Comparison of Foundation Knowledge Areas

The Domain of Dentistry represents the Clinical Content Areas and Foundation Knowledge Areas required for the safe, independent, general practice of dentistry by entry-level practitioners.

To better understand the Foundation Knowledge Areas, a comparison has been developed between the Foundation Knowledge Areas of the Domain of Dentistry for use by the INBDE and those currently covered by either Part I or Part II of the NBDE.

The following color coding has been used:

- **Covered on NBDE Part I**
- **Covered on NBDE Part II**
- **Covered on both NBDE Part I and NBDE Part II**
- **New. Covered on neither NBDE Part I nor NBDE Part II**

The size of the circle is **not** proportional to the weighting of the Foundation Knowledge Area on the INBDE.

The successful entry-level general practitioner is focused on the prevention, diagnosis, and management of oral disease, and the promotion and maintenance of general health. This requires application of the specific knowledge listed for each of the following FKS.
Basic and Foundation Sciences covered in part by Foundation Knowledge 1 (FK1) (9C)

**FK1** Molecular, biochemical, cellular, and systems-level development, structure and function

- Biochemistry
- Cancer Biology
- Cell Biology
- Dental Anatomy
- Embryology
- General and Systemic Pathology
- General Histology
- Genetics
- Gross Anatomy
- Head and Neck Anatomy
- Membrane Biology
- Molecular Biology
- Molecular Pathology
- Neuroscience
- Nutrition
- Occlusion / Gnathology
- Oral Biology
- Oral Histology
- Pharmacology
- Physiology

**Color Coding**

- **Part I**
- **Part II**
- **Parts I & II**
- **NEW**
Basic and Foundation Sciences covered in part by Foundation Knowledge 2 (FK2) (1C)

| FK2 | Physics and chemistry to explain normal biology and pathobiology |

![Diagram showing FK2 color coding]

- **General and Systemic Pathology**
- **Pharmacology**
- **Physiology**

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<tr>
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<tbody>
<tr>
<td>Part I</td>
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<tr>
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<tr>
<td>Parts I &amp; II</td>
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<tr>
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Basic and Foundation Sciences covered in part by Foundation Knowledge 3 (FK3) (3C)

<table>
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<tr>
<th>FK3</th>
<th>Physics and chemistry to explain the characteristics and use of technologies and materials</th>
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- Basic Radiology
- Biomaterials
- Biophysics
- Dental Material Sciences

**Color Coding**

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<th>Parts I &amp; II</th>
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Basic and Foundation Sciences covered in part by Foundation Knowledge 4 (FK4) (2C)

| FK4 | Principles of genetic, congenital and developmental diseases and conditions and their clinical features to understand patient risk |

- Craniofacial Biology
- Developmental Biology
- Embryology
- Genetics
- Hereditary Medicine

Color Coding:

| Part I | Part II | Parts I & II | NEW |
Basic and Foundation Sciences covered in part by Foundation Knowledge 5 (FK5) (3C)

<table>
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<tr>
<th>FK5</th>
<th>Cellular and molecular bases of immune and non-immune host defense mechanisms</th>
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- Immunology
- Immunopathology & Biology
- Microbiology
- Mycology
- Parasitology
- Virology

**Color Coding**

- Part I
- Part II
- Parts I & II
- NEW
Basic and Foundation Sciences covered in part by Foundation Knowledge 6 (FK6) (5C)

| FK6 | General and disease-specific pathology to assess patient risk |

Cellular and Molecular Pathology  
General and Systemic Pathology  
Immunopathology  
Pathology

Color Coding

| Part I | Part II | Parts I & II | NEW |

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Basic and Foundation Sciences covered in part by Foundation Knowledge 7 (FK7) (3C)

<table>
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<tr>
<th>FK7</th>
<th>Biology of microorganisms in physiology and pathology</th>
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- Epidemiology
- Immunopathology
- Microbiology
- Mycology
- Oral Biology
- Parasitology
- Pharmacology
- Preventive Medicine and Dentistry
- Public Health
- Pulp Biology
- Virology

Color Coding:
- **Part I**
- **Part II**
- **Parts I & II**
- **NEW**
Basic and Foundation Sciences covered in part by Foundation Knowledge 8 (FK8) (3C)

| FK8 | Pharmacology |

- Basic and Applied Pharmacology
- Biomedical Research
- Cancer Biology
- Evidence-based Dentistry
- Public Health Policy

Color Coding

- Part I
- Part II
- Parts I & II
- NEW
Basic and Foundation Sciences covered in part by Foundation Knowledge 9 (FK9) (4C)

FK9 Sociology, psychology, ethics and other behavioral sciences

Color Coding

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Basic and Foundation Sciences covered in part by Foundation Knowledge 10 (FK10) (5C)

| FK10 | Quantitative knowledge, critical thinking, and informatics tools |

- Applied Research
- Community Dentistry
- Critical evaluation of the scientific literature
- Dental, Medical and Health Informatics
- Dental Public Health
- Descriptive & Analytical Epidemiology
- Evidence-based Dentistry
- Health Promotion
- Library sciences
- Preventive Dentistry
- Statistics

Color Coding:

- **Part I**
- **Part II**
- **Parts I & II**
- **NEW**
Submitted for consideration by the JCNDE Committee for R&D – 2015