Schedule 1: Search Skills Syllabus

Searching Knowledge

Background

- What is the difference between data, information and knowledge?
  - Information retrieval basics (e.g. precision / recall dilemma)
  - Structured data vs flat file (i.e. relational databases vs using internet search engines)
  - Command based interfaces vs forms
  - Named field searching vs mere keyword input
  - Boolean logic and proximity operators
  - Truncation and stemming

Patent and Intellectual property knowledge for searching

- What kinds of industrial property rights are there?
  - Different IP rights (patents, utility models, design, etc)
  - Difference between application, publication and granted patent
  - Knowledge on territorial coverage (national vs regional and PCT* applications and priority country)

- What is a patent?
  - Knowledge on patent law → see Schedule 2
  - Different publication stages, their significance and their kind codes
  - Patent life spans, opposition procedures, SPCs*, PTAs*
  - Annuity payments and patent life span, reinstatement, others

- What parts is a patent made of?
  - Knowledge on different parts of patents (cover page, bibliographic data, INID codes*, title, abstract, description, claims, drawings)
  - Patent families – different types
  - Claim interpretation – commonly found words – comprising/consisting of etc

- What are important dates in the life of patent?
  - Application, priority and publication dates, grace periods
  - Duration, expiry
  - How to determine whether a patent is “in force”
  - How dates relate to prior art, validity and other search types → see Schedule 2

- What is a legal status?
  - Sources of legal status (national / federated registers* vs aggregated data (Inpadoc*))
  - Access to legal status data (national registers)
  - Interpretation of legal status codes*, event classes
  - Exceptions to statuses (esp. non-payment of the annual fee and non-entry into national / regional phase restitutio)

Databases and patent information resources:

- What patent data are there?
  - Publicly accessible data (Espacenet*, Google Patents*, others)
  - Knowledge on bibliographic, abstract, full-text and proceedure related data (Espacenet*, Patentscope*, national office data, registers, others)
  - National register data
  - Data formats (PDF, XML, HTML, others

- What is a patent database?
  - Publicly available patent data (national, regional offices, registers)
  - Commercial databases
  - Database structures (fields, operators, proximity, others)
  - Database/Host command language(s)
  - Database documentation
  - Database pricing structures

Searching skills

- What is a command language?
  - How to enter commands
  - How to access databases
  - Fielded searching: how to search fields (field=, /field, others)
  - How to find information on the structure of the database
  - Search history: documentation of search steps
  - Dividing a search into a multitude of search steps
  - Combining / re-using earlier search statements
  - Knowledge on available display commands and their respective formats
  - Searching numerical properties of items (length, weight, conductivity, etc)
  - Knowledge on miscellaneous commands (expand, select, analyse, others)
  - Meaningfully combine data (e.g. dates and kind codes)

- How to prepare a patent search?
  - Resources for technical background (e.g. Wikipedia etc.)

- Llinguistic resources (dictionaries, translation services. PatentScope*)
- Where to find database documentation e.g. database fact sheets
- Database provider's information resources (database description, guide to commands, examples, best practices)

- How to find valid keywords?
  - Extracting meaningful search words from a search request
  - Knowledge on how to choose from scanning exemplary hits (rough first hit set)
  - Use of citing and cited patents
  - Knowledge on dictionaries and foreign language interfaces (e.g. PatentScope, Google Translate, others)
  - Using database's keyword highlighting to help evaluate result
  - Combining keywords into concepts

- What to consider when faced with name search
  - Where to find information on applicant (e.g. corporate websites)
  - Company structures and affliations
  - Using expand commands for expanding on company name roots
  - Using corporate tree mechanism in patent databases
  - Where to find owner information in patent legal status

Classification and specialist searching:

- What is patent classification?
  - IPC* based classification (CPC*, DEKla*, FI*)
  - Other public non-IPC based classification (F-terms*, USClass*)
  - Commercial non-IPC based classification (Derwent Class* and Manual Code*)
  - Basic knowledge on classification for other IP rights (Nice*, Locarno*, Vienna*, etc.)

- How do you find the right classification?
  - WIPO*, EPO*, GPTO*, USPTO* and JPO* office classification sites
  - Availability of different search facilities (e.g. WIPO search in class definition text vs EPO search in limited number of patent documents and statistical display)
  - Use of classification thesauri in patent databases
  - Using analysis of the results of a keyword search for finding classification

- How do you find chemical data?
  - CAS registry number (finding numbers through Registry, internet)
  - Structure searching (when it is suitable and when not)
  - Using roles in relation to chemical entities
  - Linking of chemical aspects to the chemical entity
  - Chemical nomenclature and finding synonyms/common words
  - Chemical name searching/controlled terms in Patbase, Derwent, chemical

abstracts
    - Generics vs specifics in chemistry
    - Polymer searching in CAS, WPI etc
    - Sequence searching different databases and how to use them

- What is a citation search?
    - What a citation in a patent means
    - Difference between examiner and applicant citations
    - Difference between forward and backward citations
    - Citation categories (e.g. "X", "Y" and "A" in EPO / WIPO search reports)
    - How to search for citations in databases

In practice

Prior art searching

- What to consider when faced with a state of the art search?
    - Combining keywords into concepts
    - Knowledge on keyword and classification search and the combination of both
    - Knowledge on exactitude vs completeness of search result (precision vs recall)
    - Report writing: Identifying relevant parts of patents/literature to cite to client

Validity/opposition searching

- What to consider when faced with an opposition search?
    - Claim interpretation ((in-) dependent, preamble, charcterizing part)
    - Knowledge on priority dates / grace periods to allow suitable time frame to be searched
    - Which part of document should be searched
    - Subject matter eligible for prior art, obviousness
    - Non-patent literature sources
    - Use of citation searches
    - Report writing: Identifying relevant parts of patents/literature to cite to client

Patent infringement risk searching

- What to consider when faced with a patent infringement risk search?
    - How to determine a potentially infringing patent with a product
    - Identifying intended markets for scope of search – limiting to countries of interest and regional counterparts
    - Extracting important features from search request / product description for searching

- Translation of important features into a search strategy
- Determining time scale for searching potentially living patents → see Schedule 2
- Knowledge on identifying product features in claim language
- Searching/evaluating claims to assess relevancy
- Determining the status of a patent to determine whether it is still in force or pending patents → see Schedule 2
- Report writing: neutral language and words to be avoided when reporting potentially threatening patents (words that should be avoided – “valid” “infringe” etc)

Patent analysis and statistics

- What to consider when faced with a statistical search?
  - In-depth knowledge on database structure, data fields and operators
  - Knowledge on how to check assignee data for company cross-ownerships / acquisition
  - Meaningfully combine data (e.g. dates and kind codes)
  - Basic knowledge on statistics
  - Knowledge on publicly available data (patent offices, PatStat*) / commercial offerings
  - Visualising data
  - Limitations of integrated visualisation features of databases
  - Cleaning data up and why/when

Post processing results and preparing reports

- How to postprocess your results?
  - Downloading search results
  - Data formats (e.g. plain text, csv, XML, PDF, others)
  - How to integrate your search result into a word processing or spreadsheet program
  - How (and how not) to formulate your findings / conclusions
  - Report writing: what not to write into your search report

- How do you document your work?
  - How to save your search steps for future reference and / or re-use
  - Knowledge on which steps in your preparations, search and client communication to document
  - Identifying important parts of your search to check and update when re-using a search at a later point in time

Annex:

PCT http://www.wipo.int/pct/en/faqs/faqs.html
(Patent Cooperation Treaty)

SPC http://en.wikipedia.org/wiki/Supplementary_protection_certificate
(supplementary Protection Certificate)

PTA http://www.uspto.gov/patents/law/aipa/pta/
(Patent Term Adjustment)

INID codes http://www.wipo.int/export/sites/www/standards/en/pdf/03-09-01.pdf
(Internationally agreed Numbers for the Identification of (bibliographic) Data)

Patent families http://www.epo.org/searching/essentials/patent-families.html

Legal status codes http://www.epo.org/searching/data/data/tables/legal-status.html

Federated registers http://www.epo.org/service-support/faq/searching-patents/register.html

Inpadoc http://www.epo.org/searching/subscription/raw/product-14-11.html

Espacenet http://www.epo.org/searching/free/espacenet.html

Google Patents https://www.google.com/?tbm=pts&gws_rd=ssl

Patentscope http://www.wipo.int/patentscope/en/

Classification related sites

IPC http://www.wipo.int/classifications/ipc/en/
(International Patent Classification)

CPC http://www.cooperativepatentclassification.org/
(Cooperative Patent Classification)

DEKla https://depatisnet.dpma.de/ipc/
(Deutsche Klassifikation)

FI http://www5.ipdl.inpit.go.jp/pmgs1/pmgs1/pmgs_E
(Japanese File Index)

USCla http://www.uspto.gov/patents/resources/classification/index.jsp
(US Classification – now defunct)

F-terms http://www5.ipdl.inpit.go.jp/pmgs1/pmgs1/pmgs_E
(Japanese File Forming Terms)

Derwent manual codes
http://ip-science.thomsonreuters.com/support/patents/dwpiref/reftools/classification/

Nice classification http://www.wipo.int/classifications/nice/en/

Locarno classification http://www.wipo.int/classifications/locarno/en/

Vienna classification http://www.wipo.int/classifications/vienna/en/

Classification search

WIPO http://web2.wipo.int/ipcpub/#refresh=page

EPO http://worldwide.espacenet.com/classification?locale=en_EP

USPTO http://www.uspto.gov/web/patents/classification/index.htm

German office https://depatisnet.dpma.de/ipc/recherchex.do

JPO http://www4.ipdl.inpit.go.jp/Tokujitu/tjftermena.ipdl?N0000=114

Statistics

PatStat http://www.epo.org/searching/subscription/expert/about.html