

| Programme Objectives   | Graduate Attributes |             |            |              |               |           |         |
|--|---------------------|-------------|------------|--------------|---------------|-----------|---------|
|  | Knowledge Base      | Application | Creativity | Acquisitions | Communication | Team Work | Ethical |
| 1. Prepare students to become excellent and compassionate pharmacy technicians   | X                   | X           | X          | X            | X             | X         | X       |
| 2. Prepare graduating students with clinical competency skills at the level of an entry-level technician as defined by the clinical institutions of the community in Macao SAR, China. | X                   | X           |            |              | X             | X         | X       |
| 3. Prepare graduation students to meet the passing requirements in pharmacy technician registration in Macao SAR, China  | X                   | X           |            |              |               |           | X       |
| 4. Educate and train students to acquire technical skills and become proficient in tasks necessary to succeed in the profession  | X                   | X           | X          | X            | X             | X         | X       |
| 5. Prepare graduating students for postgraduate studies if they are interested in further academic pursue.   | X                   | X           | X          | X            |               |           |         |
|  |                     |             |            |              |               |           |         |
|  |                     |             |            |              |               |           |         |

| Year 1 | Course                              | Graduate Attributes |             |            |              |               |           |         |
|--------|-------------------------------------|---------------------|-------------|------------|--------------|---------------|-----------|---------|
|        |                                     | Knowledge Base      | Application | Creativity | Acquisitions | Communication | Team Work | Ethical |
| Sem 1  | Introduction to Pharmacy Profession | X                   | X           |            |              |               |           | X       |
|        | Basic Dispensing Techniques I       | X                   | X           |            |              |               |           |         |
|        | General Biology                     | X                   | X           |            |              |               |           |         |
|        | General Chemistry                   | X                   | X           |            |              |               |           |         |
|        | Cell Biology                        | X                   | X           |            |              |               |           |         |
|        | Anatomy & Physiology                | X                   | X           |            |              |               |           |         |
|        | Information Technology Fundamentals | X                   | X           |            |              |               |           | X       |
|        | Physical Education                  | X                   | X           |            |              | X             | X         |         |
|        | English I                           | X                   | X           |            |              | X             |           |         |
|        |                                     |                     |             |            |              |               |           |         |
| Sem 2  | Basic Dispensing Techniques II      | X                   | X           |            |              |               |           |         |
|        | Organic Chemistry                   | X                   | X           |            |              |               |           |         |
|        | Biochemistry                        | X                   | X           |            |              |               |           |         |
|        | Microbiology                        | X                   | X           |            |              |               |           |         |
|        | Immunology                          | X                   | X           |            |              |               |           |         |
|        | Pathophysiology                     | X                   | X           |            |              |               |           |         |
|        | Advanced Computer Applications      | X                   | X           | X          | X            |               |           | X       |
|        | English II                          | X                   | X           |            |              | X             | X         |         |
|        | General Elective I                  | X                   | X           |            |              |               |           |         |
|        |                                     |                     |             |            |              |               |           |         |

| Year 2 | Course                  | Graduate Attributes |             |            |              |               |           |         |
|--------|-------------------------|---------------------|-------------|------------|--------------|---------------|-----------|---------|
|        |                         | Knowledge Base      | Application | Creativity | Acquisitions | Communication | Team Work | Ethical |
| Sem 1  | Medicinal Chemistry     | X                   | X           |            |              |               |           |         |
|        | Pharmacology I          | X                   | X           |            |              |               |           |         |
|        | Pharmaceutics           | X                   | X           |            |              |               |           |         |
|        | Analytical Chemistry    | X                   | X           |            |              |               |           |         |
|        | English III             | X                   | X           |            |              | X             | X         |         |
|        | College Chinese I       | X                   | X           |            |              | X             | X         |         |
|        | General Elective II     | X                   | X           |            |              |               |           |         |
|        |                         |                     |             |            |              |               |           |         |
|        |                         |                     |             |            |              |               |           |         |
| Sem 2  | Pharmacy Practice I     | X                   | X           |            |              | X             | X         | X       |
|        | Pharmaceutical Analysis | X                   | X           |            |              |               |           |         |
|        | Pharmacology II         | X                   | X           |            |              |               |           |         |
|        | Pharmacognosy           | X                   | X           |            |              |               |           |         |
|        | English IV              | X                   | X           |            |              | X             | X         |         |
|        | College Chinese II      | X                   | X           |            |              | X             | X         |         |
|        | Professional Elective I | X                   | X           |            |              |               |           |         |
|        |                         |                     |             |            |              |               |           |         |
|        |                         |                     |             |            |              |               |           |         |

| Year 3 | Course                         | Graduate Attributes |             |            |              |               |           |         |
|--------|--------------------------------|---------------------|-------------|------------|--------------|---------------|-----------|---------|
|        |                                | Knowledge Base      | Application | Creativity | Acquisitions | Communication | Team Work | Ethical |
| Sem 1  | Pharmacy Practice II           | X                   | X           | X          | X            | X             | X         | X       |
|        | Clinical Pharmacy I            | X                   | X           |            |              | X             | X         |         |
|        | Pharmacy Law                   | X                   | X           |            |              |               |           | X       |
|        | Biopharmaceutics               | X                   | X           |            |              |               |           | X       |
|        | Biostatistics                  | X                   | X           |            |              |               |           |         |
|        | English V                      | X                   | X           |            |              | X             | X         |         |
|        | Professional Elective II       | X                   | X           |            |              |               |           |         |
|        |                                |                     |             |            |              |               |           |         |
|        |                                |                     |             |            |              |               |           |         |
| Sem 2  | Pharmacy Practice III          | X                   | X           | X          | X            | X             | X         | X       |
|        | Clinical Pharmacy II           | X                   | X           |            |              | X             | X         |         |
|        | Pharmacokinetics               | X                   | X           |            |              |               |           |         |
|        | Traditional Chinese Medicine   | X                   | X           |            |              |               |           |         |
|        | Research Methods               | X                   | X           | X          | X            |               |           | X       |
|        | Health Education and Promotion | X                   | X           | X          | X            | X             | X         | X       |
|        | English VI                     | X                   | X           |            |              | X             | X         |         |
|        |                                |                     |             |            |              |               |           |         |
|        |                                |                     |             |            |              |               |           |         |

| Year 4 | Course        | Graduate Attributes |             |            |              |               |           |         |
|--------|---------------|---------------------|-------------|------------|--------------|---------------|-----------|---------|
|        |               | Knowledge Base      | Application | Creativity | Acquisitions | Communication | Team Work | Ethical |
| Sem 1  | Internship I  | X                   | X           | X          | X            | X             | X         | X       |
|        | Thesis I      | X                   | X           | X          | X            | X             | X         | X       |
|        | English VII   | X                   | X           | X          | X            | X             | X         |         |
|        |               |                     |             |            |              |               |           |         |
|        |               |                     |             |            |              |               |           |         |
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|        |               |                     |             |            |              |               |           |         |
|        |               |                     |             |            |              |               |           |         |
| Sem 2  | Internship II | X                   | X           | X          | X            | X             | X         | X       |
|        | Thesis II     | X                   | X           | X          | X            | X             | X         | X       |
|        | English VIII  | X                   | X           | X          | X            | X             | X         |         |
|        |               |                     |             |            |              |               |           |         |
|        |               |                     |             |            |              |               |           |         |
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## Graduate Attributes

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*Graduate attributes are the overarching qualities, skills, knowledge and abilities to be developed by students during their studies in the undergraduate programmes of Macao Polytechnic Institute. The Graduate Attribute Mapping comprises seven attributes representing the key areas of generic capability shared by all graduates of Macao Polytechnic Institute.*

- *Knowledge Base*  
Have the basic skills and knowledge (profession-related knowledge and skills, problem solving skills, analytical skills, communication skills and flexibility) necessary for a successful career in the specialised field of studies.
- *Application*  
Have the ability to apply fundamental knowledge of the field.
- *Acquisition*  
Have the ability to accept new ideas and to learn independently in the acquisition of new knowledge and skills.
- *Creativity*  
Be innovative and creative, adaptable and able to guide developments in their careers / professions.
- *Communication*  
Have the ability to communicate effectively, not only with other computer scientists, but with the community at large on issues relevant to the specialised field of studies.
- *Teamwork*  
Have the ability to contribute effectively as members of multi-disciplinary and multi-cultural teams, with the capacity to be leaders or managers as well as effective team members.
- *Ethical*  
Have an appreciation of professional conduct and ethical issues pertinent to the industry.