

PHARMINE

WP5 – EXP: Industrial Pharmacy Specialization

J. Atkinson, PCN, Villers, France

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Survey existing E&T for industrial pharmacists in Europe

•UK :

- prerequisites with outcomes for preregistration E&T at HEI
- post-registration CPD with modular, distance learning

•France :

- specialized pre-registration courses (5th and 6th years) for industrial pharmacists
- double diploma courses

•Denmark :

- master programs for industrial pharmacists
- majority of graduating pharmacists work in industry

•Belgium :

- industrial pharmacy master courses

•Latvia & Bulgaria :

- E&T for industrial pharmacists in its infancy

•Sweden :

- special qualifications for prescriptionist

Aims of WP5

Gather information on existing frameworks for competences for industrial pharmacists

France (*Commission Pédagogique Nationale des Etudes Pharmaceutiques*)

Other

Survey HEIs and post-registration, working industrial pharmacists

what is missing in existing E&T for industrial pharmacists?

Position paper on the European model for E&T in industrial pharmacy

Four types of HEI courses

I: General knowledge of industrial pharmacy

Short introduction to existing /
traditional roles and competences

End of third year
30-60 hours

II: Master in industrial pharmacy

First year master

Existing / traditional roles and competences

Second year master

New domains of activity (remote administration / patient monitoring - clinical pharmacy, nutraceuticals / cosmetics / medical devices, insurance / audit, logistics / distribution...

Offer in modular form *via* long distance learning

Available also for CPD

Four types of HEI courses

III: Double diploma (e.g. pharmacy plus law)

Law, languages, economics, business management, agriculture, chemical engineering...

Second year master in appropriate HEI followed by validation by pharmacy HEI, for double diploma

French double diploma: pharmacist and chemical engineer

1st – 5th year: pharmacy faculty

1st - 4th year: pharmacy

4th year:

- introduction to the pharmaceutical industry (90 hours)

5th year:

- production in the pharmaceutical industry (90 hours)

- introduction to chemical engineering (mathematics, thermodynamics...) (90 hours)

- hospital traineeship (6 months)

- industrial traineeship (3 months)

6th and 7th years:

- 2nd and 3rd years of chemical engineering degree course (*Ecole Nationale Supérieure des Industries Chimiques*)

Four types of HEI courses

IV: Ph.D.

R&D (biomedicine, chemistry, engineering, formulation...)

Ph.D. 50% in HEI, 50% in industry