

Object-Oriented Programming
- *lecture06* p. 24

`od`
- *lecture04* p. 3

Or (logical operator)
- *lecture01* p. 23

Order
- *lecture05* p. 20,21
- *lecture07* p. 5

Over-engineering
- *lecture07* p. 5

Overflow
- *lecture02* p. 12

Overloading
- *lecture02* p. 5

P

Pascal, Blaise
- *lecture05* p. 9

perror()
lecture03 p. 1
Persistence
lecture07 p. 6
Pipe
lecture02 p. 9
Pivot
lecture05 p. 6-8
Pointer
lecture01 p. 10
lecture03 p. 4-8,19,20
lecture05 p. 1,2
Pointer arithmetic
lecture03 p. 10,11
Pointer on a function
lecture06 p. 23,24
Pointer on structure
lecture03 p. 19,20
Pointer to a file
lecture03 p. 25
Pointer vs array
lecture03 p. 6,8,9,12
Pointers
lecture04 p. 11,12
Pointers as arguments to a function
lecture04 p. 13,14
lecture05 p. 2,3
Pointers as parameters
lecture06 p. 2,3
pptx
lecture04 p. 3
Preprocessor
lecture01 p. 16-18,20
printf()
lecture02 p. 8,10
Priorities
lecture06 p. 8
Prototype (function)
lecture01 p. 16
lecture02 p. 7
putchar()
lecture02 p. 9
puts()
lecture02 p. 10

Q

Quality
lecture01 p. 5
Quick-sort
lecture05 p. 6-8,11-14
Quiz 1
lecture07 p. 6-8

R

Radix
lecture01 p. 12
random()
lecture03 p. 2,3
Reading ZIP or XML
lecture04 p. 3
realloc()
lecture04 p. 18
lecture05 p. 19,20
Recursion
lecture05 p. 10-15
lecture06 p. 5,6
Recursion vs loops
lecture05 p. 14
Reference
lecture03 p. 7
Reference to structure filed
lecture03 p. 16
Return value
lecture02 p. 3,4,8
Return value from main()
lecture01 p. 16
Ritchie (Dennis)
lecture01 p. 6,7
Ritchie, Dennis
lecture01 p. 6
Robustness
lecture01 p. 5
Root
lecture06 p. 14
Rounding error
lecture01 p. 12

S

`scanf()`
- *lecture01* p. 16
- *lecture02* p. 3,4,10
- *lecture04* p. 14

Schedule
- *lecture01* p. 1

Search
- *lecture06* p. 9,10
- *lecture07* p. 5

`search.h`
- *lecture07* p. 2

Self-managing list
- *lecture06* p. 8

Semi-colon
- *lecture01* p. 15

`setlocale`
- *lecture02* p. 15

`setlocale()`
- *lecture03* p. 3

`SHA1`
- *lecture06* p. 12

Shared library
- *lecture04* p. 7

`short`
- *lecture01* p. 11

`signed`
- *lecture01* p. 11,12

Single quote
- *lecture01* p. 15

`sizeof()`
- *lecture03* p. 6,13

Sorting
- *lecture05* p. 6-8,11-14,19

`sscanf()`
- *lecture01* p. 16

Stack
- *lecture01* p. 8
- *lecture04* p. 9-12

`static`
- *lecture04* p. 7,16

Static variable
- *lecture04* p. 16

`stderr`
- *lecture02* p. 9
- *lecture02* p. 9
- *lecture03* p. 1

`stdin`
- *lecture02* p. 9
- *lecture02* p. 9,10
- *lecture03* p. 24,25

`stdio.h`
- *lecture03* p. 25

`stdlib.h`
- *lecture03* p. 1
- *lecture04* p. 18

`stdout`
- *lecture02* p. 9,10
- *lecture02* p. 9,10
- *lecture03* p. 24,25

Strategy
- *lecture06* p. 7,8

`strcasecmp()`
- *lecture02* p. 13

`strcat()`
- *lecture02* p. 12

`strchr()`
- *lecture02* p. 13

`strcmp()`
- *lecture02* p. 12,13

`strcpy()`
- *lecture02* p. 12

`strdup()`
- *lecture04* p. 18
- *lecture05* p. 18

Stream
- *lecture02* p. 9

Stream redirection
- *lecture03* p. 24

`strerror()`
- *lecture03* p. 1

String
- *lecture01* p. 10,14,15

String array
- *lecture03* p. 12,13

String comparison
- *lecture02* p. 12,13

String conversion to number
lecture03 p. 1
String declaration
lecture03 p. 11
String search
lecture02 p. 13
string.h
lecture02 p. 11-13
lecture04 p. 18
Strings
lecture02 p. 11-13
lecture03 p. 1
strlen()
lecture02 p. 11
strncasecmp()
lecture02 p. 13
strncat()
lecture02 p. 12
strncmp()
lecture02 p. 12,13
strncpy()
lecture02 p. 12
strrchr()
lecture02 p. 13
strsep()
lecture02 p. 14
strstr()
lecture02 p. 13
strtod()
lecture03 p. 1
strtok()
lecture02 p. 13,14
strtol()
lecture03 p. 1
Struct
lecture03 p. 20
struct
lecture03 p. 15,17,20,23
lecture03 p. 16-20
lecture05 p. 17
struct tm
lecture03 p. 21
Structure alignment
lecture03 p. 18
Structure and pointer
lecture03 p. 19,20
Structure initialization
lecture03 p. 16
Structure naming
lecture03 p. 16,17
Structures
lecture03 p. 15-20
switch
lecture01 p. 24

T

Tail pointer
lecture06 p. 7,8
Thomson (Ken)
lecture01 p. 7
Thomson, Ken
lecture01 p. 6
Time functions
lecture03 p. 2,20,21
time()
lecture03 p. 2,21
time.h
lecture03 p. 21
lecture03 p. 2,21
timegm()
lecture03 p. 21
time_t
lecture03 p. 21
lecture03 p. 2
Tokenizing
lecture02 p. 13,14
tolower()
lecture02 p. 11
toupper()
lecture02 p. 11
Towers of Hanoi
lecture05 p. 15
Tree
lecture06 p. 13,20-23
lecture07 p. 1,2,4
typedef
lecture03 p. 17

U

Unicode	
lecture02	p. 15,17,18
`union`	
lecture03	p. 23
lecture03	p. 24
UNIX	
lecture01	p. 6
Unix	
lecture01	p. 7
Unix pipe	
lecture02	p. 9
`unlink()`	
lecture04	p. 2
`unsigned`	
lecture01	p. 11,12
UTF-16	
lecture02	p. 17
UTF-32	
lecture02	p. 17
UTF-8	
lecture02	p. 15,18

V

Variable declaration	
lecture01	p. 9
Variable name	
lecture01	p. 9
Variable number of parameters	
lecture02	p. 6
Visual Studio	
lecture01	p. 7
`void`	
lecture04	p. 13
`void*`	
lecture04	p. 18
Von Neumann (John)	
lecture01	p. 8
Von Neumann, John	
lecture04	p. 9

W

Walking a binary tree	
lecture06	p. 16
`wchar`	
lecture02	p. 14,15
`while`	
lecture02	p. 1
Wide char	
lecture02	p. 14,15

X

Xcode	
lecture01	p. 7
`XML`	
lecture04	p. 3

Z

`ZIP`	
lecture04	p. 3