

**Registration Examination Syllabus for the 2011 Registration Examinations of the Pharmaceutical Society of Northern Ireland**

This syllabus has been produced by the Pharmaceutical Society of Northern Ireland to provide pre-registration students and their tutors with information about which aspects of pharmacy practice will be examined.

Section 1	Professional and Legal Practice
<b>1 Pharmaceutical Society of Northern Ireland and other Pharmaceutical Bodies</b>	You must be able to demonstrate an understanding of:
1.1 <b>Pharmaceutical Society of Northern Ireland</b>	<ul style="list-style-type: none"> <li>It's structure, functions and responsibilities</li> </ul>
1.2 <b>Structure and Function of Other Pharmaceutical Organisations</b>	<ul style="list-style-type: none"> <li>For example, Pharmaceutical Contractors Committee (P.C.C.), Ulster Chemists Association (U.C.A.), National Pharmaceutical Association (N.P.A), Northern Ireland Centre for Pharmacy Learning and Development (NICPLD)</li> </ul>
1.3 <b>Structure and Function of other Healthcare Regulatory Organisations</b>	<ul style="list-style-type: none"> <li>For example, Council for Healthcare Products Regulatory Excellence (CHRE), Medicines and Healthcare Regulatory Agency (MHRA), General Pharmaceutical Council (GPhC)</li> </ul>
<b>2 Professional Ethics</b>	You should be knowledgeable of all aspects of ethics relating to professional practice covered in the Code of Ethics, Professional Standards and Guidance Documents, A Guide to Legal Requirements and the Medicines, Ethics and Practice guide
2.1 <b>Code of Ethics</b>	<ul style="list-style-type: none"> <li>The concepts of ethical decision making, liability, accountability and professional responsibility</li> <li>The standards of professional performance</li> <li>Principles and obligations</li> <li>The standards of good professional practice</li> </ul>
2.2 <b>Clinical Governance</b>	<ul style="list-style-type: none"> <li>The purpose and principles of clinical governance</li> <li>The application of clinical governance in pharmacy practice</li> </ul>
2.3 <b>Continuing Professional Development (CPD) in Pharmacy</b>	<ul style="list-style-type: none"> <li>The meaning of lifelong learning</li> <li>The meaning and principles of CPD</li> <li>The Northern Ireland system for undertaking and recording professional development</li> </ul>
2.4 <b>Principles of audit</b>	<ul style="list-style-type: none"> <li>The purpose and process of audit and its application in improving practice</li> <li>Guidelines and Audit Implementation Network (GAIN)</li> </ul>
2.5 <b>Roles and training requirements for pharmacy support staff</b>	<ul style="list-style-type: none"> <li>The roles commonly undertaken by healthcare staff in support of pharmacy services</li> <li>The training and/or qualifications required for such roles</li> </ul>
<b>3 Legal aspects of providing a Pharmaceutical service</b>	The application of legislation included in the Medicines Act 1968, Misuse of Drugs Act and Regulations, Poisons Order 1976, and other relevant legislation. You must be able to demonstrate an understanding of:
3.1 <b>Sale and supply of medicines and poisons</b>	<ul style="list-style-type: none"> <li>The legal requirements for the sale and supply of medicines and controlled drugs from pharmacies</li> </ul>
	<ul style="list-style-type: none"> <li>The legal requirements for the sale and supply of poisons, chemical reagents and spirits from pharmacies</li> </ul>
	<ul style="list-style-type: none"> <li>The requirements for the labelling and packaging of all the above substances</li> </ul>
	<ul style="list-style-type: none"> <li>The requirements for the supply of supplementary information for all the above substances</li> </ul>
	<ul style="list-style-type: none"> <li>The requirements for dealing with medicines returned to a pharmacy</li> </ul>
	<ul style="list-style-type: none"> <li>Patient Group Directions</li> </ul>

	<ul style="list-style-type: none"> <li>• Non-medical prescribing</li> <li>• Handling of EEA prescriptions</li> </ul>
<b>3.2 Health and Safety at Work</b>	<ul style="list-style-type: none"> <li>• The responsibilities of employers and staff to ensure the safety of everyone on the premises and the legislation affecting this duty</li> </ul>
	<ul style="list-style-type: none"> <li>• Health &amp; Safety at Work Act</li> </ul>
	<ul style="list-style-type: none"> <li>• Control of Substances Hazardous to Health (COSHH) regulations</li> </ul>
	<ul style="list-style-type: none"> <li>• The principles of risk assessment and management</li> </ul>
<b>3.3 Safe systems of work</b>	<ul style="list-style-type: none"> <li>• Safe systems of work, recognising potential hazards and areas for error, in relation to: dispensing, sale and supply of poisons and chemicals, counter sales of medicines and diagnostic testing</li> </ul>
<b>3.4 Consumer Protection</b>	<ul style="list-style-type: none"> <li>• How relevant legislation protects the consumer of pharmaceutical services and how the pharmacist can practise within these controls</li> </ul>
	<ul style="list-style-type: none"> <li>• Trade Description Act</li> </ul>
	<ul style="list-style-type: none"> <li>• Data Protection Act</li> </ul>
	<ul style="list-style-type: none"> <li>• Medicines and Healthcare products Regulatory Agency</li> </ul>
<b>3.5 Data protection and health records</b>	<ul style="list-style-type: none"> <li>• Aspects of legislation that pertain to the keeping and disclosure of data on computer and other recording systems</li> </ul>
<b>3.6 Environmental Protection</b>	<ul style="list-style-type: none"> <li>• Aspects of legislation that pertain to the safe disposal of special and controlled waste from the pharmacy</li> </ul>
<b>3.7 Disability Discrimination Act</b>	<ul style="list-style-type: none"> <li>• Access to premises and pharmacy services</li> </ul>
<b>3.8 The Health &amp; Personal Social Services Northern Ireland</b>	<ul style="list-style-type: none"> <li>• HPSS Authorities/Board The role of the various authorities: Department of Health, Social Services and Public Safety Health and Social Care Board Public Health Agency Business Services Organisation (BSO)</li> </ul>
	<ul style="list-style-type: none"> <li>• Pharmaceutical Officers within the HPSS</li> </ul>
	<ul style="list-style-type: none"> <li>• The HPSS, the Department of Health &amp; the Government</li> </ul>
	<ul style="list-style-type: none"> <li>• The evaluation of recent government policy, its impact on health care, and the implications for the profession</li> </ul>
<b>3.9 Conditions for operating a registered pharmacy</b>	<ul style="list-style-type: none"> <li>• The requirements to register a Pharmacy</li> </ul>
	<ul style="list-style-type: none"> <li>• The role of the superintendent pharmacist</li> </ul>
	<ul style="list-style-type: none"> <li>• The role of the responsible pharmacist</li> </ul>
	<ul style="list-style-type: none"> <li>• The role of the Accountable Officer and Designated Bodies</li> </ul>
	<ul style="list-style-type: none"> <li>• Community Pharmacy Premises Standards</li> </ul>

Section 2	Clinical and Pharmaceutical Practice
<b>1 The basis of responding to symptoms including the major categories of symptoms and the appropriate responses for a pharmacist</b>	
<b>1.1 Questioning</b>	<ul style="list-style-type: none"> <li>• Pre-registration students must know how to construct an appropriate interview with a person seeking advice</li> </ul>
<b>1.2 Differentiation of symptoms, advice and referral</b>	<p>Pre-registration students should have knowledge of major and minor diseases which will allow them to know from the symptoms presented and/or elicited when they can treat or when they must refer to a doctor.</p> <p>The knowledge base for this objective includes:</p> <ul style="list-style-type: none"> <li>• Symptoms of minor and major diseases</li> <li>• Relationship between symptoms and diseases</li> </ul>
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	<ul style="list-style-type: none"> <li>• Epidemiology</li> </ul>
	<ul style="list-style-type: none"> <li>• Aetiology</li> </ul>
	<ul style="list-style-type: none"> <li>• Prognosis, severity and when to refer</li> </ul>
	<ul style="list-style-type: none"> <li>• When a pharmacist can treat</li> </ul>
	<ul style="list-style-type: none"> <li>• Therapeutics and pharmaceuticals of OTC medicines including: indications, doses, dosage forms, contraindications, adverse effects, interactions with prescribed medicines, OTC and home remedies</li> </ul>
<b>2 Pharmacological and therapeutic aspects of the provision of a pharmaceutical service</b>	
<b>2.1 Reading and interpreting prescriptions</b>	<ul style="list-style-type: none"> <li>• The analysis of prescriptions to ensure that treatment is appropriate and consistent with the knowledge that the pharmacist has of the patient's condition. The ability to identify appropriate dosage levels when interpreting prescriptions, including those for at risk-groups.</li> </ul>
<b>2.2 Therapeutic Knowledge Base</b>	<ul style="list-style-type: none"> <li>• The therapeutic usage of drugs and preparations used in the treatment of diseases</li> </ul>
<b>2.3 Drug action, absorption, distribution, metabolism and elimination</b>	<ul style="list-style-type: none"> <li>• The interpretation and evaluation of data on the mechanism of drug action, absorption, distribution, metabolism and elimination</li> </ul>
<b>2.4 Drug Interactions</b>	<ul style="list-style-type: none"> <li>• The interpretation of potential drug-drug and drug-food interactions to assess the likelihood of interactions, their risk and management</li> </ul>
<b>2.5 Adverse drug reactions and side effects</b>	<ul style="list-style-type: none"> <li>• Adverse drug reactions and side-effects; the mechanisms and predisposing factors, the recognition of reactions, the acceptable level of risk, the reduction of risk and the reporting systems</li> </ul>
<b>2.6 Contra-indications</b>	<ul style="list-style-type: none"> <li>• The circumstances in which commonly prescribed and purchased medicines are contra-indicated</li> </ul>
<b>3 The use of reference books and other information sources in the practice of pharmacy</b>	The pre-registration student must have a working knowledge of the specified editions of the texts permitted in the Open Book Examination
<b>3.1 Reference Sources</b>	<ul style="list-style-type: none"> <li>• British National Formulary</li> <li>• British National Formulary for Children</li> <li>• Medicines Ethics and Practice</li> <li>• The Drug Tariff (N Ireland)</li> <li>• A guide to the Legal aspects of medicines</li> </ul> <p>In addition the student should be familiar with</p> <ul style="list-style-type: none"> <li>• Martindale – the Extra Pharmacopoeia</li> <li>• The Code of Ethics</li> <li>• Professional Standards and Guidance</li> <li>• Summary of Product Characteristics (SPCs) for drugs Medicines Compendium</li> <li>• Diluent Directories</li> <li>• Patient care in community practice (RJ Harman)</li> <li>• Pharmaceutical Journal</li> <li>• Pharmacy Law and Ethics (Dale &amp; Appelbe)</li> <li>• Handbook of Pharmacy Healthcare (RJ Harman and P Mason)</li> <li>• Community Pharmacy (P Rutter)</li> </ul>
<b>3.2 Regional Medicines Information Centres</b>	<ul style="list-style-type: none"> <li>• The functions and specialist applications of Regional Medicines information Centres</li> </ul>
<b>4 Aspects of a Pharmaceutical Care</b>	
<b>4.1 Advice to patients, carers and the public</b>	<ul style="list-style-type: none"> <li>• Queries that arise when a prescription is presented</li> <li>• Labelling of each prescription appropriately with normal cautionary and advisory labels</li> <li>• Warning Cards</li> <li>• The use of an appropriate style of communication for advising clients (including those</li> </ul>

	for whom English is not their first language) about medicines and educating them about health
<b>4.2 Advice to doctors and other healthcare professionals</b>	<ul style="list-style-type: none"> <li>The use of an appropriate style of communication for advising doctors and other health care professionals about medicines</li> </ul>
	<ul style="list-style-type: none"> <li>When it is appropriate to contact a prescriber and the best manner in which to make contact</li> </ul>
<b>4.3 Health Promotion</b>	<ul style="list-style-type: none"> <li>Health promotion in the context of pharmacy practice</li> <li>Recommendations for key health parameters</li> <li>The basis of health improvement programmes</li> <li>Environmental, social, lifestyle and dietary factors that influence health</li> <li>Influence of behavioural change on health promotion activities</li> <li>Concepts of health and disease based on public health model</li> <li>Health screening as a basis for health promotion</li> </ul>
<b>4.4 Emergency Measures</b>	<ul style="list-style-type: none"> <li>The provision of advice and/or first aid in response to a request for or need for help in emergency</li> <li>Referral to Hospital, GP or Poisons centres</li> </ul>
<b>4.5 Counselling requirements</b>	<ul style="list-style-type: none"> <li>Circumstances or situations in which patients or other clients require information</li> <li>The nature of that information and the most appropriate way to provide it to the individual</li> </ul>
<b>4.6 Optimising use of medicines</b>	<ul style="list-style-type: none"> <li>The purpose and principles of medicines management and pharmaceutical care</li> </ul>
<b>4.7 Interpretation of test results</b>	<ul style="list-style-type: none"> <li>The normal ranges for blood pressure and key blood components</li> <li>The normal ranges for therapeutic blood levels of drugs with a narrow therapeutic index</li> <li>The normal ranges for key parameters of bodily function</li> <li>The implications of figures outside these ranges</li> </ul>
<b>5 Systems and Procedures</b>	
<b>5.1 HPSS funding for pharmacy services</b>	<ul style="list-style-type: none"> <li>The Drug Tariff, why it is used and how</li> <li>Core services and additional services</li> <li>Pharmaceutical Clinical Effectiveness programme</li> </ul>
<b>5.2 Prescribing guidelines, data and formularies</b>	<ul style="list-style-type: none"> <li>The purpose of prescribing guidelines and of data from pricing authorities</li> <li>The purpose of local formularies</li> <li>The sources of evidence used in the development of prescribing guidelines, data and formularies eg National Institute for Health and Clinical Excellence (NICE), GAIN</li> </ul>
<b>5.3 Operating procedures in primary and secondary care</b>	<ul style="list-style-type: none"> <li>The reasons for standardising operating procedures in hospital and community pharmacies</li> <li>Standard operating procedures required under the Responsible Pharmacist Regulations</li> <li>Northern Ireland Medicines Governance Team policy/recommendations</li> <li>The main areas covered by such procedures / protocols</li> </ul>
<b>5.4 Responding to adverse drug reactions</b>	<ul style="list-style-type: none"> <li>The correct actions to take in response to a client reporting an adverse drug reaction, including the national reporting scheme</li> </ul>
<b>5.5 HPSS complaint procedure</b>	<ul style="list-style-type: none"> <li>The principles of the NHS complaint procedure with reference to complaints about pharmaceutical service</li> <li>Own complaints procedure in a pharmacy</li> </ul>
<b>6 Pharmaceutical aspects of practice</b>	
<b>6.1 Calculation</b>	<ul style="list-style-type: none"> <li>Perform accurately all types of calculations relating to pharmacy practice</li> </ul>
<b>6.2 Dilution</b>	<ul style="list-style-type: none"> <li>The correct procedures for the dilution of solid, semi-solid and liquid dosage forms, including selection of the correct diluent</li> </ul>
<b>6.3 Formulation and</b>	<ul style="list-style-type: none"> <li>How to develop a suitable formula for preparing extemporaneous products in</li> </ul>

<b>Preparation</b>	community and hospital practice
	<ul style="list-style-type: none"> <li>• How to apply suitable methods and procedures for the preparation of sterile and non-sterile products in community and hospital practice</li> </ul>
<b>6.4 Good dispensing practice</b>	<ul style="list-style-type: none"> <li>• The principles and practices involved in ensuring an accurate and efficient dispensing process</li> </ul>
<b>6.5 Special handling requirements</b>	<ul style="list-style-type: none"> <li>• The additional precautions necessary when preparing and dispensing cytotoxic and other products requiring health and safety precautions</li> </ul>
<b>6.6 Stability of dispensed preparations</b>	<ul style="list-style-type: none"> <li>• The factors affecting the stability of medicinal products (including those dispensed extemporaneously) and the impact of these factors on storage and labelling</li> </ul>
<b>7 The Principles of Procurement, Storage and Stock Control of Medicines</b>	
<b>7.1 Procurement</b>	<ul style="list-style-type: none"> <li>• The principles for procurement of pharmacy stock</li> </ul>
<b>7.2 Wholesaling</b>	<ul style="list-style-type: none"> <li>• The role of wholesalers and purchasing agreements with wholesalers</li> </ul>
<b>7.3 Storage</b>	<ul style="list-style-type: none"> <li>• Appropriate storage conditions for all stock</li> </ul>
<b>7.4 Stock Control</b>	<ul style="list-style-type: none"> <li>• A working knowledge of the principles of stock control</li> </ul>
	<ul style="list-style-type: none"> <li>• The assessment of stock levels and replenishment of stock from various sources</li> </ul>
	<ul style="list-style-type: none"> <li>• The principles and methods for assuring the quality of pharmacy products and materials supplied to and from the pharmacy</li> </ul>