### Tidsplanering ht 2017

5 hp motsvarande 3.33 veckor heltid = 9 övningar → knappt 3 övningar/vecka i snitt på heltid för nybörjare i programmering...

EXTP40 – LTH 7.5 hp på teoretiskt total 11 veckor vara EN vecka inte är studietid. I praktiken är betydligt mindre...:

Vecka	Dag	VAD	HUR
44	Tisdag	Kursstart	Möte m Karin
45	Onsdag	Projektintroduktion	Möte m alla
46	Tisdag-Onsdag	1) Grov designskiss: visar ungefärligt utseende, vad som ska finnas i menyerna etc.	Skicka via mail eller ?
47		2) Systemskiss: Beskriver programmets struktur i form av subrutiner och interna logik.	
48			
49		3) Preliminär version: Visar första implementering som visar att programmet huvudsakligen fungerar, t.ex. för visning av bilder.	
50			
51	Sönd. = 24/12	Inläsningsvecka (Josefin borta)	
52		Inläsningsvecka (3 dagar)	
1 Tenta- vecka		4) Slutversion: fullt dokumenterad kod med slutlig funktionalitet.	
2 Tenta- vecka		5) Slutrapport och muntlig redovisning.	

### Översikt Distansövningar

- 1. Introduction Introduction to Python
- 2. Built-in Types Built-in Types
- 3. Control Flow Control Flow
- 4. Basic OOP
- 5. Modules & packages Modules, packages and more Titta på
- 6. Advanced concepts Advanced concepts Iterators, Generators, Decorators and Meta-classes

  Bara Task 3
- 7. More OOP More about Object-oriented Programming
- 8. I/O and more String manipulation, I/O and more Titta på och gör Task 6
- 9. Programming Tools Programming Tools Testing, Debugging, Profiling and Documentation Titta på
- 10. Common packages Common packages for scientific calculations and visualization
- 11. Interfacing Interfacing with other languages and optimizing performance
- 12. ArcGIS integration Databases, Graphical User Interfaces and ArcGIS integration Efter behov beroende på projekt



### Gulmarkerat = GÖR - DOCK anpassa efter varje års projekt!

### 1. Introduction - Introduction to Python

Lecture 1 - Video lecture URL

Lecture 1 File

Exercise 1 - Video Lecture URL

Exercise 1 - Compulsory File

Source code for lecture 1 (updated 2012-10-21) File

Source code for exercise 1 (updated 2012-10-20) File

Data used in the course File

Book references for lecture 1 (updated 2013-01-16) File

### 2. Built-in Types - Built-in Types

Lecture 2 - Video lecture - Part 1 URL

Lecture 2 - Video Lecture - Part 2 URL

Lecture 2 File

Exercise 2 - Compulsory File

Help for exercise 2 File

Exercise 2 - Recommended extra exercises File

Source code for lecture 2 File

E02 Source code - Compulsory File

E02 Source code - Recommended File

E02 Source code - Recommended extra exercises (Solutions) File

Book references for lecture 2 (updated 2013-01-16) File

#### 3. Control Flow - Control Flow

Lecture 3 - Video Lecture - Part 1 URL

Lecture 3 - Video Lecture - Part 2 URL

Lecture 3 File

Exercise 3 - Compulsory File

Help for exercise 3 File

Exercise 3 - Recommended extra exercises File

Source code for lecture 3 File

E03 Source code - Compulsory File

E03 Source code - Recommended File

E03 Source code - Recommended extra exercises (Solutions) File

Book references for lecture 3 (updated 2013-01-16) File

### **4. Basic 00P**

**Basic Object-oriented Programming** 

Lecture 4 - Video Lecture - Part 1 URL

Lecture 4 - Video Lecture - Part 2 URL

Lecture 4 File

Exercise 4 Compulsory updated 2014-09-24 File

Help for exercise 4 File

Source code for exercise 4 - Compulsory File

Exercise 4 Recommended extra exercise File

Source code for E04 Recommended extra exercise File

Source code for lecture 4 (updated 2012-10-13) File

Book references for lecture 4 (updated 2013-01-16) File

### 5. Modules & packages - Modules, packages and more - Titta på

There are no exercises in this module but make sure to watch the video lecture and follow the reading instructions.

Lecture 5 - Video Lecture - Part 1 URL

Lecture 5 - Video Lecture - Part 2 URL

Lecture 5 File

Source code for lecture 5 (updated 2012-10-13) File

Book references for lecture 5 (updated 2013-01-16) File

## 6. Advanced concepts - Advanced concepts - Iterators, Generators, Decorators and Meta-classes Bara Task 3

Lecture 6 - Video Lecture URL

Lecture 6 File

Exercise 6 - Compulsory File

Exercise 6 - Recommended extra exercises File

Source code for lecture 6 (updated 2012-10-13) File

E06 Source code - Compulsory File

E06 Source code - Recommended File

E06 Source code - Recommended extra exercises (Solutions) File

Book references for lecture 6 (updated 2013-01-16) File

### 7. More OOP - More about Object-oriented Programming

Lecture 7 - Video Lecture - Part 1 URL

Lecture 7 - Video Lecture - Part 2 URL

Lecture 7 File

Exercise 7 (updated 2012-12-05) File

Source code for lecture 7 (updated 2012-10-15) File

Source code for exercise 7 (updated 2012-10-27) File

Book references for lecture 7 (updated 2013-01-16) File

### 8. I/O and more - String manipulation, I/O and more - Titta på och gör Task 6

Lecture 8 - Video Lecture - Part 1 URL

Lecture 8 - Video Lecture - Part 2 URL

Lecture 8 - Video Lecture - Part 3 URL

Lecture 8 File

Exercise 8 - Compulsory File

Exercise 8 - Recommended extra exercises File

Source code for lecture 8 File

Source code for exercise 8 File

E08 Source code - Recommended extra exercises (Solutions) File

Java program for gluing computations File

Book references for lecture 8 (updated 2013-01-16) File

# 9. Programming Tools - Programming Tools - Testing, Debugging, Profiling and Documentation - Titta på

N.B. You should not hand in the exercise in this module.

Lecture 9 - Video Lecture - Part 1 URL

Lecture 9 - Video Lecture - Part 2 URL

Lecture 9 (updated 2012-11-01) File

Exercise 9 (updated 2012-12-12) File

Source code for lecture 9 (updated 2012-11-01) File

Source code for exercise 9 (updated 2012-12-12) File

Sphinx material for lecture 9 (updated 2012-10-31) File

Book references for lecture 9 (updated 2013-01-16) File

## 10. Common packages - Common packages for scientific calculations and visualization

Lecture 10 - Video Lecture - Part 1 URL

Lecture 10 - Video Lecture - Part 2 URL

Lecture 10 (updated 2012-12-21) File

Exercise 10 - Compulsory File

Exercise 10 - Recommended extra exercises File

Source code for lecture 10 File

E10 Source code - Recommended extra exercises File

E10 Source code - Recommended extra exercises (Solutions) File

Veusz scripts File

Book references for lecture 10 (updated 2013-01-16) File

### 11. Interfacing - Interfacing with other languages and optimizing performance

N.B. This whole module is optional, including the exercise.

Lecture 11 - Video Lecture - Part 1 URL

Lecture 11 - Video Lecture - Part 2 URL

Lecture 11 - Video Lecture - Part 3 URL

Lecture 11 (updated 2012-11-12) File

Installation instructions for this module File

Exercise 11 - optional (updated 2012-10-29) File

Source code for lecture 11 (Eclipse) (updated 2012-11-12) File

Source code for lecture 11 (External) (updated 2012-11-07) File

Source code for exercise 11 File

Book references for lecture 11 (updated 2013-01-16) File

## 12. ArcGIS integration - Databases, Graphical User Interfaces and ArcGIS integration Efter behov beroende på projekt

Lecture 12 - Video Lecture - Part 1 URL

Lecture 12 - Video Lecture - Part 2 URL

Lecture 12 - Video Lecture - Part 3 URL

Lecture 12 - Video Lecture - Extra material (optional) URL

Lecture 12 (updated 2012-11-17) File

Lecture 12 - Extra material (updated 2012-11-24) File

Exercise 12 - Compulsory File

Source code for lecture 12 (updated 2012-11-24) File

Book references for lecture 12 (updated 2013-01-16)