



# CS Curriculum & Career

Academic Advising

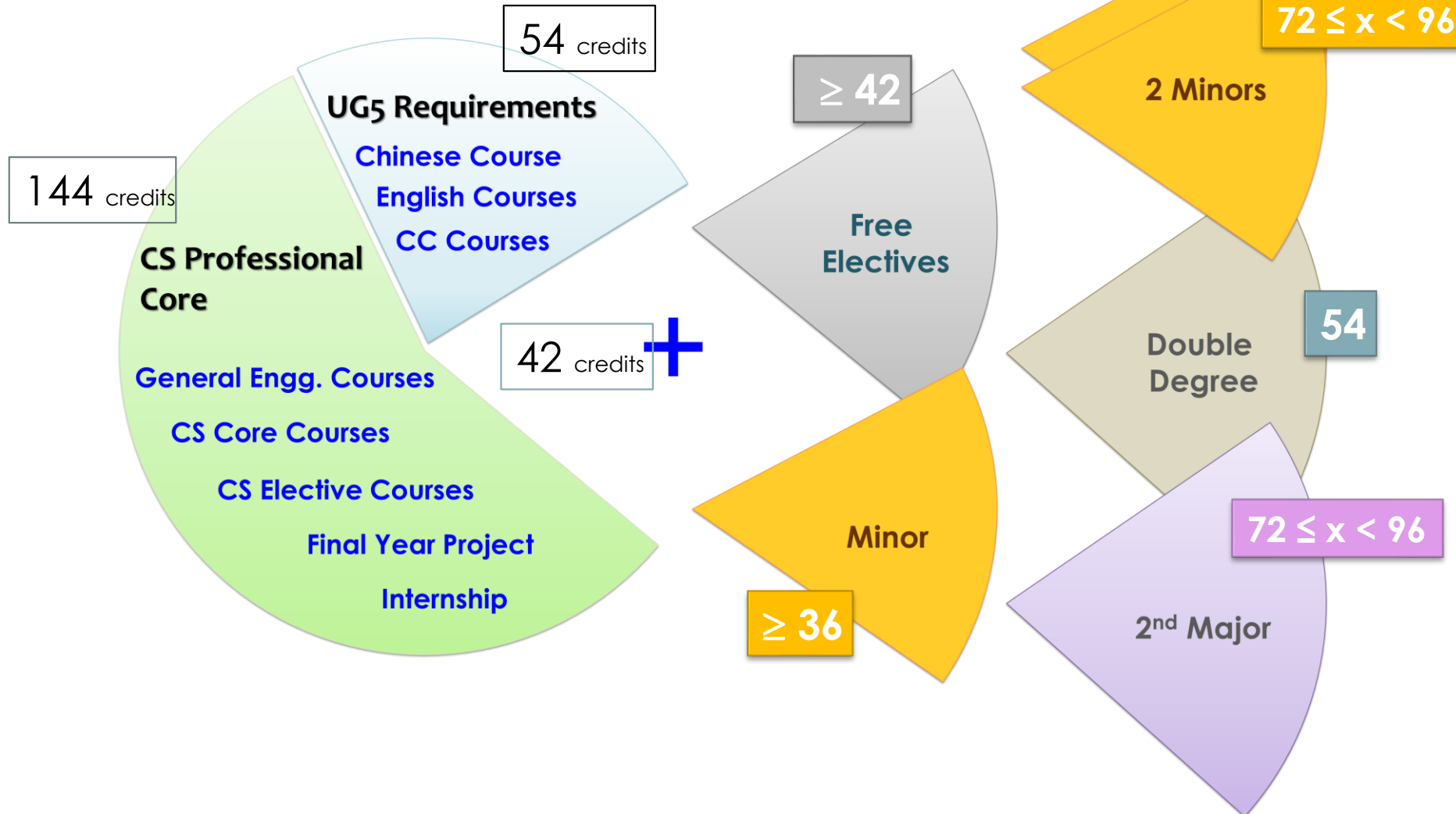
DR. ANTHONY TAM  
ACADEMIC ADVISOR  
DEPARTMENT OF COMPUTER SCIENCE

# Agenda



- ◉ Curriculum Structure
- ◉ Elective Space
- ◉ Major / Minor
- ◉ Elective Courses
- ◉ Career

# Programme Structure



## Flexibility

BEng(CompSc)

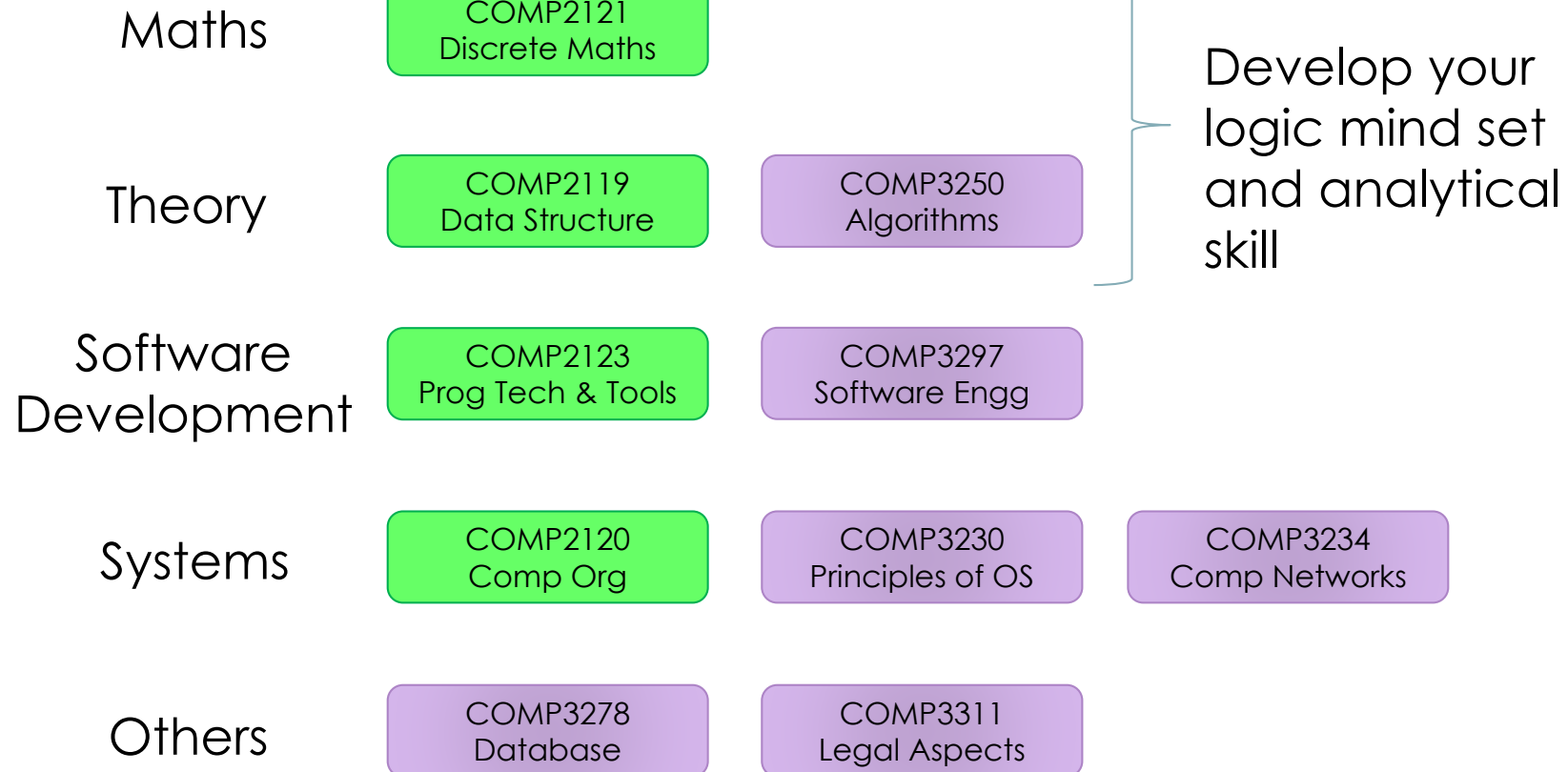
BEng(CompSc)  
+ minor

BEng(CompSc)  
+ 2 minors

BEng(CompSc)  
+ BBA

BEng(CompSc)  
+ 2nd major

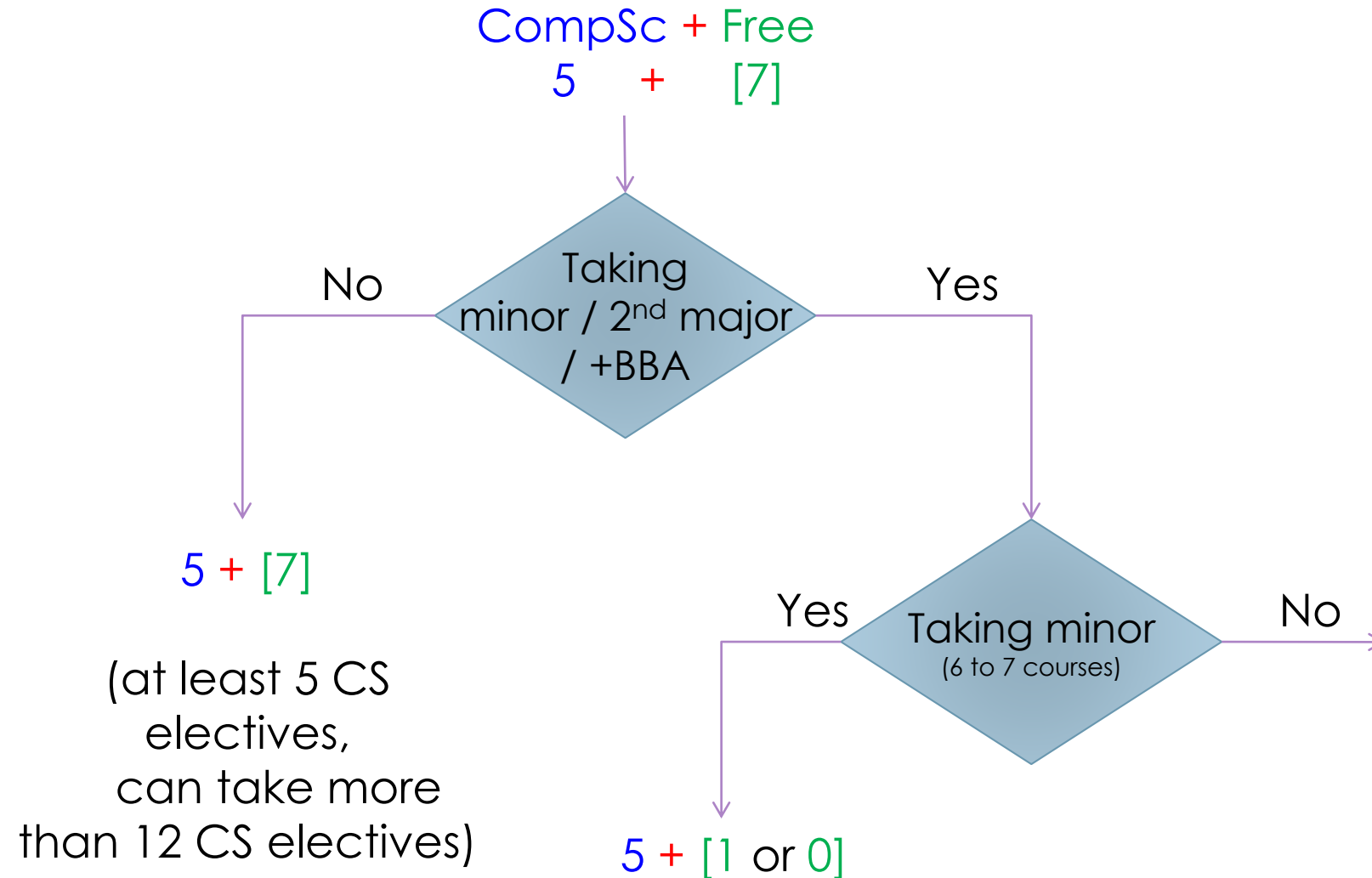
# CS Core



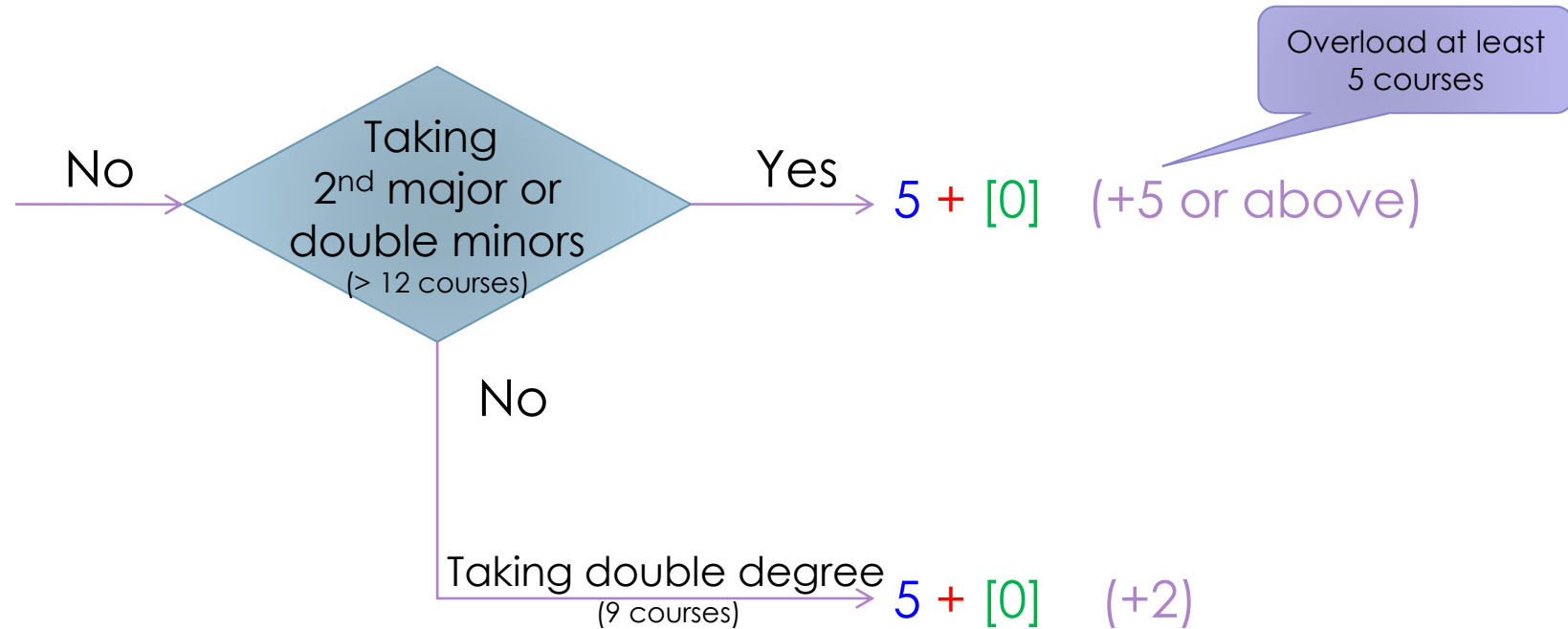
Year 2

Year 3

# Elective Space



# Elective Space



Regulations for First Degree Curricula –

UG5 note 5 - Candidates registered for double degree studies are required to successfully complete 24 credits of courses in the Common Core Curriculum, selecting one course from each Area of Inquiry, within the curriculum of the first degree, as appropriate.

# Major / Minor



- ◉ Numerous choices
  - ◉ <http://aao.hku.hk/fy4/plan-of-study/major-and-minor/>
- ◉ In principle, no need to apply for
- ◉ May have admission prerequisite/study restriction
- ◉ Download and study the syllabus of the Major or Minor
  - ◉ Understand the syllabus
    - ◉ How many core courses? When are they being offered?
  - ◉ Observe the pre-requisite requirements and restrictions
  - ◉ Beware of the timetable issue
- ◉ Recommend to consult corresponding Temporary Advisor(s) of the offering department/faculty before making your course selection

# Sample Study Plans



- ◉ URL of the Advising Page
  - ◉ <http://www.cs.hku.hk/programme/beng-cs/advising/advising.jsp>

The samples serve as illustrative purpose. Beware of the prerequisite and time-tabling issues. Students who opt for a 2<sup>nd</sup> Major or Minor are responsible for planning for their own course of studies.



# FAQs Related to 2nd Major / Minors

- ◉ When should I start taking courses?
  - ◉ Taking a 2nd Major or double minors:  
better start taking courses at 1<sup>st</sup> year
  - ◉ For Minor, can start at 2<sup>nd</sup> year
- ◉ When do I have to register for the option?
  - ◉ If you opt for Major / Minor(s), you can declare it after completion of the first year
    - ◉ during the course enrollment and add/drop periods of 2018 summer (August-September)
- ◉ Can I change from a Major to a Minor?
  - ◉ In principle, yes
  - ◉ Most of the Introductory courses for the Major and Minor are similar or the same.
  - ◉ You can make changes to the declaration of Minor or Major during the Course enrollment and ADD/DROP period

# FAQs Related to 2nd Major

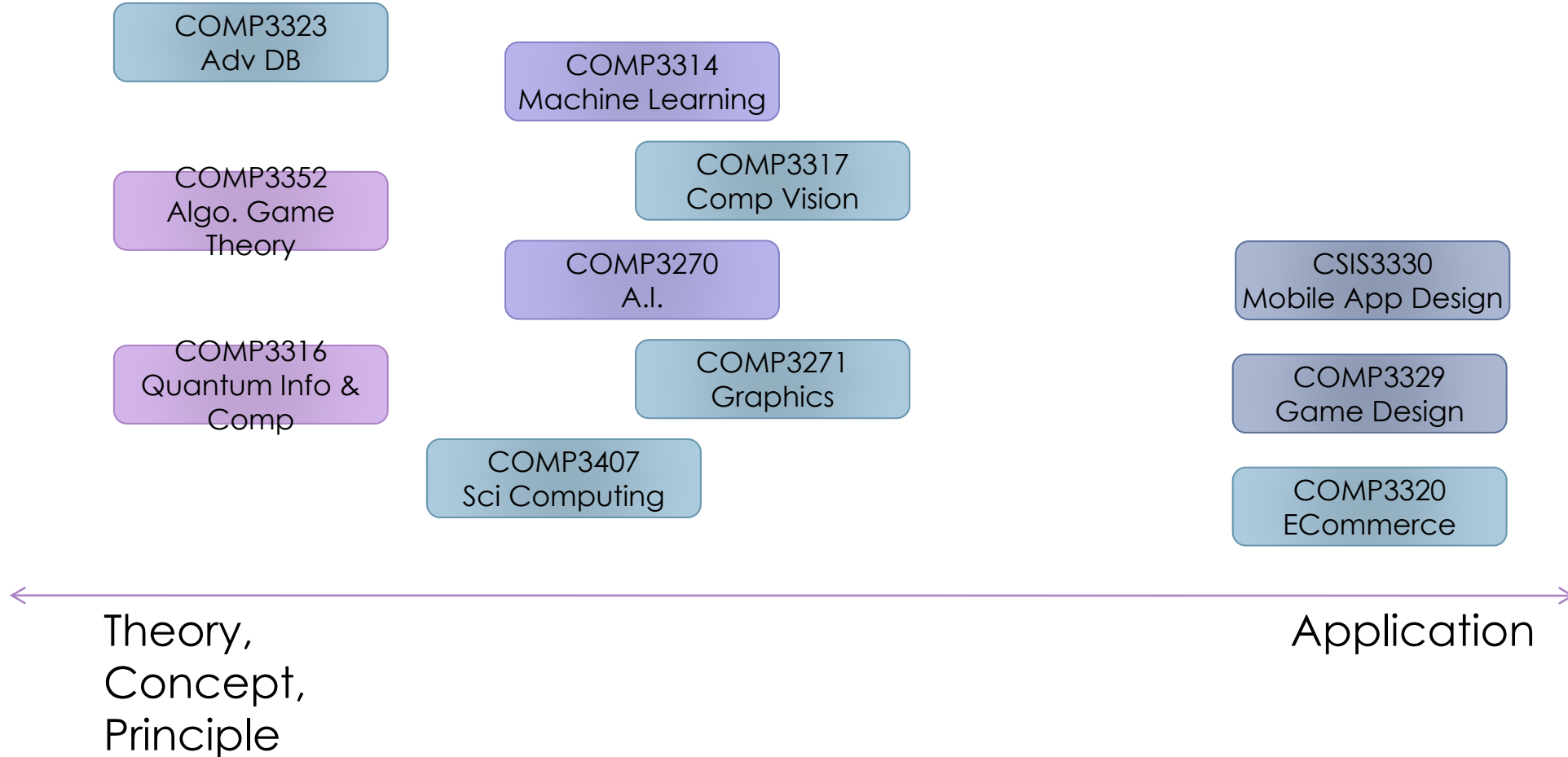
- ◉ Can I take a Science 2<sup>nd</sup> major?
- ◉ Can I take the Quantitative Finance major?
  - ◉ Strictly speaking, you cannot take any 2<sup>nd</sup> major with a credit loading of 96 credits
  - ◉ Because the total credit loading is larger than the maximum allowable loading for a 4-year curriculum
  - ◉ e.g., BEng(CompSc) + Math 2<sup>nd</sup> major requires  $240 + 96 - 42 = 294$
  - ◉ The maximum allowable loading for BEng is 288 credits

# CS Elective Courses

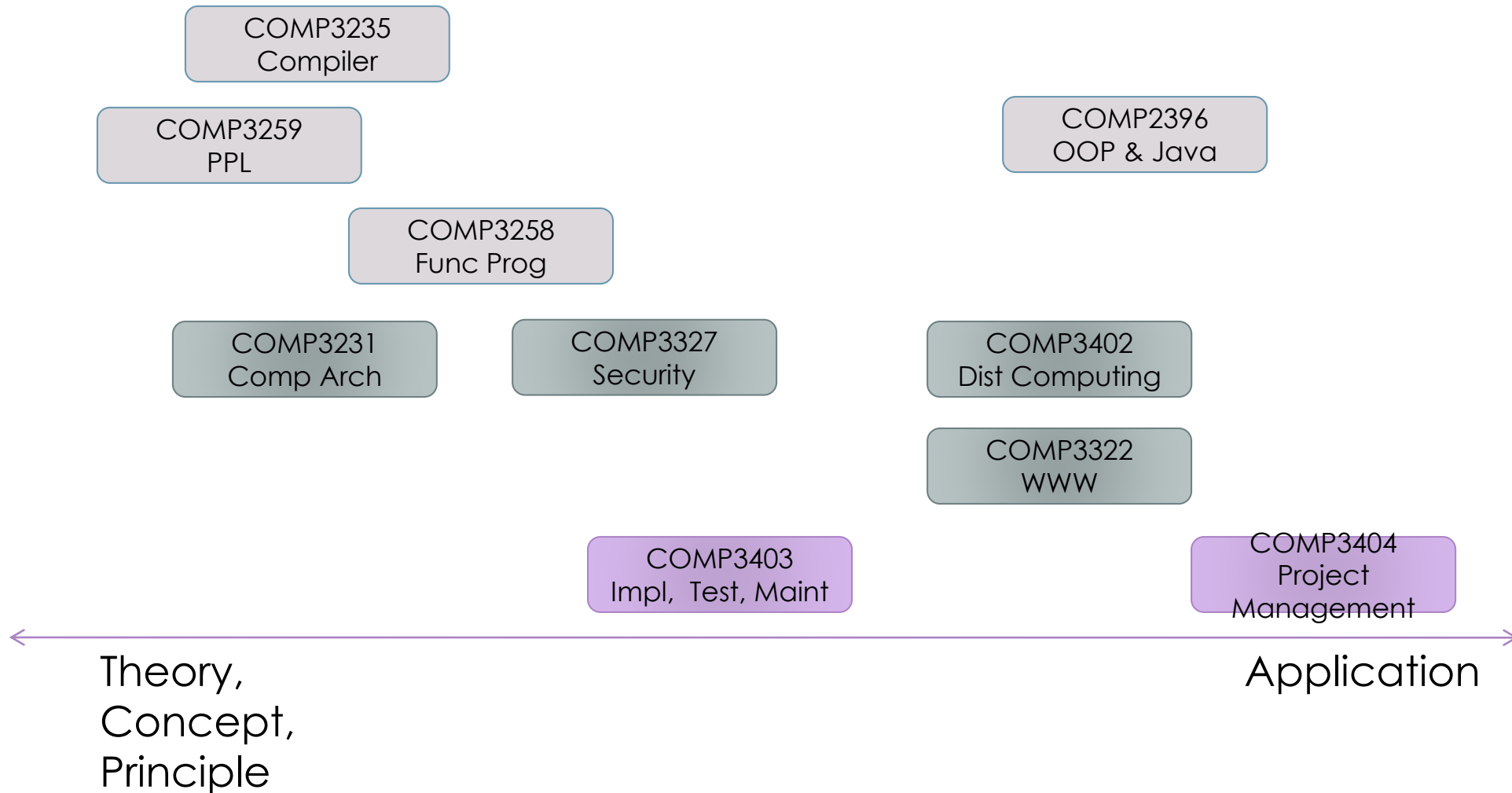


- ◉ Total 23 courses in the list
- ◉ Around 16 courses are offered in each year

# Elective Courses

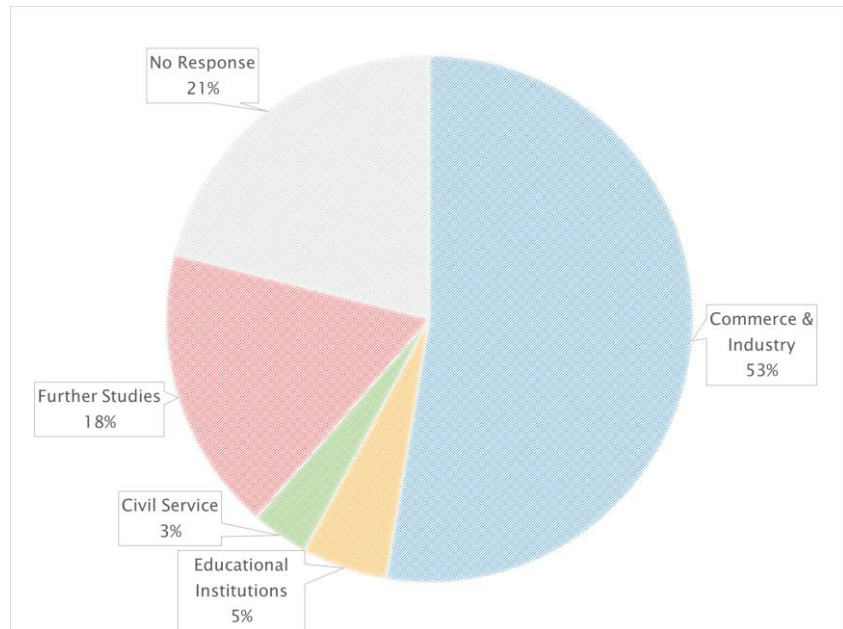


# Elective Courses

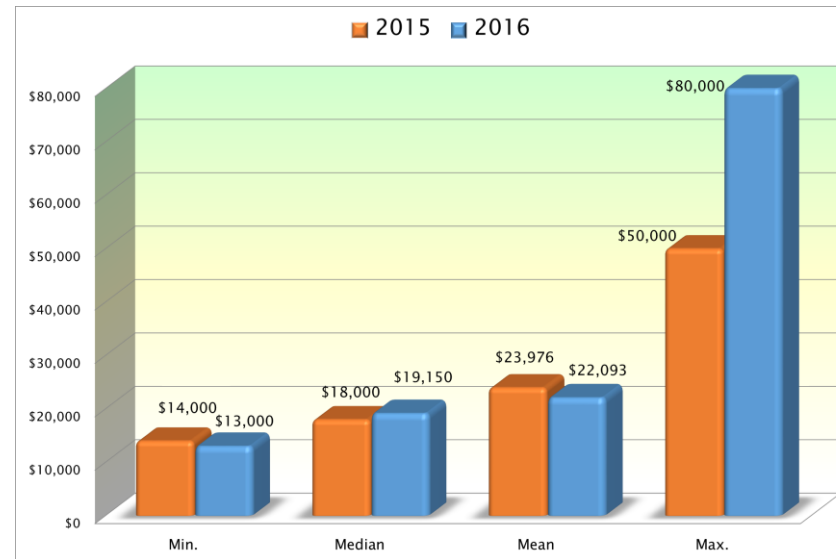


# Career

## Where did our graduates go?



## Basic Salary



## Positions

	IT-related	Others
2015	85%	15%
2016	94%	6%

## Companies

	2015	2016
IT/Tech./Engg.	46%	53%
Finance/Business	42%	30%
Others	12%	17%

## 2016 Employment Survey

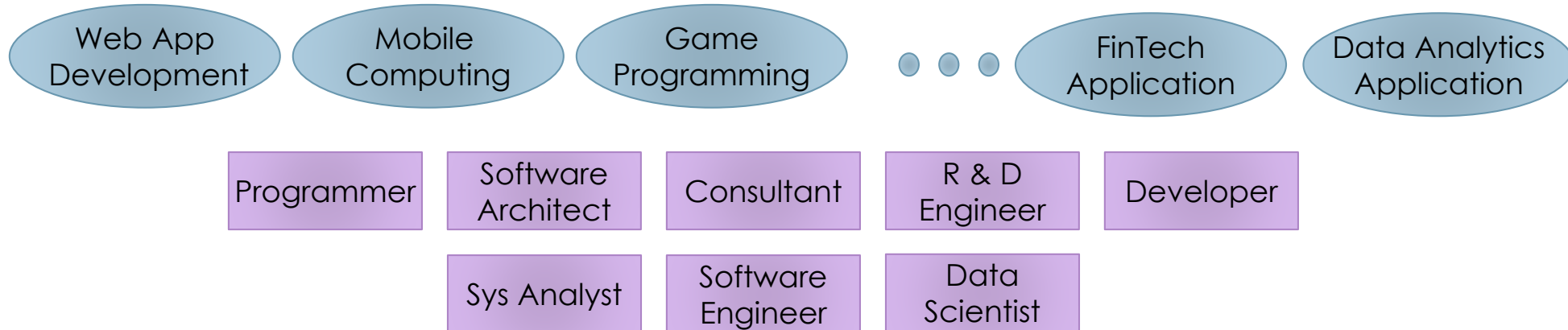
# Career

Source: <http://computingcareers.acm.org/>

- ◉ Major Career Paths
  - ◉ Designing and Implementing Software – Software Industry
    - ◉ Software Engineering
    - ◉ Software Quality Assurance
    - ◉ Project Management
    - ◉ Multimedia Content
    - ◉ Database Administration
  - ◉ Planning & managing organization technology infrastructure
    - ◉ IT Architecture
    - ◉ Service Management and Operation
    - ◉ Information Security
  - ◉ Further Study – Research

# Career

## ◉ Software Industry



## ◉ OOP & Java, ITM of Software Systems, Mach Learning

- ◉ WWW, Mobile App Dev, Game Design, Dist Comp, Project Management
- ◉ Security, EComm, A.I.,
- ◉ C Graphics, MultiM, C Vision



# Career



- ◉ Planning & managing organization technology infrastructure

IT Admin

IT Officer

IT Support

Consulting IT  
Specialist

System  
Admin

- ◉ Security, OOP & Java, Dist Comp, WWW
  - ◉ Comp Arch, Mobile App Dev, EComm, Project Management

# Career



- ◉ Further Studies – Research

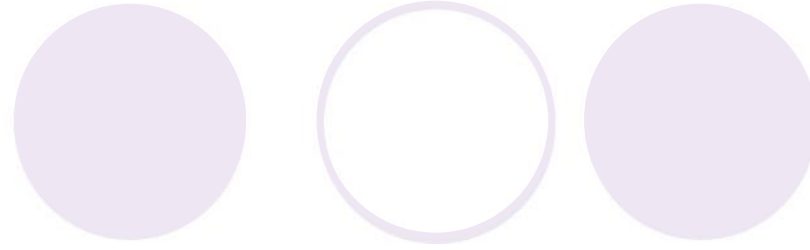
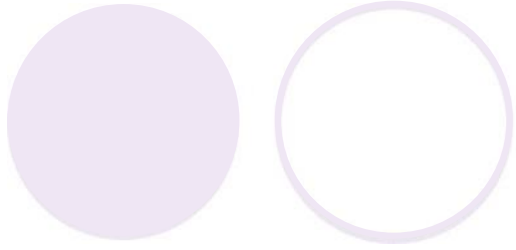
- ◉ Devising new ways to use computer
- ◉ Developing effective ways to solve computing problem

- ◉ Compiler, C Vision, Algo, Machine Learning, Prog Lang

- ◉ C Graphics, A.I., Quantum Comp, Adv DB
- ◉ Research Internship
  - ◉ Join Undergraduate Research Fellowship Programme (URFP)
  - ◉ Join other Overseas Research Internship programme (Must be approved by the Department)
- ◉ Minor in Maths / Stat

# Useful References

- ◉ ACM Computing Careers Website
  - ◉ <http://computingcareers.acm.org/>
- ◉ Target Jobs – IT and Technology
  - ◉ Specialisms:
    - ◉ <https://targetjobs.co.uk/career-sectors/it-and-technology/advice/specialisms>
  - ◉ Ten typical jobs graduates can do in IT:
    - ◉ <https://targetjobs.co.uk/career-sectors/it-and-technology/advice/286189-ten-typical-jobs-graduates-can-do-in-it>

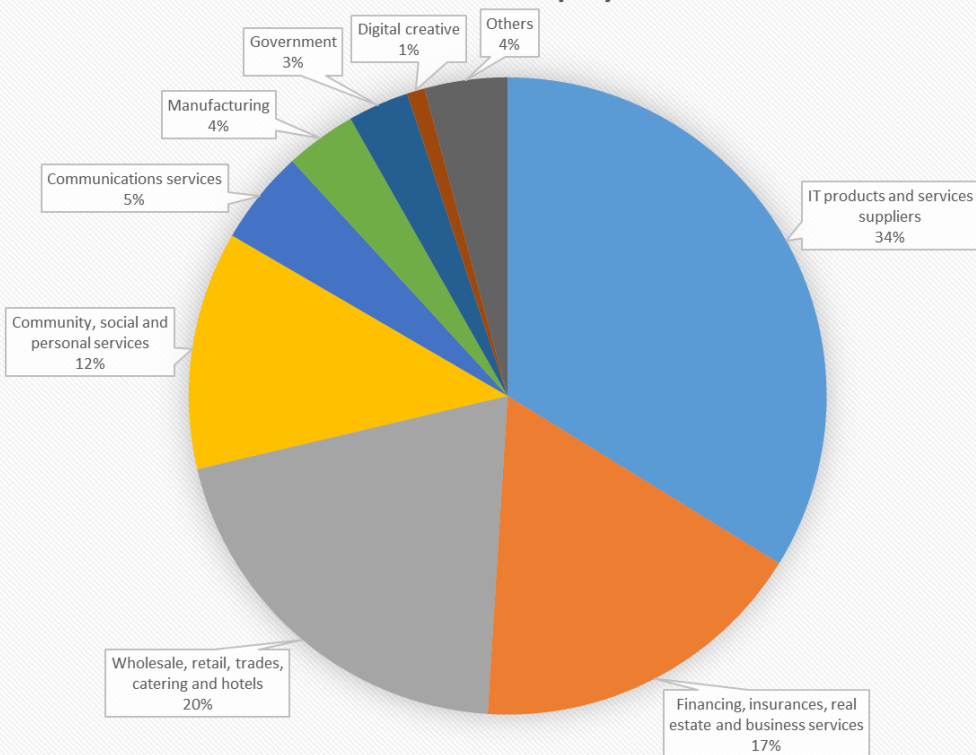


# Backup Slides

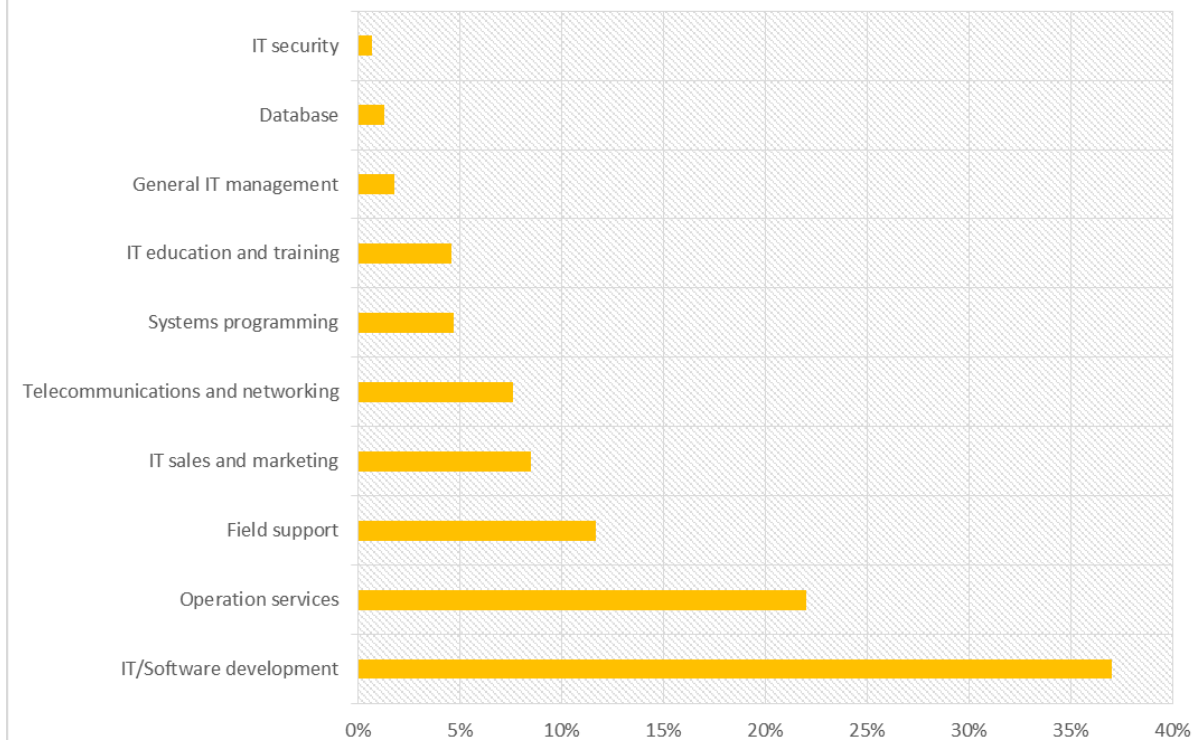
# Career

**Distribution of IT employees by industry grouping (2012)**

**Total number of IT employees: 78685**



**Manpower structure of the IT sector by job category (2012)**



Source: "Hong Kong as an information society", 2013 Edition, the Census and Statistics Department

# IT Professional Proficiency Matrix

Job Category Competency Level	Software Engineering / Software Development	Software Quality Assurance	Project Management (IT)	IT Architecture	Service Management and Operation	Information Security	Multimedia
Master	Software Engineering Manager	Software Quality Assurance Manager	IT Project Director	IT Architect Manager	Service Operation Manager	Information Security Manager	Multimedia Content Manager
Specialist	Senior Software Engineer	Software Quality Assurance Specialist	IT Project Manager	Senior IT Architect	System Operation Specialist	Information Security Specialist	Multimedia Content Specialist
Practitioner	Software Engineer	Software Quality Assurance Professional	Assistant Manager, IT Projects	IT Architect	System Operation Officer	Information Security Officer	Multimedia Content Developer

Source: Hong Kong Computer Society 香港電腦學會