Introduction to Intellectual Property (IP) Teaching Tools

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The Patent Teaching Kit (PTK)
Patent Teaching Kit - goals

- Ensuring that all students in all faculties, including
  - law
  - science and engineering
  - economics

... have a basic understanding of patents

- Enabling university teachers - with or without IP knowledge - to integrate a lecture on patents into existing education programmes

- Self-explanatory tool containing
  - PowerPoint slides
  - notes allocated to each slide
  - background information

Patent Teaching Kit - structure

2 core modules
PowerPoint file with presentation notes
30-40 slides, 1-2 hours

Detailed background information
1-2 pages per slide

Optional slides
(further examples, statistics, etc)

3 sub-modules
PowerPoint files with presentation notes
Slide and allocated speaking notes

Venice patent law:
- Invention new to a certain region
- 10 years
- Details not published

Galileo’s Galilei: patent on water pump
Published in 1555

Today:
- New to the world (European Law)
- 20 years
- Details published

Main goals of today’s patent system:
(a) Incentive to innovate (protect results so the inventor can reap benefits) makes it easier to attract investment
(b) Incentive to share knowledge (to get protection the inventor must publish the details, patent databases promote technology transfer)

This dual nature of the patent system is sometimes referred to as a contract between society (which gets the knowledge) and the inventor (who gets the exclusive rights).

Background information

Slide 9: The patent system

From this slide onwards, the presentation focuses on patents.

The first account we have of a formal patent law dates back to 13th AD, when the Senate of Venice introduced a patent law. The aim of this patent law was to promote innovation and protect the honour of inventors. Venice is believed to have issued about 600 patents (approximately 4 patents per year) from 1432 to 1386, the year when Galileo was granted a patent.

Galileo was granted a patent on a water pump he invented. He did not provide the details of his invention before the patent was granted—he only stated its prospective use and performance. He was given a privilege to use the invention exclusively, provided he made the device within a year. The requirement to actually make the invention in order to lose the patent was common in the Venetian patent system.

The text of Galileo’s patent reads:
“That by the authority of this Council is granted to Mr. Galileo Galilei that for the space of the next twenty years other than him or his agents are not allowed in the city or any place in our State to make, have made, or in any other way to use the device invented by him for raising water and irrigating fields, by which with the motion of only one horse twenty buckets of water that are contained in it run out continually under pairs of lances which will go to the supplicant, and pass away, a third of which will be for the accuser, a third for the manufacturer who undertakes the production, and a third for our Anrei, the supplicant being obligated, however, to have made known this new type of device within one year, and that it has not been invented or recorded by others, and that a patent has not been granted [in the same device] to others; otherwise the present grant will be void.”

The main goals of today’s patent system are to promote innovation (by offering protection to the results of the inventive work) and to give an incentive to share knowledge (by requiring the publishing of the inventor’s details when a patent is sought), so that people can learn from each other. This dual nature of the patent system is sometimes referred to as a contract between society (which gets the knowledge) and the inventor (who gets the exclusive rights).
Patent Teaching Kit - content

General, easy-to-understand core modules = introductory lectures:

- **Core module 1** "Protect your ideas":
  - awareness of the opportunities (and risks) of the patent system
  - practical knowledge on what to do with an invention

- **Core module 2** "How patents work":
  - basic features of patent law
  - post-grant issues

Three additional **sub-modules for specific topics**:

- A "Searching for patents"
- B "The use of patents by a university spin-off"
- C "Understanding patent claims"

The IP Course Design Manual

...a complementary tool
The IP Course Design Manual - a complementary tool

• Existing resources

• Specific EPO and EPO Academy actions

• Existing knowledge and initiatives in universities

IP Course Design Manual

IP Course Design Manual - goals

• Awareness and general knowledge on IP
  - What is IP?
  - Its value for business, universities, society?
  - Why protect IP?
  - Different IPR categories and what they protect
  - How is IP protection obtained and protected?
  - ...

• Specific approaches with a focus on IP as an asset
  - How is IP accounted for and valued?
  - How to derive revenue from protected IP?
  - How can strategic thinking reduce risks of IP infringement?
  - How to establish partnerships (among private and public entities) based on IP?
  - Why and how to integrate IP into management considerations?
  - ...

IP Course Design Manual - structure

• Each module is:
  – **Stand alone**: possibility to take from one to several courses
  – **Combinable**: several possibilities of course continuation to deepen knowledge on specific topics
  – Organised according to learning objectives and level of studies

Structure

• Each module includes (1/2):
  – Course overview
  – Learning objectives
  – Suggested course duration
  – …
Structure

- Each module includes (2/2):
  - ...  
  - Target audience
  - Pre-requisites and prior knowledge of other modules
  - Reference to related modules and possible course continuation
  - Suggested teacher profile
  - Suggested student assessment

<table>
<thead>
<tr>
<th>Target audience</th>
<th>Prior knowledge</th>
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<tbody>
<tr>
<td>Students of engineering, science, medicine, business, economics, social sciences or anthropology</td>
<td>No previous knowledge of IP required</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Teacher profile</th>
<th>Knowledge of this module is recommended/required for</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lecturers in engineering, science or economics with a knowledge of IP law, assistance from experienced IP managers</td>
<td>IP managers of IP law are recommended.</td>
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<tr>
<th>Student assessment</th>
<th>Related modules</th>
</tr>
</thead>
<tbody>
<tr>
<td>Courses, tests and practical exercises</td>
<td>2A, 2B, 4A &amp; 4B</td>
</tr>
</tbody>
</table>

IP Course Design Manual - content

Section 1: Introduction to IP
- for non law students
- for law students
- History of IP

Section 2: Advanced modules on IP management and commercialisation
- for post graduate students planning to work in public or private R&D, innovation management or business management

Section 3: Advanced modules on IP Law
- 4 modules for law students and those wishing to specialise in IP

Section 4: Modules on IP for specific disciplines
- computer scientists
- biotechnology specialists
- students of the arts, music, editing and designing

Section 5: Research projects on IP
- for students at pre-doctoral stage to apply acquired IP knowledge and carry out research in relation to IP in their field
IP Course Design Manual - method

- A map for building IP based programmes at all levels of studies with proposed itineraries as regards:
  - topics, subtopics, lecturers, time-spans

*University teaching staff must be proactive in the implementation of the manual !!!*

- For the execution, it is necessary to
  - select and adapt programmes to core study objectives and possibilities
  - find complementary resources (e.g. materials or collaborators)

IP Course Design Manual - implementation

- SELECT IP based course programme
  - incorporate teaching of IP in “existing” or “new” lecture programme
  - agree on the target audience and build on prior IP knowledge

- ADAPT programme to core study objectives and possibilities
  - identify IP aspects that are of interest to the university and the audience
  - suitable elements should be taken, combined, modified and linked

- USE complementary resources (e.g. materials or collaborators)
  - how to deliver the lecture and link individual modules
  - check for material in the Patent Teaching Kit
Need more information?

Please contact:

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Internet: EPO Learning & events
http://www.epo.org/learning