TRAINEE HANDBOOK 2024



Forensic Odontology

It is essential to read this Handbook in conjunction with the *Trainee Handbook – Administrative Requirements* which is relevant to all trainees. This has information about the College's structure and policies, together with details of requirements for registration, training and examination applications.

TABLE OF CONTENTS

GLO	SSAF	RY	iiiii
SECT	ΓΙΟΝ	1	1
INTR	ODU	CTION	1
PERS	SONA	AL CHARACTERISTICS NEEDED	1
GENI	ERAL	_ AIMS OF THE TRAINING PROGRAM	2
		FRATIVE REQUIREMENTS	
		SION	
		MENT	
		CES	_
		2	
1 DIS		LINE-SPECIFIC ACTIVITIES OF FORENSIC ODONTOLOGISTS	
	1.1	Foundation knowledge of forensic odontology	
	1.2	Anatomy and morphology	
	1.3 1.4	Forensic pathology Human identification	
	1.4	Mortuary techniques	
	1.6	Dental age estimation	
	1.7	Use of bite marks	
	1.7	Disaster victim identification (DVI)	
	1.9	Physical anthropology	
		Applied forensic sciences	
2 FUI		ONS OF FORENSIC ODONTOLOGISTS AS MANAGERS	
		_eadership	
		Quality management and safety	
		Workplace health and safety	
		Regulation and legal requirements	
		Utilisation of resources	
	2.6 I	nformation fundamentals	23
3 RES	SEAF	RCH AND SCHOLARSHIP	24
	3.1 /	Appraising and applying evidence	24
	3.2 (Contributing to research and innovation	25
	3.3 L	Learning and continuing professional development	26
	3.4 E	Educating others	27
4 PR	OFES	SSIONAL QUALITIES	28
	4.1 F	Professional interactions and communication	28
	4.2 E	Ethical principles	29
	4.3 F	Professional conduct	29
		Patient privacy, confidentiality and consent	
	4.5 [Disclosure and handling of error	31
		Public health promotion and protection	
	4.7 (Cultural safety	32

4.8 Self care	32
SECTION 3	34
APPENDICES	34
Appendix 1: Part I Assessment	35
Appendix 2: Part II Assessment	38
Appendix 3: Guidelines for completing the supervisor report	41
Appendix 4: Portfolio Requirements	42
Appendix 5: Forms and log pages	44
Appendix 6: Forensic Odontology Project Reports	58
Appendix 7: Assessment matrix	61

GLOSSARY

ANZFSS Australian and New Zealand Forensic Science Society

AuSFO Australian Society of Forensic Odontology

BEA Board of Education and Assessment

CbD Case-based discussion

CPDP Continuing professional development program

DOPS Directly observed practical skill

DVI Disaster victim identification

MPR Multi-Planar Reconstruction (from CT dataset)

OSCE Objective structured clinical examination

RCPA Royal College of Pathologists of Australasia

RPL Recognition for Prior Learning
WPBA Workplace-based assessment

SECTION 1

INTRODUCTION

The discipline of forensic odontology involves the application of extensive dental specific knowledge to legal and criminal issues. The work focuses primarily on human identification, disaster victim identification, age assessment, investigation of possible dentally related causes of or contributions to death, and injury interpretation including the examination of bite marks. There are opportunities to conduct research in the areas specific to forensic odontology, and in related legal and forensic areas.

PERSONAL CHARACTERISTICS NEEDED

A forensic odontologist needs to have:

- Broad dental experience
- Sound knowledge in dental anatomy and pathology including oral histopathology and comparative dental anatomy
- Sound underpinning knowledge in the natural sciences
- Sound knowledge in the forensic sciences
- Sound knowledge of the law and relevant legislation
- A methodical and analytical approach
- Good oral and written communication skills and interpersonal skills
- Ability to practise as part of a team as well as autonomously
- A high level of self-motivation
- · Ability to formulate and articulate well-balanced views
- Patience and attention to detail
- Emotional stability
- An understanding of aspects of bereavement
- An enjoyment and appreciation of the scientific basis of dentistry
- The ability and willingness to offer guidance and teaching to trainees in forensic odontology
- An inquiring mind, to initiate ethical research
- Personal honesty and integrity

GENERAL AIMS OF THE TRAINING PROGRAM

The general aims of the training program are set out below. These are elaborated as specific training outcomes and activities in Section 2.

By the time trainees complete the requirements for Fellowship, they should be able to demonstrate the entry-level competencies in forensic odontology as outlined by the Dental Board of Australia as related to each of the domains:

- 1. Professionalism
- 2. Communication and social skills
- 3. Critical thinking
- 4. Scientific and clinical knowledge
- 5. Patient care

Furthermore, the RCPA policy on patient expectations of pathologists specifies that pathologists will:

- Demonstrate and maintain competence
- Be respectful of patients
- Treat specimens respectfully
- Foster constructive collegiality and teamwork within the laboratory
- Be part of the medical team looking after patients
- Provide accurate and timely results
- Be professional in their approach
- Be involved in appropriate accreditation and quality activities
- Provide value for public and private expenditure.

The examinations for the Fellowship in Forensic Odontology are intended to certify professional expertise in forensic odontology at a level equivalent to fellowship in other disciplines.

ADMINISTRATIVE REQUIREMENTS

This handbook should be read in conjunction with the *Trainee Handbook - Administrative Requirements* on the College website.

Entry requirements

Trainees must be registered as dental practitioners with the Dental Board of Australia, or of Hong Kong, Singapore or Malaysia or the Dental Council of New Zealand and must be entitled to practise dentistry in his or her country of domicile. They must have practised dentistry for at least two years full-time or part-time equivalent after qualification.

Evidence of prior research training is mandatory, and this requirement must be satisfied by means of formal evidence provided to the College. There will be recognition of post-graduate coursework degrees and combined (coursework and research) degrees completed prior to and during training, including their research components. The Master of Forensic Medicine offered by Monash University is recommended, in particular the Forensic Odontology stream (3 years part-time equivalent), and may lead to exemptions from some assessments. Similarly, the Graduate Diploma in Forensic Odontology (1.0 FTE or part-time equivalent) at both The University of Adelaide and The University of Western Australia may also lead to exemptions from some assessments. Any of these qualifications will also satisfy the prior research requirement.

Training requirements

Training requirements for the Forensic Odontology training program are defined in Full Time Equivalents (FTE) rather than calendar years. To gain the Fellowship in Forensic Odontology a trainee requires a minimum of five (5) FTE years of certified training in sites or positions approved or accredited by the Board of Education and Assessment, and satisfactory completion of the assessment program detailed in this Handbook. There is no time limitation for completion of training. However, the Part II examination should be completed within 5 calendar years of passing or being granted exemption from Part I.

Throughout their training period, trainees should ordinarily maintain a 0.5 FTE (minimum 0.3 FTE) position in sites accredited for forensic odontology training by the RCPA Board of Education and Assessment. It is recommended that trainees also undertake relevant rotations in mortuary practice at RCPA accredited training sites for six (6) months FTE prior to the Part 1 examinations.

Any other concurrent employment should be related to forensic odontology such as general dental practice, or research and/or academic positions in dentistry. For such employment to be evaluated by the Principal Examiner towards accredited forensic odontology training (maximum 0.2 FTE to be accredited per calendar year) trainees should demonstrate active engagement in learning activities related to the Forensic Odontology learning outcomes on anatomy, dentistry and management, including maintaining a record of relevant cases and activities.

Please note that ordinarily, a maximum of four (4) calendar years is to be spent in any one accredited location over the course of the training program. Individuals should contact the College Registrar if a deviation from this requirement is sought e.g., a change in supervisor within the same institution may be considered in some cases as a different location, or due to circumstances brought on by a pandemic or enforced community restrictions on movement.

Appropriate formal training completed qualifications* and experience may be accepted in lieu of part or all of the requirements for Part I but may be subject to examination as determined by the Principal Examiner in Forensic Odontology on a case-by-case basis. A limited amount of training time (maximum 1.5 FTE years) may also be accredited based on a PhD or a master's degree by research in forensic odontology.

For accreditation of such learning, trainees should make an Application for a Training Determination prior to training registration. The Principal Examiner will evaluate the application based on comparison of competency standards achieved through academic programs/ previous practical experience and determine the training requirements and any retrospective accreditation. If trainees are completing these studies concurrent to their training and seeking accreditation, evidence of completion should be submitted for evaluation by the Principal Examiner when it becomes available.



SUPERVISION

All training must be supervised. More than one supervisor can be appointed, depending on location and specific expertise. The College recommends that any one supervisor be responsible for no more than two trainees.

Who can be a supervisor?

The supervisor will normally be a forensic odontologist who is a Fellow of the Faculty of Oral and Maxillofacial Pathology. However non-fellows may be approved by the Board of Education and Assessment if no Fellow is available. Normally, only one supervisor is nominated, but if the trainee spends significant periods working in an area where the supervisor has no personal involvement the supervisor must certify that suitable supervision is being provided. The supervisor must also ensure that adequate supervision is arranged in their absence.

In some circumstances shared supervision may be necessary, but there must be a nominated primary supervisor with overall responsibility. While it is not appropriate for supervision to be delegated to someone who is not a forensic odontologist, it may be appropriate for other senior pathology and scientific staff with relevant experience to sign off some workplace-based assessment forms.

The role of the supervisor

Supervisors should devise a prospective training and research program, both on initial registration and annually. This should be devised in collaboration with the trainee and submitted to the RCPA. Supervisors should also ensure that the trainee has sufficient time and opportunity to carry out the prescribed training activities.

Supervisors and others to whom aspects of training have been delegated, are expected to monitor and provide regular feedback on the development of the trainee's competence. Regular, formal, documented meetings with the trainee should occur at least every three months. Supervisors should observe trainees' practical performance and interaction with other scientists, peers and clinicians; and review resultant reporting. This may be delegated to other trainers where appropriate, e.g., when the trainee is on secondment to another mortuary or facility for a segment of training.

The formal duties of supervisors, such as requirements to report the trainee's progress to the Board of Education and Assessment, are described in the RCPA Induction Manual for Supervisors and the RCPA policy on the Role of the Supervisor. Please refer to the most current version of these documents for detailed information (see RCPA website).

ASSESSMENT

The assessment requirements summarised below are presented in more detail in the appendices.

Formal Examinations

- Forensic Odontology Part I Examination. This examination has an emphasis on the theoretical, practical and interpretative aspects of investigations in all fields of forensic odontology. The Part I examination is taken after at least 2 FTE years of training in forensic odontology. See Appendix 1 for details.
- Forensic Odontology Part II Examination. Trainees who pass Part I are eligible to sit for the Part II examination, usually in the final year of training. See Appendix 2 for details.

All durations refer to full-time training or part-time equivalent in an accredited facility.

Forensic Odontology Project Reports

Three (3) reports demonstrating substantive casework and research in Forensic Odontology must be completed after passing the Part I examination and submitted before sitting for the Part II examination. These must include one literature review on a current issue in Forensic Odontology of publishable standard, one case report of publishable standard, and one research paper of publishable standard resulting from the trainee's research project. Publications in Forensic Odontology completed during the period of training may be considered as partial fulfilment of the Report requirement.

A trainee with a PhD in Forensic Odontology or a candidate with a Masters by Research in Forensic Odontology may be exempt, from the research report requirement.

See Appendix 6 for detailed requirements.

Portfolio

The portfolio is a collection of *workplace-based assessment* forms, the *case book*, and other documents that provide evidence that trainees have successfully completed a range of activities that form part of their daily work in the mortuary and related locations. The portfolio records the trainee's progress in developing technical skills and professional values, attitudes and behaviours that are not readily assessed by formal examinations. The periodic and annual supervisor reports are also kept in the portfolio.

The *workplace-based assessments* include Direct Observation of Practical Skills (DOPS), Case-based Discussions (CbDs), and case reports. Trainees have responsibility for initiating the workplace-based assessments and negotiating a convenient time for each assessment with a suitably qualified assessor. Assessments should be able to be undertaken regularly without significant disruption to workplace productivity. Trainees are responsible for providing the appropriate forms and ensuring that they have completed the required number of assessments by the prescribed dates.

The *case book* (to be completed in Part II) details the trainee's experience with a range of cases encountered in routine forensic odontology practice as well as in the trainee's area of specialisation. Documentation on each case includes an introduction, a report of the clinical findings obtained through history and examination, copies of medico-legal forms used, working notes, the Coroner's report or legal statement of evidence if relevant, and a one-page comparison report and a summary.

Portfolio requirements are described in Appendix 4.

Annual Review of Progress – Supervisor Report

Trainees must submit a supervisor report for each year of training, including periods of rotation Please refer to Appendix 3 for specific requirements.

RESOURCES

These lists are not exhaustive, and the publications are suggestions only. Trainees are encouraged to read widely and keep up to date in general dentistry, radiology and oral pathology as well as forensic odontology.

Textbooks

- Adserias-Garriga J (2019) Age Estimation: A Multidisciplinary Approach. Elsevier, ISBN 0128144912
- 2. 'Australian Society of Forensic Odontology, Forensic Odontology Disaster Victim Identification Guide' http://www.ausfo.org.au/wp-content/uploads/ausfo-dvifog-version-3-feb-2012-1.pdf
- 3. Baker BJ & Dupras TL & Tocheri MW (2005) The Osteology of Infants and Children. Texas A&M University Press. ISBN 9781585444281
- 4. Bass W (1995) *Human Osteology A Laboratory and Field Manual* Missouri Archaeological Society, Columbia. ISBN 10: 0943414962
- 5. Bilo RAC, Robben SGF & Van Rijn RR (2010) Forensic Aspects of Paediatric Fractures: Differentiating Accidental Trauma from Child Abuse. Springer. ISBN 10: 3540787151
- 6. Black S, Aggrawal A & Payne-James A (eds) (2010) Age Estimation in the Living The Practitioners Guide Wiley London. ISBN 978-0470519677
- 7. Black S, Sunderland G, Hackman L & Mallet X (2011) *Disaster Victim Identification, Experience and Practice* CRC Press. ISBN 9781420094121
- 8. Blenkin M (2009) Forensic Odontology and Age estimation: An introduction to concepts and methods VDM Verlag Saarbrucken. ISBN-10: 3639198786
- 9. Bowers M (2010) Forensic Dental Evidence Elsevier, Academic Press. ISBN: 9780123820006
- Brunette DM (2020) Critical Thinking Understanding and Evaluating Dental Research (3rd Ed) Quintessence Carol Stream. ISBN: 978-0-86715-800-7
- 11. Burke MP (2012) Forensic pathology of Fractures and Mechanisms of Injury- Post Mortem CT scanning. CRC press. ISBN-10: 1439881480
- 12. Bush M.A., Miller, R.G., Bush, P.J. and Dorian, R.B.J. (2009) Biomechanical factors in human dermal bitemarks in a cadaver model. *Journal of Forensic Sciences*, 54(1): 167–176
- 13. Clement JG & Ranson DL (eds) (1998) Craniofacial Identification in Forensic Medicine Arnold. London. ISBN-10: 0340607599.
- 14. Clement JG & Marks M (eds) (2005) Computer Graphic Facial Reconstruction (1st Ed) Elsevier Academic Press. ISBN: 9780124730519
- 15. Cox M & Mays S (Eds) (2000) *Human Osteology in Archaeology and Forensic Science* Greenwich Medical Media. ISBN-10: 052169146
- DiMaio VJ & DiMaio D (2001) Forensic Pathology (2nd ed) CRC Press. ISBN 0-8493-0072-
- 17. de Micco, F., Martino, F. and Campobasso, C.P. (2020). Ethical issues in age assessment by the third molar development. *Australian Journal of Forensic Sciences*, AHEAD-OF-PRINT. 1-12. DOI:10.1080/00450618.2020.1789220.
- 18. Dolinak D et al (2005) Forensic Pathology: Principles and Practice Elsevier Academic Press. ISBN: 9780122199516
- Dupras TL, Schultz JJ, Wheeler SM, Williams LJ (2012) Forensic Recovery of Human Remains: Archaeological Approaches (2nd Ed) CRC Press. ISBN: 978-1-4398-5030-5
- 20. Eismann K, Duggan S, Grey T (2010). *Real World Digital Photography.* (3rd Ed). Peachpit Press, ISBN-10: 0-321-70099-6
- 21. Fazekas IG & Kosa F (1978) Forensic Fetal Osteology Akademiai Kiado, Budapest. ISBN-10: 9630514915
- 22. Forrest, A.S. (2019). Forensic odontology in DVI: current practice and recent advances. *Forensic Sciences Research*, 4(4): 316-330.
- 23. Freckelton I & Ranson D (2006) *Death Investigation and the Coroner's Inquest* Oxford University Press, Melbourne. ISBN 9780195507003
- 24. Hill IR et al (1984) Forensic Odontology. Its Scope and History Academische Cooperatief s.v. Leuven, Belgium. ISBN 0950917818

- 25. Hillson & Simon (1996) *Dental Anthropology* Cambridge University Press. ISBN-10: 0521564395
- 26. Hunter J, Simpson B & Sturdy-Colls C (2013) Forensic Approaches to Buried Remains. Wiley Blackwell. ISBN: 978-0-470-66630-2
- 27. 'INTERPOL DVI Guide and resources,' https://www.interpol.int/
- 28. Iscan MY & Steyn M (eds) (2013) *The Human Skeleton in Forensic Medicine (3rd ed)* Charles C Thomas, Springfield Illinois. ISBN-10: 0398088780
- 29. Keiser-Nielsen S (1980) Person Identification by Means of the Teeth John Wright, Bristol
- 30. Keiser-Nielsen S (1992) *Teeth that told. A section of cases in which teeth played a part* Odense University Press, Odense. ISBN-10: 8774928651
- 31. Kumar V, Abbas AK, Fausto N & Aster J (eds) (2014) *Robbins & Cotran Pathologic Basis of Disease.* 9th ed. WB Saunders Philadelphia. ISBN: 9780323531139
- 32. Levy DA & Harcke TH (2011) Essentials of Forensic Imaging: A text Atlas. CRC Press. ISBN 9780367577025
- 33. Mânica, S. and Gorza, L. (2019). Forensic odontology in the 21st century Identifying the opinions of those behind the teaching. *Journal of Forensic and Legal Medicine*, 64: 7–13.
- 34. Mou, Q.-N., et al., Three-dimensional superimposition of digital models for individual identification. Forensic Science International, 2021. 318: p. 110597.
- 35. National Academy of Forensic Science (2009) Strengthening Forensic Science in the United States: A Path Forward. National Research Council. ISBN: 0-309-13131-6. https://www.ncjrs.gov/pdffiles1/nij/grants/228091.pdf
- 36. Nelson SJ (2009) Wheeler's Dental Anatomy, Physiology & Occlusion WB Saunders Philadelphia. ISBN: 9780323638784
- 37. Pan American Health Organisation (2016) *Management of Dead Bodies after Disasters: A Field Manual for First Responders. Second (revised) Edition* PAHO Washington DC. ISBN 978-92-75-31924-6. https://iris.paho.org/handle/10665.2/31295
- 38. 'President's Council of Advisors on Sci. & Tech., Exec. Office of the President. (2016). 'Forensic science in criminal courts: ensuring scientific validity of feature comparison methods' https://obamawhitehouse.archives.gov/sites/default/files/microsites/ostp/PCAST/pcast_forensic_science_report_final.pdf
- 39. Redmayne M Justice (2001) Expert Evidence and Criminal Justice Oxford University Press. ISBN: 0198267800
- 40. Re, G.L., Argo, A., Midiri, M. and Cattaneo, C. (Eds) (2020). *Radiology in Forensic* Medicine: From Identification to Post-Mortem Imaging. (1st Ed.), Switzerland, Springer Nature.
- 41. Reesu GV, Woodsend B, Mânica S, Revie GF, Brown NL, Mossey PA. **Automated Identification from Dental Data (AutoIDD): A new development in digital forensics**. Forensic Sci Int. 2020 Apr;309:110218. doi: 10.1016/j.forsciint.2020.110218. Epub 2020 Feb 22. PMID: 32169756.
- 43. Ruder, T.D., Thali, Y.A., Rashid, S.N.A. et al. (2016). Validation of post-mortem dental CT for disaster victim identification. *Journal of Forensic Radiology and Imaging*. 5: 25–30.
- 44. Sampson HW & Montgomery MD & Henryson GL (2007) *Atlas of the Human Skull.* Texas A&M University Press (2nd Ed) ISBN: 0890964882
- 45. Saukko P & Knight B (2015) Knights Forensic Pathology (4th Ed) CRC Press. ISBN: 9780340972533
- 46. Schaefer M, Black S & Scheuer (eds) (2009) *Juvenile Osteology A Laboratory and Field Manual* Elsevier London. ISBN 10: 0123746353
- 47. Scheid RC (ed) (2020) Woelfel's Dental Anatomy Its Relevance to Dentistry with Navigate 2 Advantage Access. Jones & Bartlett. ISBN 9781284218244
- 48. Schotsmans, EM, Marquez-Grant, N & Forbes, S (Eds) (2017). *Taphonomy of human remains forensic analysis of the dead and the depositional environment.* (9th Ed.) Wiley-Blackwell. ISBN: 978-1-118-95332-7
- 49. Senn DR & Stimson PG (2009) Forensic Dentistry (2nd Ed). CRC Press. ISBN 10: 1420078364

42.

- Senn, D.R. and Weems, R.A. (Eds) (2021). Manual of Forensic Odontology.
 (5th ed) American Society of Forensic Odontology. Boca Raton, London, New York, CRC Press.
- 51. Sheets H.D., Bush, P.J. and Bush, M.A. (2012) Bitemarks: distortion and covariation of the maxillary and mandibular dentition as impressed in human skin. *Forensic Science International*, 223(1–3): 202–207.
- 52. Sheets, H.D., Bush, P.J. and Bush, M.A. (2013). Patterns of variation and match rates of the anterior biting dentition: characteristics of a database of 3D scanned dentitions. *Journal of Forensic Sciences*, 58(1): 60-68.
- 53. Silver WE & Souviron RR (2009) *Dental Autopsy.* CRC press. ISBN 10:1420070134.
- 54. Spitz WU (Ed) (2006) Spitz and Fisher's Medicolegal Investigation of Death Guidelines for the application of pathology to crime investigation. Charles C Thomas, Springfield Illinois. ISBN: 0398093121
- 55. Stimson PG & Mertz CA (1997) Forensic Dentistry CRC Press. ISBN 10: 1420078364
- 56. Taylor JA & Keiser JA (2016) Forensic Odontology Principles and Practice. Wiley Blackwell. ISBN 10: 1118864441
- 57. Thali MJ, Viner MD, Brogdon BG (2011) *Brogdon's Forensic Radiology (2nd Ed) CRC Press.* ISBN 13: 978-1420075625
- 58. Thompson T & Black S (2007) Forensic Human Identification (an introduction) CRC Press. ISBN 10: 9780849339547
- 59. Trivedi DN, Shah ND, Kothari AM & Thanki, RM (2019) Dental Image Processing for Human Identification. Springer. ISBN 978-3-319-99470-3
- 60. Wecht CH & Okoye MI (2007) Forensic Identification and management of Mass Disasters Lawyers and Judge Publishing Company. ISBN 10: 1-933264-41-1
- 61. White TD & Folkens PA (2005) *The Human Bone Manual* Elsevier, London. ISBN 10: 0120884674
- 62. Whittaker DK & MacDonald DG (1989) *A Colour Atlas of Forensic Dentistry*. Wolfe Medical Publications Ltd, London. ISBN 10: 0723409617
- 63. Willems G (2000) Forensic Odontology (proceedings of the European IOFOS millennium meeting, Leuven, Belgium) Leuven University Press. ISBN 10: 9058670511

Journals

American Journal of Forensic Medicine and Pathology Australian Journal of Forensic Sciences International Journal of Legal Medicine Journal of Forensic Odontostomatology Medicine, Science, and the Law Journal of Forensic Sciences
Forensic Pathology reviews
Forensic Science International
Forensic Science Medicine and Pathology
Science and Justice

SECTION 2

LEARNING OUTCOMES AND RECOMMENDED TRAINING ACTIVITIES

In Section 2, four major functions of forensic odontologists are elaborated as sets of training outcomes and suggested activities. Trainees are not expected to do every activity in the list. They should use their judgement to select those that are most likely to achieve the outcomes, being mindful of the range of learning opportunities offered by their particular laboratory. Familiarity with new and emerging topics that may not appear in the Handbook is also expected.

1 DISCIPLINE-SPECIFIC ACTIVITIES OF FORENSIC ODONTOLOGISTS	11
1.1 Foundation knowledge of forensic odontology	11
1.2 Anatomy and morphology	12
1.3 Forensic pathology	12
1.4 Human identification	13
1.5 Mortuary techniques	14
1.6 Dental age estimation	15
1.7 Use of bite marks	15
1.8 Disaster victim identification (DVI)	16
1.9 Physical anthropology	16
1.10 Applied forensic sciences	17
2 FUNCTIONS OF FORENSIC ODONTOLOGISTS AS MANAGERS	18
2.1 Leadership	18
2.2 Quality management and safety	18
2.3 Workplace health and safety	20
2.4 Regulation and legal requirements	21
2.5 Utilisation of resources	22
2.6 Information fundamentals	23
3 RESEARCH AND SCHOLARSHIP	24
3.1 Appraising and applying evidence	24
3.2 Contributing to research and innovation	
3.3 Learning and continuing professional development	26
3.4 Educating others	27
4 PROFESSIONAL QUALITIES	28
4.1 Professional interactions and communication	28
4.2 Ethical principles	29
4.3 Professional conduct	29
4.4 Patient privacy, confidentiality and consent	30
4.5 Disclosure and handling of error	
4.6 Public health promotion and protection	
4.7 Cultural safety	
4.8 Self care	32

1 DISCIPLINE-SPECIFIC ACTIVITIES OF FORENSIC ODONTOLOGISTS

Central to the role of the forensic odontologist is the interaction between investigating police, pathologists and coroners who have requested an opinion as to the identity of a deceased individual, documentation and interpretation of an injury, advice on a potential dental cause of or contribution to death, a dental age estimation or the analysis and possible comparison of a bite mark injury. Experienced forensic odontologists must demonstrate a range of knowledge, skills and abilities as described in the general aims of the training program (page 2).

By the end of training, trainees are not expected to have developed expertise in all areas, however, they should be technically fully knowledgeable and competent in the routine aspects of human identification, injury interpretation, oral and dental pathology, dental age estimation and bite mark investigations. They should also have observed and reflected on the way senior odontologists fulfil the role of forensic specialist and have participated in the more demanding aspects of the role as appropriate for the stage of training assuming increasing levels of responsibility as they progress.

The following tables of learning outcomes and suggested activities are a guide as to what trainees should have achieved at three stages of training: foundations, core and transition to fellowship.

1.1 Foundation knowledge of forensic odontology

Foundations	Core	Transition to Fellowship
Be able to explain the history of forensic odontology	Demonstrate thorough familiarity with the history of forensic odontology and understand the perspective it provides on current practice	
Describe the principles, scope, and practice of forensic odontology	Have perspective of the principles, scope and practice of forensic odontology based on examples from practice	Apply the principles and practice of forensic odontology in the entire scope of forensic odontology
Identify the roles and responsibilities of the forensic odontologist	Be familiar with the major tooth identification systems used in dental charting worldwide and use FDI dental notation for charting and reports	Identify and work effectively with the major tooth identification systems used worldwide in dental charting
	Explain the fundamentals of digital colour and image resolution respecting evidential requirements	
Explain the requirements of and demonstrate basic digital imaging techniques used in forensic odontology	Demonstrate competence with digital image editing software in accordance with evidential requirements	Select and apply appropriate digital imaging techniques where required in forensic odontology casework
Discuss the principles related to both forensic odontology case management and use of evidence		Apply the principles related to forensic odontology case management and use of evidence
Consider workplace stress and well-being in forensic work	Value strategies to mitigate stress in forensic odontology practice	Recommend, undertake, and support strategies to mitigate stress in forensic odontology practice

Activities

Select activities that are appropriate to your training environment and, if relevant, keep a record for your portfolio e.g.,

Read widely and critique using authoritative sources including texts and journal papers
covering history, principles and practice of forensic odontology and principal tooth
identification systems in use worldwide.

- Attend courses on digital imaging and digital colour as well as the use of major digital imaging programs including Adobe Photoshop.
- Work with experienced forensic odontologists and forensic pathologists to gain familiarity with case management systems in your institution and those you visit.
- Work with appropriate staff in your institution to understand the sources and signs of workplace stress and develop knowledge of mitigating strategies.

1.2 Anatomy and morphology

Foundations	Core	Transition to Fellowship
Demonstrate knowledge of human anatomy	Demonstrate detailed knowledge of human head and neck anatomy, including the ability to undertake dissection	Apply knowledge of human anatomy in the diagnosis of dentally related pathology and post-mortem dissection as necessary
Recognise and describe basic features of human dental anatomy and morphology including embryology and histology	Demonstrate advanced knowledge of human oral histology	
Demonstrate knowledge of comparative dental and oral anatomy	Demonstrate application of knowledge of comparative dental and oral anatomy in supervised forensic casework involving determining the species of origin of dental remains and in bite mark casework	Apply knowledge of comparative oral and dental anatomy in forensic odontology casework including bite mark casework

Activities

Select activities that are appropriate to your training environment and, if relevant, keep a record for your portfolio e.g.,

- Read and study authoritative relevant texts and atlases in anatomy, embryology, and histology.
- Use correct terminology in describing structures and features during the recording of pathological and dental examinations.
- Attend autopsies to gain an understanding of relevant post-mortem anatomy and work with 2D and 3D radiological images to understand radiological anatomy.
- Read widely on comparative dental anatomy.

1.3 Forensic pathology

Foundations	Core	Transition to Fellowship
Explain medico-legal autopsy		
Recognise and explain post-mortem changes in the deceased		
Examine both oral pathology and oral medicine	Outline the common causes of sudden death in adults and children	
	Discuss trauma to the head and neck, with reference to pathologic assessment, recording and analysis	
	human oral histopathology	Apply advanced knowledge of human oral histopathology to the practice of forensic odontology
	Demonstrate the ability to write a quality oral histopathology report	Write histopathology reports in as required in forensic odontology casework

•	Examine and interpret orofacial trauma during forensic odontology casework
Explain common findings in child abuse cases including reporting requirements	

Activities

Select activities that are appropriate to your training environment and, if relevant, keep a record for your portfolio e.g.,

- Observe forensic autopsies.
- Participate in trauma investigations of oral and perioral tissues with more experienced forensic odontologists and forensic pathologists.
- Undertake tissue excision and histopathological examination of relevant lesions and document findings.
- Participate in investigations of child abuse under guidance from forensic odontologists and forensic pathologists.
- Record all casework in Portfolio.

1.4 Human identification

Foundations	Core	Transition to Fellowship
Explain the principles of forensic human identification	Determine identification by applying appropriate digital comparison and superimposition techniques including for 3D digital dental models	Apply appropriate digital image techniques including 3D digital techniques in forensic odontology human identification casework.
Incorporate social and cultural factors during forensic human identification	Explain the processes of forensic facial approximation, its purpose, and potential contributions in human identification	
Collect and record ante- and post-mortem dental information using INTERPOL protocols	Critique the different methods and related issues for denture marking in forensic identification	Advocate for denture and removable appliance marking with identifying information using accepted techniques
Complete a dental reconciliation (both manually and using appropriate computer software)	Present evidence of forensic odontology identification in the appropriate case report format	
Describe the use and retrieval of DNA for forensic identification of human remains and dental structures		
Explain the role of fingerprint identification		

Activities

- Read textbooks and journal papers from respected, peer reviewed journals to understand issues in applying forensic odontology techniques to human identification.
- Undertake comparison procedures including digital imaging procedures and 3D digital comparison and superimposition techniques for identification purposes.
- Utilise INTERPOL forms for recording dental features of AM and PM dentitions.
- Determine the level of confidence in dental identification with reference to INTERPOL standards.
- Read widely on current techniques in denture marking and the issues in relation to this.
- Work with forensic biologists to prepare teeth for DNA extraction.
- Document all casework in Portfolio.

1.5 Mortuary techniques

Foundations	Core	Transition to Fellowship
Perform and document dental post-mortems		Perform and document dental post-mortems
Justify and demonstrate use of techniques for preserving and documenting post-mortem dentition in intact, incinerated, immersion, decomposed, fragmented, and skeletonised cases		
Demonstrate and discuss the principles and practice of alternate light source use including during digital photography in forensic odontology		Apply alternate light source imaging and photography as appropriate in forensic odontology casework
Prepare both ante- and post- mortem dental impressions and model fabrication with correct labelling	Prepare both ante- and post-mortem intraoral scans to create 3D digital models of full and partial dentitions	Apply comparison and superimposition of 3D digital dental models to forensic odontology casework
Justify and apply available radiological techniques in forensic dental identification		Apply plain film radiography and use of CT data in forensic odontology casework
Demonstrate and discuss the use of CT imaging to provide appropriate access to the dentition without the use of invasive techniques		
Discuss mortuary work health and safety procedures and demonstrate compliance		Comply with workplace health and safety requirements
	Demonstrate and discuss the principles and practice of forensic photography including the manual operation of DSLR camera, appropriate use of lighting to avoid shadow and specular reflection, and correct use of forensic scales to meet the requirements of forensic imaging	
	its purpose in relation to documenting	Apply forensic photography techniques as required in forensic odontology casework

Activities

- Read and critique the processes, procedures, and interpretation in dental autopsies.
- Perform and fully document dental autopsies under guidance from more experienced forensic odontologists.
- Work with forensic radiographers and more experienced forensic odontologists to become familiar with performing and interpreting radiological techniques and undertake these during dental autopsies.
- Undertake courses on photography and work with forensic photographers to gain experience in use of the use of forensic scaling aids and use of appropriate lenses and choice of vantage point to minimise introduced distortions during photography.

• Perform photography during supervised case work and document all casework in Portfolio.

1.6 Dental age estimation

Foundations	Core	Transition to Fellowship
Explain normal dental development and its chronology	Demonstrate the ability to undertake dental age estimation using all the major accepted radiographic and nonradiographic techniques	Select and apply appropriate, accepted age estimation techniques in forensic odontology practice
Discuss age changes related to the teeth and jaws	Discuss the statistical derivation and application of age range estimates	
	Discuss the statistical reasons why it is inappropriate to apply multiple age estimation techniques in a single estimation case and triangulate the results to obtain a consensus estimate	
dental age estimation methods for	Apply dental age estimation techniques to simulated cases of individuals from different geographic origins	

Activities

Select activities that are appropriate to your training environment and, if relevant, keep a record for your portfolio e.g.,

- Read widely using textbooks and read and critique journal papers in respected, peerreviewed journals.
- Apply statistical knowledge to understand the concept of age ranges in age estimation and its limitations.
- Read and understand issues relating to ethical practice.
- Undertake cases (simulated and/or real) with more experienced forensic odontologists.
- Ensure casework is logged in Portfolio.

1.7 Use of bite marks

Foundations	Core	Transition to Fellowship
Discuss the history of bite mark analysis and comparison with reference to domestic and international cases		
Discuss the principles of bite mark analysis and comparison in injuries inflicted by both human and non-human dentitions	Complete casework for bite mark analysis and, where appropriate, provide comparison using accepted evidence-based techniques in real or simulated cases	
Explain the limitations of using bruise characteristics to estimate time since injury	Discuss the limitations of bite mark case outcomes and their evidential value	
_	simulated bite mark analyses and comparisons to present methods and outcomes	Apply knowledge and practical skill in bite mark analysis and comparison techniques as appropriate in forensic odontology casework with a full understanding of the limitations of the techniques and their outcomes

Activities

Select activities that are appropriate to your training environment and, if relevant, keep a record for your portfolio e.g.,

• Read widely using texts and literature from respected peer-reviewed sources.

- Gain guided experience with practical skills in analysis and comparison and work with more experienced forensic odontologists on real and simulated cases including historical cases.
- Review and critique court transcripts of forensic odontology evidence given in bite mark cases.
- Ensure that casework is logged in Portfolio.

1.8 Disaster victim identification (DVI)

Foundations	Core	Transition to Fellowship
Discuss the history of DVI		
Describe the various phases of the DVI process as documented by INTERPOL		
Explain how and why the DVI process and outcomes may differ in international DVI operations		
Discuss the role of the Forensic Odontology Team in relation to Police Command and Control of the entire DVI operation		
Describe the specific role of the Forensic Odontologist in a DVI operation, including in the antemortem, post-mortem and reconciliation processes	Evaluate the role of the forensic odontologist in the ante-mortem, post-mortem and reconciliation sections in a DVI operation (real or simulated)	Apply knowledge of accepted DVI techniques in forensic odontology to DVI casework in all roles within the scope of forensic odontology DVI practice
Discuss the roles of Forensic Odontology Team Leaders in DVI		
Appraise currently available computer software aids to DVI and their advantages, limitations and use in the DVI process		

Activities

Select activities that are appropriate to your training environment and, if relevant, keep a record for your portfolio, e.g.,

- Read and become thoroughly familiar with INTERPOL documents and forms relating to mass disaster identification processes and procedures.
- Undertake all forensic odontology roles in real and/or simulated DVI operations.

1.9 Physical anthropology

Foundations	Core	Transition to Fellowship
anthropology to determine the ancestry, sex, and age-estimate of a skeleton	Critique the principles of physical anthropology to determine the ancestry, sex, and age-estimate of a skeleton, including reporting the outcomes of an examination	
Describe the forensic examination of ancient dental remains		

Activities

- Study relevant texts, journals, and participate in casework with forensic anthropologists.
- Work with more experienced forensic odontologists on cases involving suspected ancient remains.

1.10 Applied forensic sciences

Foundations	Core	Transition to Fellowship
Explain local crime scene protocols and act in accordance		
Discuss the role of forensic pathology in estimating the time since death		
Discuss the role of forensic entomology in estimating the time since death		

Activities

- Attend relevant meetings, conferences, workshops, lectures.
- Study relevant journals and participate in Journal Club.
- Discuss with experts in other areas including forensic pathologists, forensic entomologists, forensic biologists, police.

2 FUNCTIONS OF FORENSIC ODONTOLOGISTS AS MANAGERS

With growing experience, forensic odontologists are expected to assume managerial responsibilities. In this role they are expected to:

- Supervise and manage activities, with particular reference to operator safety and quality assurance, within the confines of finite resources
- Ensure effective work practices through staffing and by developing policies and procedures based on appropriate use of information and evidence
- Demonstrate leadership in an organisation to promote efficient service and safe practices

By the end of training, trainees are not expected to be fully competent in all these areas, however, they are expected to have become familiar with managerial tasks by observing and reflecting on the duties of senior odontologists, and to have participated in managerial activities that are appropriate for their stage of training assuming increasing levels of responsibility as they progress.

The following tables of learning outcomes and suggested activities are a guide as to what trainees should have achieved at three stages of training: foundations, core and transition to fellowship.

2.1 Leadership

Foundations	Core	Transition to Fellowship
Describe how self- awareness, self-reflection, and self-management are important to developing leadership skills	Observe and describe leadership styles as they apply to the forensic team as a basis for understanding your own leadership style, including strengths, weaknesses, and biases	Be aware of key health policy and organisational issues affecting forensic odontology practice, and the roles of professional bodies, clinical governance and leadership in bringing about improvements when required
Participate in orientation and training protocols for new staff (where applicable)	Demonstrate strategies for reducing workplace conflict and conflict resolution	Develop and demonstrate the skills needed to mentor, supervise and provide constructive feedback to staff
Demonstrate behaviour that is in accordance with equal opportunity and anti-discrimination practices in the workplace		
Discuss the role of teamwork and be an effective team member in forensic odontology practice		

Activities

Select activities that are appropriate to your training environment and, if relevant, keep a record for your portfolio e.g.,

- Participate in departmental and institutional management meetings.
- Participate in the RCPA Trainees' Committee or network-based trainee committees.
- Participate in leadership roles for external organisations, e.g., sporting, or cultural. Seek mentorship to develop leadership qualities.

2.2 Quality management and safety

Foundations	Core	Transition to Fellowship
Demonstrate a commitment to quality improvement and best practice in forensic odontology	Actively contribute to team efforts in the improvement of the practice of forensic odontology	Apply the processes of quality improvement to contribute to improving forensic odontology

Describe how errors may arise, and report any concerns about possible errors to a senior person	Describe basic processes for investigation, corrective action and prevention of error, and report errors or adverse events, recognising the learning opportunities that arise from addressing them	Be able to troubleshoot and evaluate errors and discrepancies, contribute if required to root cause analysis of adverse events, and recommend strategies to improve practice
Understand the importance of identity and integrity of the body and verify the identity by case number if identity is not established	Consistently check identity and integrity of the body, independently obtain clinical information when needed, incorporate other resources such as radiology, and handle deviations from policies with direct supervision from senior personnel	Recommend strategies to ensure the integrity of all steps involved in forensic odontology casework
Recognise the value of auditing of forensic odontology post-mortem reports at both local and national level	Have knowledge of the role of the critical conclusions check, corroboration, and the second opinion	Participate in internal and external quality assurance and peer review activities, apply strategies to improve your own performance, and recommend strategies to improve team performance
Understand the requirement for external quality assurance for forensic odontology casework and mortuary practice	Identify external quality assurance, technical performance and proficiency testing schemes and standards, and requirements for compliance	Be able to carry out office procedures including quality documentation for NATA/IANZ or other relevant accreditation of laboratories and the mortuary
Be aware of the need for a planned and controlled process in implementing new technology	Describe general processes for implementing new technology	Describe steps involved in implementing new technology, including instrument and test selection, verification, implementation, validation, and reference range determination
Demonstrate knowledge of the requirements for collection and management of forensic samples and evidence	Discuss contextual bias and confirmation bias in forensic science with reference to the literature	
Demonstrate appropriate quality control practices	Plan, document, apply and review quality assurance and improvement strategies in the practice of routine forensic odontology and in disaster victim identification activities	
Recognise the role of accreditation and participate in the process (where appropriate)		

Activities

- Complete the RCPA Quality Management eLearning module.
- Access relevant websites and review the roles and standards of the National Association of Testing Authorities (NATA) or International Accreditation New Zealand (IANZ), ISO 15189 or other relevant local, national and international laboratory accreditation bodies and registration requirements.
- Read current literature on quality assurance strategies, risk management, and evidencebased practice.
- Participate in external quality assurance activities. Interpret reports and discuss sources of variation in the results of conclusions from different forensic odontology practitioners.
- Participate in a quality audit, review the audit assessment reports of your department and identify any contentious issues.

- Participate in the implementation of a plan for testing and evaluating new technology or advances that may improve the quality of forensic odontology practice.
- Participate in workflow checks to ensure effective and efficient operational function.
- Participate in forensic pathology and forensic odontology case review meetings.

2.3 Workplace health and safety

Foundations	Core	Transition to Fellowship
Locate safety manuals and equipment and comply with all safety directions including use of appropriate personal protective equipment, waste disposal, reporting of all hazards and safety-related incidents, and actions for exposures in the laboratory, mortuary or at the scene	Explain and act in accordance with relevant workplace health and safety legislation and departmental requirements, especially relating to biohazard, chemical, fire and physical safety, and in relation to specific tissues and procedures encountered in the laboratory, mortuary or at the scene, contributing to staff protection in the event of an adverse event	Demonstrate a high level of understanding of workplace health and safety risks, and the ability to evaluate and plan processes for assessing risk, investigating, and reporting hazards, in accordance with ethical and legal requirements
Demonstrate understanding of and commitment to implementing workplace health and safety procedures involved in forensic odontology practices, whether in the mortuary or elsewhere, to protect self and others against infection injury, radiation, toxin, gas, chemical, electrical and fire hazards and adverse psychological reactions	Suspect and identify specific risks and hazards associated with mortuary practice, including those that are not openly stated (e.g., defibrillators, Creutzfeldt-Jacob disease, tuberculosis)	Recommend strategies to minimise health and safety risk, including concepts of mortuary design
Collect, transport, store and dispose of biological and hazardous materials safely, seeking advice if needed		Explain local, national and international regulatory frameworks surrounding the collection, packaging, transport, storage and disposal of biological and hazardous materials
Evaluate incident reports and near misses to identify opportunities for improvements in practice		
Demonstrate actions taken in the event of exposure to hazards within the candidate's institution		

Activities

- Complete the mandatory personal safety checklist in the trainee handbook
- Complete the RCPA Laboratory Safety eLearning module
- Participate in workplace health and safety training as soon as possible after commencing work in the laboratory or mortuary, particularly in relation to biological, chemical and fire safety, first aid and resuscitation
- Locate and ensure ability to use equipment for biological, chemical and fire safety, first aid and resuscitation
- Analyse incident reports and near misses to identify opportunities for improvements in practice

2.4 Regulation and legal requirements

Foundations	Core	Transition to Fellowship
Refer and adhere to the law (particularly the Coroner's Act and the Human Tissue Act) and relevant ethical codes and guidelines relating to death investigation, provision of reports, opinions and evidence, tissue removal and retention including teeth, and confidentiality	Demonstrate developing knowledge of the structure of the Australian legal system and the law relevant to forensic odontology with particular reference to the jurisdiction of practice	Demonstrate high level knowledge of Criminal law, including: o the structure of the legal system o principles of criminal law including mens rea and actus reus, o homicide law o the law relating to assault o rules of expert evidence
Discuss the relevant legislation relating to expert witness, privacy laws and Coroners Acts in Australia and jurisdiction of practice	Explain the roles of Coroners, police, forensic scientists and expert witnesses, and court standards on the admissibility of evidence	
Comply with legal and risk management requirements in your workplace, seeking advice from senior staff members if in doubt	Identify sources of information in your jurisdiction regarding a range of legal requirements applicable to forensic odontology practice, including privacy, handling of information and specimens, notifiable diseases, copyright and intellectual property, workplace health and safety, employment provisions and anti-discrimination law	Apply and explain to others the relevant legislation in your jurisdiction
Be aware of and comply with requirements for maintaining dental registration in your place of domicile		Be aware of requirements for registration of dental specialists, CPD standards, credentialing, scope of practice, and other undertakings relevant to your jurisdiction
Discuss protocols and procedures for giving court evidence as an expert witness	Demonstrate the ability to write expert legal reports for submission in evidence to courts	
Participate in moot court training and assessment	Demonstrate the ability to give clear and unambiguous evidence in a moot court situation	
Discuss the role of the Police in relation to Forensic Odontology casework		
Describe the elements of appropriate dental record keeping		
Discuss and maintain a chain of evidence		
Demonstrate knowledge of registration requirements of necessary equipment and licences to operate		

Explain the potential for litigation and the role of forensic odontologists as defendants or consultants, and apply appropriate risk management strategies to prevent dispute		
Be aware of potential risks for litigation in dental and forensic odontology practice and seek advice as required	Identify jurisdictionally relevant sources of help and information regarding dental litigation	Operate with awareness of the potential for litigation and the role of forensic odontologists as defendants or consultants, and apply appropriate risk management strategies
Comply with workplace policies relating to human resources management and anti-bullying, discrimination and harassment	Describe basic processes, policies and legislation relating to personnel employment and management	Explain institutional governance, structure and responsibilities for human resources management

Activities

Select activities that are appropriate to your training environment and, if relevant, keep a record for your portfolio e.g.,

- Review information on AHPRA, DBA, or other relevant websites
- Review case studies and information provided by medical defence organisations
- Discuss with senior colleagues any situations or incidents that may have medicolegal implications
- Review relevant sections of the RCPA Quality Management, Ethics, and Anti-Discrimination, Harassment and Bullying online modules
- Attend an RCPA, NATA or similar management course
- Participate in workplace-based anti-bullying and harassment training and/or complete the RCPA online module

2.5 Utilisation of resources

Foundations	Core	Transition to Fellowship
Use clinical and ethical judgment to minimise wasteful practices	Discuss budgetary considerations in the provision of a forensic odontology service	Be aware of the possible budgetary effects of indiscriminate ordering of tests, both internal and external to the laboratory, and apply this to your own use of auxiliary investigations and special procedures
Be aware of cost-benefit analysis for new technology	Understand the need for a process and cost-benefit analysis in implementing new technology	Describe the various local and international research funding bodies and funding opportunities for research and demonstrate knowledge of funding mechanisms in the public sector relating to forensic odontology in Forensic Odontology
	Identify opportunities to reduce waste in the laboratory, for economic and environmental benefit, without compromising clinical care	Propose and practice strategies to reduce wasteful practice in the laboratory, for economic and environmental benefit, while maintaining optimal clinical care
Contribute to team efforts for the efficient operation of the department and delivery of services, while attending to personal study and wellbeing needs	Explain the importance of balancing service provision requirements with the learning and wellbeing needs of all team members for efficient operation of	Be able to prepare work rosters to meet operational requirements of the department, in balance with the professional development and wellbeing needs of team members

Activities

Select activities that are appropriate to your training environment and, if relevant, keep a record for your portfolio e.g.,

- Complete the Quality Management online learning module
- Attend the RCPA Management Course or local courses where available
- Discuss with senior colleagues the cost-effectiveness of current and proposed procedures and equipment in the context of limited resources
- Review literature concerning the economic and environmental impacts of wasteful practice in the laboratory
- Observe and/or contribute to strategic planning in the department
- Contribute to the preparation of work rosters in the department

2.6 Information fundamentals

Foundations	Core	Transition to Fellowship
Use digital tools for general purpose applications including word processing, spreadsheets, presentation, data storage and communication	Understand the use of information systems and computational analysis for forensic odontology reporting, data management, and quality control/assurance	Participate in the application of information systems and computational analysis for forensic odontology reporting, data management, and quality control/assurance
Conform to conventions of security and etiquette in the use of electronic communications such as email and social media	Use digital technology to share images, text, and sound for investigational, educational and research purposes, ensuring compliance with privacy principles	
Use written and electronic health and dental records and information systems for accurate recording and communication of clinical information, complying with requirements for handling sensitive information, including use of passwords and data encryption	Describe legal, meaningful and secure use of health records (electronic and non-electronic) in the process of forensic odontology casework and use correct terminology and coding systems	Describe the functions, limits and potential of information systems in enhancing efficient management and improving the quality of forensic odontology casework
Identify the information technology environment in which systems operate, including integrated systems (i.e., dental, and other information systems, back-ups, reporting and network structure)	Use laboratory information systems to retrieve records/reports/specimens for examination and review and to satisfy clinical audit and/or research purposes	Explain the role of informatics skills in aggregating multiple data sources and/or analytical systems

Activities

- Develop computer knowledge and use this knowledge to assist with effective teaching, audits and reviews
- Consult employer documentation relating to data security and proper use of electronic communications such as email
- Use information systems in recording data, including a storage and retrieval system for specimens, results, comments, and final reporting
- Network and share information with colleagues

3 RESEARCH AND SCHOLARSHIP

Forensic odontologists have responsibilities with regard to the processes of scientific inquiry, research and education. They are expected to:

- Maintain professional competence throughout their careers, by keeping up to date with new knowledge in technical and other aspects of forensic odontology and integrating the knowledge into their practice (life-long learning)
- Contribute to advancing knowledge and/or enhancing practice in forensic odontology
- Critically appraise scientific literature and research
- Contribute to the education of peers, trainees, other health professionals and to the understanding of forensic odontology in the general community.

By the end of training, trainees should be able to critically appraise scientific literature and research in forensic odontology and be sufficiently skilled in scientific enquiry to conduct a small-scale investigation or participate in a larger-scale research study. They should have developed the self-discipline to support the habit of life-long self-education. Through personal experience and observation, they should have sufficient understanding of teaching and learning to be able to mentor and supervise junior members of the profession and to conduct educational sessions for colleagues and the general community.

The following tables of learning outcomes and suggested activities are a guide as to what trainees should have achieved at three stages of training: foundations, core and transition to fellowship.

3.1 Appraising and applying evidence

Foundations	Core	Transition to Fellowship
Identify, select, and critically appraise sources of medical, dental and forensic information, discriminating between them in terms of their currency, format, authority and relevance	Identify and evaluate new evidence appropriate to practice through quality-appraised evidence-alerting services, and through interpretation of study findings, using basic statistical concepts where applicable	Apply statistical and epidemiological concepts (including distribution, mean, median, standard deviation, statistical significance, confidence intervals, correlation, sensitivity, specificity, predictive values, incidence and prevalence) to interpret scientific data in conducting or appraising research and integrating best evidence into clinical decisions.
Consult recommended textbooks, journals and online sources to build knowledge in forensic odontology	Apply up-to-date information and evidence to the development of skills in forensic odontology	Demonstrate up-to-date knowledge and appraise the significance of literature and innovations in forensic odontology, and apply a balanced approach to the interpretation of literature and evidence to justify opinion
Describe the scientific principles of research and scholarly inquiry and the role of research evidence in forensic odontology	Describe how various sources of information, including studies, expert opinion, and practice audits, contribute to the evidence base of dental and forensic practice	Identify the limitations of evidence and discuss the barriers to and facilitators of applying evidence into practice

Activities

- Search clinical and laboratory databases to collect, organise and analyse data
- Use a standard bibliographic application to download citations and organise them into a personal database
- Undertake systematic critical review of scientific literature
- Read reference material on basic statistical concepts including distribution, mean, median, standard deviation, statistical significance, confidence intervals, correlation, sensitivity, specificity, predictive values, incidence and prevalence
- Seek expert medical librarian and statistical support where relevant
- Participate in journal club and research meetings

3.2 Contributing to research and innovation

Foundations	Core	Transition to Fellowship
Use databases and conduct literature searches to identify existing knowledge and identify questions for further research	Frame questions to be answered by a research project and select appropriate methods to address them	Apply analytical and critical thinking approaches to identify problems in forensic odontology and to propose research strategies to investigate and address them
Demonstrate an understanding of the scientific principles and common research methodologies of research and the role of research evidence in forensic odontology	Explain advantages and disadvantages of different study methodologies (e.g., casecontrolled cohorts, randomised controlled trials etc)	Demonstrate skill in developing a research proposal, selecting appropriate methods and methodologies, and identifying possible funding sources
Demonstrate a working knowledge of key bio-statistical and epidemiological tools used in research	Explain the applications of quantitative and qualitative analytical processes to address identified research questions	Select and apply appropriate qualitative and/or quantitative methods for data analysis.
Construct written text in a scholarly manner, using correct referencing protocol	Describe the process of preparing research for publication	Prepare reports and papers of a publishable standard, complying with the conventions and guidelines for reporting biomedical research
Explain the principles of research ethics and the importance of ethical approval and participant consent for research	Identify specific institutional and jurisdictional sources of information and approval processes applicable to research ethics	Comply with conventions for ethical treatment of humans and animals, confidentiality and privacy, attribution of credit (including authorship), intellectual property and copyright, malpractice and misconduct
Summarise and communicate to peers the findings of applicable research and scholarship	Communicate research findings in accordance with conventions for presenting clinical and biomedical research, demonstrating appropriate skills in presentation and discussion	Clearly articulate ideas, construct cohesive arguments, and translate and convey research findings to a variety of stakeholders using oral, poster and written formats
Identify the roles and contributions of members of a research team	Identify opportunities to participate as part of a team involved in a research project	Participate in research activities, balancing this with service roles and responsibilities

Activities

- Add to a portfolio of scholarly activities, which may include an oral or poster presentation at a local, regional or national meeting, or other scientific presentation
- Participate in and present cases, reviews and original work to peers at multidisciplinary meetings and journal clubs
- Write abstracts and scientific articles suitable for presentation or publication, using appropriate referencing and referencing software
- Contribute collaboratively to the work of a research program, including developing a proposal, seeking funding and ethics approval, study design, analysis and presentation of findings
- Attend research meetings and learn from the skills of experienced researchers

3.3 Learning and continuing professional development

Foundations	Core	Transition to Fellowship
Identify personal, educational, and professional goals, incorporating these into a learning plan adjusted for personal learning preferences, and reflect on how effective the plan is in developing knowledge base and competence	Review and update earlier learning plan(s) with input from others, identifying learning needs to generate immediate and longer-term career goals	Align expectations for practice with job opportunities and workforce needs, and seek further educational experiences as required to gain competencies necessary for future specialist practice
Identify resources for learning in your discipline	Identify, record, prioritise and answer learning needs that arise in daily work	Improve personal practice by evaluating a problem, setting priorities, executing a plan, and analysing the results
Accept feedback constructively and modify practice in response as required	Demonstrate the ability to respond constructively to the outcome of reviews, assessments or appraisals of performance	Seek multiple sources of feedback to continuously improve personal practice and contribute to collective improvements in practice
Demonstrate a commitment to career-long learning	Show commitment to continuing professional development which involves seeking training and self-development opportunities, learning from colleagues and accepting constructive criticism	Commit to career-long participation in continuing professional development, ongoing peer review, and monitoring of team and personal practice to maintain and demonstrate professional competence and optimise practice. This includes understanding the responsibilities of maintaining currency of practice, updating qualifications as required, and knowledge of requirements of dental registration authorities, e.g. AHPRA

Activities

- Create a learning plan in collaboration with your supervisor, identifying learning needs related to forensic pathology and training opportunities
- Review your learning plan regularly with feedback from your supervisor and others
- Plan, implement and monitor a personal continuing education strategy, including selfassessment activities;
- Use technology to schedule, record, monitor, revise, and report on learning
- Seek advice from a mentor or educational psychologist if needed to enhance study effectiveness
- Regularly review relevant journals and participate in educational meetings and journal clubs and case reviews
- Review the RCPA Continuing Professional Development Program manual to become familiar with requirements and plan for activities post-fellowship

3.4 Educating others

Foundations	Core	Transition to Fellowship
Demonstrate basic skills in teaching adults, including peers	Prepare, deliver, and evaluate educational sessions relating to forensic odontology to students, peers, staff members and other health professionals and members of the medico-legal team, incorporating the principles of adult learning and using effective oral, visual and written modalities	Communicate effectively with learners, incorporating relevant up-to-date literature into presentations, and being able to translate and convey technical concepts and information in an understandable manner to those without technical expertise in forensic odontology
	Demonstrate respect for the deceased and ensure integrity of the death investigation when teaching others	

Activities

- Participate in and contribute to formal and informal departmental teaching sessions
- Develop or contribute to educational case-studies and tutorials for trainees, using face-toface or online formats
- Seek feedback on your own teaching effectiveness
- Provide feedback to juniors to help them improve their own teaching
- Mentor students and other trainees and advise on effective preparation for examinations

4 PROFESSIONAL QUALITIES

Forensic odontologists are required to uphold the legal and ethical responsibilities of the profession and to behave with diligence, integrity and compassion. Their concern for client confidentiality and the reputation of the profession should be evident in their daily practice. They should:

- Maintain their professional competence throughout their career
- Act with honesty, trustworthiness, diligence and integrity at all times
- Conduct respectful communications with colleagues, families of deceased individuals and others
- Be skilled in a variety of modes of communication and be able to use them appropriately depending on the circumstances
 Establish and maintain co-operative relationships with colleagues, and others in health services and other organisations

During training, trainees should reflect on and strive to adopt the attitudes and values that underpin professional practice and take advantage of opportunities to extend themselves in these areas so that by the end of training, they are fully able to assume these professional responsibilities.

The following tables of learning outcomes and suggested activities are a guide as to what trainees should have achieved at three stages of training: foundations, core and transition to fellowship.

4.1 Professional interactions and communication

Foundations	Core	Transition to Fellowship
Demonstrate awareness of medico- legal death investigation as a collaborative effort between individuals and groups, including forensic odontologists, with different skills and experience working toward a common goal	of mortuary, laboratory and legal teams, recognising your own responsibilities and limitations,	Promote constructive collegiality and a collaborative interprofessional approach to forensic odontology, appropriately recognising respective responsibilities of all involved
Establish and maintain clear, respectful and effective channels of communication with colleagues, other health and scientific professionals, and members of the legal system	Consult with, seek information and advice, and obtain relevant clinical, laboratory, radiologic and other evidence as needed to contribute to forensic odontology casework	Communicate clearly and authoritatively, integrating all data relevant to forensic odontology casework, including in stressful situations
Describe and acknowledge factors that contribute to misunderstandings, differences, and conflicts in workplace and forensic settings, and demonstrate respect for a diversity of perspectives	Be able to use strategies to promote understanding, manage differences, and resolve conflicts in a manner that supports a collaborative culture	Work with colleagues to promote understanding, manage differences, resolve conflicts, and cultivate a collaborative culture
	Demonstrate personal communication skills to prepare for, participate and contribute effectively to meetings and discuss forensic evidence and conclusions	Play a leading role in multidisciplinary and team meetings, doing background research on agenda items, ensuring all relevant information is at hand, reviewing cases and carrying out or arranging additional work that may have to be done post-meeting

written or electronic/digital modalities	communicate relevant findings, reports, opinions in a clear and timely fashion to, inter alia, coroners, police, families,	outcomes of forensic odontology investigations to a wide range of stakeholders in an accurate, complete, timely, and accessible manner, in compliance with
	• • • • • • • • • • • • • • • • • • • •	manner, in compliance with regulatory and legal requirements

Activities

Select activities that are appropriate to your training environment and, if relevant, keep a record for your portfolio e.g.,

- Observe and evaluate discussions and expert evidence provided by colleagues, demonstrating an understanding of the rules of evidence and the role of the expert
- Request seniors to review and evaluate your performance as an expert witness
- Participate in the provision of peer review by senior colleagues, demonstrating an understanding of the related special obligations and ethics.
- Participate in training sessions on communications, cross-cultural communications, presentation skills, etc
- Document telephone communication of findings, interpretations, clarification of requests and complaints where appropriate, seeking feedback from supervisors and colleagues
- Provide expert evidence in inquests or court cases
- Observe others providing expert evidence in the court situation.

4.2 Ethical principles

Foundations	Core	Transition to Fellowship
Define essential ethical principles and identify relevant frameworks, codes and standards relating to dentistry and forensic odontology practice	principles, frameworks and standards to guide personal	Use appropriate methods of ethical reasoning to reach balanced decisions where complex and conflicting issues are involved
Adhere to the applicable codes, guidelines and policies of the RCPA, the Dental Board of Australia, the Dental Council of New Zealand, or other relevant professional bodies at all times	peer review and second opinions	adhere to guidelines concerned with

Activities

Select activities that are appropriate to your training environment and, if relevant, keep a record for your portfolio e.g.,

 Complete the RCPA online ethics module and refer to relevant codes and standards listed in the module. This should be completed in the first year of training

4.3 Professional conduct

Foundations	Core	Transition to Fellowship
Exhibit honesty, integrity, respect and empathy with colleagues, other professionals, families and members of the public	Demonstrate respect, compassion, and empathy, even in difficult situations	Model honesty, integrity, respect and empathy, including in complex and challenging circumstances
Exhibit timeliness in reporting for duty and being ready for work	Respect assigned schedules, dependably complete assigned tasks in a timely manner, and assist team	Anticipate time management needs of the team, planning and assisting as required

	members when reasonably requested	
Be aware of your own limitations and seek advice when needed		Demonstrate significant awareness of, and ability to address your own limitations and blind spots
Recognise and declare personal conflicts of interest when required	Describe the implications of potential personal, financial, and institutional conflicts of interest, including conflicts of interest with industry	Demonstrate an approach to managing your own or others' conflicts of interest in accordance with ethical, legal, and moral obligations when required
Describe key behaviours that are unprofessional, unethical or may indicate impairment in others, while understanding the importance of early intervention	Recognise and respond promptly and non-judgmentally to unprofessional behaviours or impairment in others, reporting to a relevant authority in accordance with ethical and legal obligations	Promote a culture that recognises and responds effectively to unprofessional behaviour and colleagues in need
Maintain a neat professional appearance, dressing appropriately for the duties to be performed		Model professional personal presentation standards
Demonstrate a commitment to societal expectations in forensic odontology casework and the maintenance of neutrality	Recognise the need for a balanced approach when addressing controversial issues and/or competing findings and presenting forensic odontology information in the medicolegal setting	Exhibiting courage of convictions and being prepared to stand on aspects of the rights of the individual as well as human rights in general, remembering at all times that examination of the deceased is a privilege that is applied to protect and improve the health, safety and wellbeing of the living and may be used as an instrument of enquiry and justice
Recognise and respect the dignity of the deceased and the bereaved at all times	Optimise the physical environment and processes to preserve the dignity and privacy of the deceased person and the bereaved	

Activities

Select activities that are appropriate to your training environment and, if relevant, keep a record for your portfolio e.g.,

- Observe positive professional role models to identify appropriate conduct
- Access institutional and jurisdictional codes of conduct and legal documents concerning conflict of interest and mandatory reporting obligations if needed
- Read the RCPA position statement: Patient Expectations of Pathologists
- Seek advice and support from a mentor

4.4 Patient privacy, confidentiality and consent

Foundations	Core	Transition to Fellowship
Comply with legal, ethical and dental requirements related to privacy and confidentiality and obtaining consent from families and others when required	Consistently maintain confidentiality in the forensic setting, while recognising special limitations on confidentiality for legal and public health purposes	Demonstrate the ability to manage complex issues while preserving confidentiality

Activities

Select activities that are appropriate to your training environment and, if relevant, keep a record for your portfolio e.g.,

• Complete the RCPA online ethics module

4.5 Disclosure and handling of error

Foundations	Core	Transition to Fellowship
Comply with workplace requirements for truthful reporting to a senior person in the event of a personal error that could impact on the integrity of an investigation	Describe the ethical, professional, and legal obligations, and policies for, disclosure and reporting of adverse incidents in the workplace and broader context	Identify, acknowledge, communicate, and explain errors. Contribute to root cause analysis if required, and be able study errors and discrepancies to recommend improvements to enhance forensic odontology practice

Activities

Select activities that are appropriate to your training environment and, if relevant, keep a record for your portfolio e.g.,

 Complete the RCPA online ethics module which includes a section regarding disclosure of error

4.6 Public health promotion and protection

Foundations	Core	Transition to Fellowship
Demonstrate a commitment to the protection of patient rights and the promotion of the public good in health care	Identify key and emerging public health problems and describe the processes of disease prevention, screening, health promotion, and health surveillance	Explain how public health measures and processes can be applied cost-effectively to improve patient care and promote public health, and to respond to emerging health problems
Describe the types of patients or communities who may experience health inequities	Describe obstacles that patients may face in accessing dental services and other health care resources	Describe strategies to promote equity of access to services and public health interventions in a socially accountable manner
Understand basic epidemiological concepts	Identify determinants and potential threats to health (including socio-economic, environmental, behavioural, biomedical and genetic determinants) and the indicators for measuring health and disease status, such as morbidity, mortality, incidence and prevalence	Use evidence from research and analysis of health status data to link health issues to their determinants and to clarify the mechanisms by which these factors combine to cause illness, or death, and use data to inform and contextualise clinical and preventive practice
	Promote the application of forensic odontology and related disciplines to circumstances of humanitarian need and abuses of human rights	

Activities

- Study epidemiological texts to learn general concepts
- Locate information about notifiable diseases and patient registers
- Read epidemiological reports relevant to forensic pathology
- Maintain awareness of human rights issues and humanitarian needs through reports from non-government agencies and media
- Be aware of and notify colleagues about career promotion resources, fact files and relevant position statements on the RCPA website
- Evaluate publications concerning potential health impacts of environmental change

4.7 Cultural safety

Foundations	Core	Transition to Fellowship
Define concepts relevant to cultural awareness, sensitivity, competence and safety	Identify and mitigate risks to safe cultural practice in the workplace	Promote diverse and culturally safe work environments
Demonstrate an awareness of cultural diversity (including, but not limited to ethnicity, gender, spiritual beliefs, sexual orientation, lifestyle, beliefs, age, social status or perceived economic worth)	Understand the origins and health consequences of discrimination, socio-economic and other forms of disadvantage	Apply knowledge of population health, including issues relating to health inequities and inequalities; diversity of cultural, spiritual and community values; and socioeconomic and physical environment factors; to specialist forensic odontology practice
Acknowledge and reflect on the potential for one's own bias or cultural differences to affect health status and interactions with others	Embrace diversity and demonstrate the ability to function effectively and respectfully when working with people of different cultural and linguistic backgrounds	
Acknowledge and respect the culture, spirituality and histories of Aboriginal, Torres Strait Islander and/or Māori peoples, and understand the implications for health care	Apply knowledge of the cultural diversity, spirituality and relationship to land of Aboriginal, Torres Strait Islander and/or Māori peoples and other cultural groups to the practice of forensic pathology, particularly with regard to death rituals and requirements.	Advocate for cultural safety in relation to the needs of Aboriginal, Torres Strait Islander and/or Māori peoples, particularly in the context of forensic settings and death investigation

Activities

Select activities that are appropriate to your training environment and, if relevant, keep a record for your portfolio e.g.,

- Complete the Cultural Safety eLearning modules and print the certificate of completion for your portfolio, or provide evidence of completion of cultural competence/safety training provided by your employer
- Access and use information about indigenous populations, their histories and specific health issues as the context for understanding culture and health interactions

4.8 Self care

Foundations	Core	Transition to Fellowship
Sustain sufficient levels of physical energy and mental attention to complete required tasks in a timely and reliable manner throughout designated periods of duty	Demonstrate sufficient behavioural stability, resilience and flexibility to work constructively in a diverse and changing academic and forensic environment, dealing with the demands of being a specialist trainee	Plan strategies to deal with the physical, psychological and time management demands of transition to specialist practice
Monitor your own health and behaviour, recognise and respond appropriately to any condition that may lead to a lapse in capacity, and seek help when required		

Be familiar with mechanisms to draw to the attention of employers and/or the RCPA any significant concerns about workplace or training stressors that may impact adversely on your wellbeing		
Seek mentorship to address personal and professional development needs	Build relationships with mentors	Develop skills to offer mentorship to others if required

Activities

Select activities that are appropriate to your training environment and, if relevant, keep a record for your portfolio e.g.,

- Identify strategies to support personal well-being, a healthy lifestyle and appropriate self-care, with the help of friends, family and a primary healthcare professional
- Manage time efficiently and mitigate stressors such as fatigue and sleep deprivation
- Plan and take breaks and holidays as needed to maintain wellbeing
- Consult the 'Trainee Solutions' section of the RCPA website
- Undertake workplace based or RCPA online education relating to anti-discrimination, harassment and bullying
- Review the RCPA online mentoring module

SECTION 3

APPENDICES

Appendix 2: Part II Assessment	Appendix 1: Part I Assessment	35
Appendix 4: Portfolio Requirements	Appendix 2: Part II Assessment	38
Appendix 5: Forms and log pages	Appendix 3: Guidelines for completing the supervisor report	41
Appendix 6: Forensic Odontology Project Reports58	Appendix 4: Portfolio Requirements	42
	Appendix 5: Forms and log pages	44
Appendix 7: Assessment matrix61	Appendix 6: Forensic Odontology Project Reports	58
	Appendix 7: Assessment matrix	61

Appendix 1: Part I Assessment

Assessment in Part I is by

- Formal examinations;
- Portfolio evidence of having participated in a sufficient number and type of DOPS, CbD and other workplace-based assessment activities, case reports if applicable;
- Satisfactory annual supervisor's report.

See assessment matrix in Appendix 7.

Examinations are prepared in accordance with <u>RCPA Guideline 3/2015 Quality Framework for RCPA Examinations – Written, Practical and Oral.</u>

Part I Formal Examination

The Part I examination has two phases and emphasises theoretical, practical and interpretive aspects of investigations in forensic odontology. It is taken after at least 24 months FTE of training in forensic odontology. No automatic exemptions are given for any component of the exam. Trainees who have completed approved programs in Forensic Odontology at the time of their training determination may receive exemptions from the whole or particular components of the examination at the discretion of the Principal Examiner. Trainees who are enrolled in such programs must provide evidence of completion before the deadline for examination registration in order to be considered for such exemptions.

Phase 1

- A 3-hour short answer structured written examination;
- An observed dental autopsy held in the trainee's own laboratory.

Only candidates who are successful in Phase 1 will be invited to Phase 2.

Phase 2

• A structured oral examination, in which candidates rotate through up to four (4) structured interview stations, with a maximum eight (8) questions for the examination. Reading time will be allowed between stations as appropriate.

The Part I examination addresses such issues as, but not necessarily limited to:

- Basic pathological sciences relevant to the practice of forensic odontology
- Human identification
- Mortuary procedures
- Reconciliation
- Oro-facial trauma interpretation
- Dental age estimation
- 2D and 3D Comparison and Superimposition of dentition
- Bite mark trauma interpretation and significance
- Sources of potential bias in forensic odontology casework

Each section of the examination stands alone, and candidates can be credited with a pass in each section, carried over for a maximum of 5 years.

Portfolio for Part I

The portfolio is a record of activities undertaken by trainees associated with their daily work, including the workplace-based assessments. Trainees should start accumulating evidence for the portfolio from early in Year 1 and keep it until they complete training. The hard copy portfolio and summary spreadsheet will be checked for completeness by the supervisor before the examination.

Trainees should complete three (3) case reports during their Part I training unless they are undertaking (or have received RPL for) substantive research/self-education activities in approved forensic odontology programs or undertaking (or have received RPL for) a PhD or a master's degree by research (M.Phil or equivalent) in Forensic Odontology.

Please refer to the portfolio requirements in Appendix 4. Detailed instructions are on the forms that must be used to record the activities, in **Appendix 5**. The portfolio summary spreadsheet (Excel file) may be downloaded from the RCPA website.

The portfolio and summary spreadsheet must be provided to the supervisor when preparing the supervisor report. A print-out of the summary spreadsheet should be appended to the annual and pre-examination supervisor reports which are sent to the College. The supervisor report (see below) and summary spreadsheet are reviewed by the RCPA Registrar and the Principal Examiner or delegate. The signatories and trainee may be contacted to confirm evidence of satisfactory completion.

NOTE: The portfolio itself should not be sent to the College unless requested for audit. However, any completed case reports must be submitted to be reviewed by the Principal Examiner or delegate.

Supervisor Reports

Trainees must submit a supervisor report for each year of training, including periods of rotation. Trainees who are sitting the Part I examination must submit an additional pre-examination supervisor report in the year of the examination. Please refer to *RCPA Trainee Handbook – Administrative Requirements* (on the RCPA website) for the due dates for these reports.

It is the trainee's responsibility to ensure that the pre-examination supervisor report is completed and submitted by the due date. Failure to do so may jeopardise the accreditation of training time or finalisation of examination results. The report form can be downloaded from the RCPA website.

If trainees are seeking accreditation of training time for concurrent employment at non-accredited sites (e.g., general practice or research/ academic position in dentistry) a record of relevant cases and a one-page self-evaluation of how the work undertaken address the curriculum outcomes (e.g., anatomy and dentistry outcomes) must be submitted as an appendix to the supervisor report, to be reviewed by the Principal Examiner or delegate.

Summary of assessment requirements for Part I

Item	Completion	Assessed by	Comments
Phase 1: Written examinations comprising short answer questions	Before oral examination	Principal Examiner. Short answer questions are double marked by RCPA examiners.	Questions set by the panel of examiners in Forensic Odontology
Phase 1: Observed Dental Autopsy	Before oral examination	Principal Examiner or delegate	
Portfolio items to be signed off by supervisor or delegate	Before the Part I oral exam.	The portfolio summary spreadsheet is checked for completeness by BEA Registrar or delegate. If incomplete, the candidate may be required to undertake further activities.	Portfolio items are to be reviewed by the supervisor when preparing the supervisor report. See Appendix 4.
Phase 2: Structured Oral examination	After passing Phase 1	Principal Examiner and RCPA examiners	Multi-station set of structured interviews. Questions set by the panel of examiners in Forensic Odontology
Supervisor reports at end-of- rotation, annually and pre- exam. Portfolio summary spreadsheet with annual and pre-exam reports	See RCPA website for submission dates	Reviewed by the Registrar and Principal examiner or delegate.	Referral to Principal Examiner if necessary See Appendix 3

Assessment Calendar

Please refer to <u>RCPA Trainee Handbook – Administrative Requirements</u> (on the RCPA website) for key assessment dates

Appendix 2: Part II Assessment

This more advanced training encourages diversity, specialisation and investigation within fields of forensic odontology and trainees will have sufficient choice to be examined in an area of subspecialisation. However, knowledge of the wide field of forensic odontology and in particular, recent issues in forensic odontology is expected.

Assessment in Part II is by:

- A structured oral examination
- Forensic Odontology Reports
- Portfolio evidence of having participated in a sufficient number and type of DOPS, CbD and other workplace-based assessment activities, case book with a sufficient number of cases;
- Satisfactory annual supervisor's report

All components must be passed to gain an overall pass at Part II. Repeat/supplementary exams may be offered, at the discretion of the chief examiner, to Part II candidates with a borderline result but not necessarily to candidates who have failed an exam.

See assessment matrix in Appendix 7.

Examinations are prepared in accordance with <u>RCPA Guideline 3/2015 Quality Framework for RCPA Examinations – Written, Practical and Oral.</u>

The structured oral examination

In the structured oral examination candidates rotate through up to four (4) structured interview stations. A scenario or case(s) including relevant materials and information may be presented at each station and a number of questions may be asked relating to these and in relation to the issues they raise. The scenarios, cases and questions will consider issues or topics important in forensic odontology and these issues may include quality assurance, safety, management, psychological health and its management, medico-legal issues, communication and teamwork as well as technical aspects of casework in forensic odontology including age estimation, routine dental identification, disaster victim identification, injury interpretation including bite marks, sources of bias, imaging and image interpretation, reporting of findings, presentation of evidence, peer review and ethics among others. Reading time will be allowed prior to the examination as appropriate.

Forensic Odontology Project Reports

The **Part II** assessment requires at least three (3) Reports of 3000-5000 words, one of which must be a literature review of an area within Forensic Odontology of the trainee's research project, and one to be a research report from the trainee's research project, and one to be a case report from a case undertaken by the trainee. Each of these should be of a publishable standard. Please refer to Appendix 6 for Report guidelines. An additional report should be submitted as a critique of a previous DVI operation IF a trainee has not been able to participate in a real or simulated DVI operation.

The completed Reports may be submitted any time after the Part I examination, but trainees are advised to submit the Reports early in order to receive feedback. At least two (2) Reports should be submitted by the end of 4 years FTE of training. Please refer to the RCPA website for the due date. The Reports will be graded by two members of the Forensic Odontology Examiners Panel independently as either *satisfactory* or *not satisfactory*. Candidates whose Reports are *not satisfactory* will be asked to re-submit.

Publications as first or lead author completed during training may be considered for the Report requirements, up to a maximum of three (3) Reports. Such publications should be published in journals approved by the Principal Examiner. Letters to the editor or opinion pieces are not acceptable.

A candidate with a PhD in Forensic Odontology or a master's by Research in Forensic Odontology (M.Phil or equivalent) may be exempt from the Research Report requirement but must still submit a literature review and case report as specified above. These exemptions will be considered at the time of the training determination.

Portfolio for Part II

In addition to the record of activities undertaken by trainees associated with their daily work including the workplace-based assessments, the portfolio for Part II must contain a case book of minimum 50 cases (minimum 25 cases per year) undertaken by the trainee under supervision. Up to 40% of these may be historical cases if current case numbers are not sufficient within the laboratory to meet this requirement. Simulated bite mark cases may also be undertaken if real ones or historical ones are not available within the laboratory. The cases must include the range of case types encountered in routine forensic odontology practice as well as a substantive number of cases in the trainee's area of specialisation.

Each case record must contain an introduction, a report of the clinical findings obtained through history and examination, copies of medico-legal forms used, working notes, the Coroner's report if relevant, and a one-page comparison report and a summary which demonstrates the critical analysis which lead to the conclusions made by the trainee. It is strongly recommended that trainees commence this casework early in Part II training.

Please refer to the portfolio requirements which are set out in Appendix 4.

Detailed instructions are included on the forms that must be used to record the activities and the guidelines for the case book. These forms and guidelines are in **Appendix 5**. The portfolio spreadsheet (Excel file) may be downloaded from the RCPA website.

The portfolio including the case book and summary spreadsheet must be reviewed by the supervisor. The summary spreadsheet must be submitted to the College as described earlier, prior to the Part II examination. The supervisor report and summary spreadsheet are reviewed by the RCPA Registrar and the Principal Examiner or delegate. The signatories and trainee may be contacted to confirm evidence of satisfactory completion.

NOTE: The portfolio itself should not be sent to the College unless requested for audit. However, the case book must be submitted to the College for review by the Principal Examiner.

Supervisor Reports

Trainees must submit a supervisor report for each year of training, including periods of rotation. Trainees who are sitting the Part II examination must submit an additional pre-examination supervisor report with the appended print-out of the portfolio summary spreadsheet. Please refer to the *Trainee Handbook – Administrative Requirements* for key dates for submitting these reports.

If trainees are seeking accreditation of training time for concurrent employment at non-accredited sites (e.g., general practice or research/ academic position in dentistry) a record of relevant cases and a one-page self-evaluation of how the work undertaken address the curriculum outcomes (e.g., quality and management outcomes related to advanced training) must be submitted as an appendix to the supervisor report, to be reviewed by the Principal Examiner.

It is the trainee's responsibility to ensure that the pre-examination supervisor report is completed and submitted by the due date. Failure to do so may jeopardise the accreditation of training time or finalisation of examination results.

Summary of assessment requirements for Part II

Item	Completion	Assessed by	Comments
Structured Oral examination: multi- station set of structured interviews	After submission of Forensic Odontology Reports and portfolio	Appropriately trained examiners with adequate post-Fellowship experience	Multi-station set of structured interviews. Questions set by panel of examiners and compiled by sub-committee of the Forensic Odontology Discipline Advisory Committee
Forensic Odontology Reports	Before the Part II oral exam	Two examiners independently	
Portfolio items to be signed off by supervisor or delegate.	Before the oral exam	The portfolio summary spreadsheet is checked for completeness.	Portfolio items are to be reviewed by the supervisor when preparing the supervisor report. See Appendix 4.

Item	Completion	Assessed by	Comments
		If incomplete, candidate may need to undertake further activities.	
Supervisor reports at end-of-rotation, annually, pre-exam.	See RCPA web site for submission dates	Reviewed by the Registrar and Principal examiner or delegate.	Referral to Principal Examiner if necessary. See Appendix 3

Assessment Calendar

Please refer to $\underline{\text{Training Handbook} - \text{Administrative Requirements}}$ (on the RCPA website) for key assessment dates.

Appendix 3: Guidelines for completing the supervisor report

Please refer to the following documents:

- <u>Information about the role and responsibilities of supervisors and resources to support supervision</u>
- The RCPA policy on the Supervision of Training and Accreditation of Supervisors

The <u>Supervisor Report Form</u> should be completed by the supervisor in consultation with other staff who have had a significant role in the trainee's training program and with reference to the trainee's portfolio.

Trainees must make their up-to-date portfolio available to the supervisor for the annual or rotation review. A print-out of the portfolio summary spreadsheet must also be made available for the pre-examination review.

The portfolio should include

- All completed forms for Direct Observation of Practical Skills (DOPS)
- All completed forms for Case-based Discussions (CbD)
- Copies of all Case Reports and completed forms for Case Reports (if applicable)
- Evidence that the trainee has completed the minimum number of required other activities
- Copies of all previous supervisor reports

Trainees are responsible for the safe keeping of all these records and should not contact the College for the previous year's supervisor report.

Submitting the Supervisor Report

It is the trainee's responsibility to ensure that the form is completed and submitted by the due date.

At least one supervisor report is due annually and may be submitted with the annual registration for the subsequent year.

For trainees who participate in rotational programs, one report is required for each period of rotation at a different institution and should be submitted at the completion of the rotation.

For trainees sitting for Part I and Part II examinations, the additional pre-examination supervisor report and portfolio summary spreadsheet are due by the date specified in the RCPA *Trainee Handbook – Administrative Requirements* (on the RCPA website). Reports must be available for consideration at the examinations.

A print-out of the portfolio summary spreadsheet must be appended to annual and pre-examination reports.

Please return this Supervisor Report by the due date to: bea@rcpa.edu.au

Appendix 4: Portfolio Requirements

The table below contains guidelines to assist trainees to compile the portfolio and the portfolio summary spreadsheet.

Portfolio activities are carried out in the workplace and provide evidence that the trainee is developing the technical skills and professional values, attitudes and behaviours that are not readily assessed by formal examinations.

Trainees should start accumulating evidence for the portfolio as early as possible in training and aim to have half of them underway or complete before the Part I examination.

Unless otherwise indicated in the Table, **Appendix 5** contains the forms and detailed instructions for recording these workplace activities. Please file the (hard copy) forms in a portfolio folder with separate sections for each category of activity.

A soft copy portfolio summary (Excel spreadsheet) should also be compiled so that trainees can keep track of what they have completed. The spreadsheet can be downloaded from the RCPA website. It is the trainee's responsibility to keep both hard and soft copy records up to date.

The supervisor should review and sign off completed portfolio items on the annual, rotation and pre-exam supervisor report.

The portfolio summary spreadsheet should be printed and appended to the pre-exam supervisor report and submitted to the RCPA prior to the oral examination at a time determined by the RCPA. The summary will be reviewed by the Registrar, Board of Education and Assessment and the Principal Examiner. The signatories and trainees may be contacted to confirm evidence of satisfactory completion.

Note: The actual portfolio should not be sent unless requested for audit.

No	Item	Part I	Part II	Evidence
1	Laboratory safety checklist.	Complete within 3 months of starting training.		One only is required during training.
2	Departmental induction	Complete within 3 months of starting in each new laboratory		Induction sign off or copy of digital record of completion provided by own Department.
3	Supervisor report/s for each year and/or rotation.	End-of-rotation and annual reports. An additional pre- exam report is required in the year of the assessment. See RCPA website for submission dates. Must have a brief (1 page) reflection on the supervisor's comments for each report.		Supervisor Guidelines See Appendix 4
4	DOPS and other procedures The minimum number of procedures per year is indicated. The number in parentheses indicates the number that must be done as DOPS	NB: minimum 4 DOPS per year to a total of minimum 12 before Part I examinations: Individual personal identifications 10 (5) Superimposition (any combination of radiographs and PM hard tissues to AM photographic images) 5 (2) Dental age estimations (range of child, adolescent and adult) 5 (2) Trauma assessments (range of dental trauma, facial soft tissue trauma, facial skeletal trauma, bite mark trauma) 10 (3)	For the procedures below there is no minimum number to be logged. NB: minimum 3 DOPS before Part II exam • Participate in a formally constituted DVI operation (1)* • Anthropological skeletal remains analysis (1) • Observe a full forensic autopsy plus report (1)	Log page for individual personal identifications Log page for other procedures DOPS forms to be signed by supervisor or other appropriately qualified person.

No	Item	Part I	Part II	Evidence
5	Case reports**	3 case reports (1 per year)		Case report forms to be signed by supervisor or other appropriately qualified person.
				Case reports to be submitted to College for review by the Principal Examiner
6	Case book		Minimum 50 cases (25 per year)	Case book to be submitted to College
			These may include case write ups of any of the 10 individual personal identifications per year	for review by the Principal Examiner
7	CbD	Minimum 5 low-medium complexity cases	Minimum 4 high complexity cases.	CbD forms to be signed by supervisor or other appropriately qualified person.
8	Incident reports	Minimum 2 per year reflections on significant incidents during each year throughout training		Significant incident report form
9	Research and scholarship	Minimum 3 different activities per year, chosen from the list on the form in Appendix 6.		Research and scholarly activities form
10	Quality, safety, management activities	Minimum 2 per year throughout training, chosen from the list on the form in Appendix 6.		Quality, safety and management form
11	Ethics, communication, teamwork		Minimum 2 per year throughout training, chosen from the list on the form in Appendix 6.	

^{*}If candidates do not receive the opportunity to participate in an actual or simulated DVI operation, they must complete a critique of a recent DVI operation as and additional Part II Forensic Odontology Project Reports. This need not be of publishable standard.

**The Part II Forensic Odontology Project Reports are examined independent of the Portfolio items, by two examiners appointed by the College. Copies of these Reports are recommended for inclusion in the portfolio as well, after examination and any subsequent revisions.

Appendix 5: Forms and log pages

Appendix 5 contains master copies of forms to be used to record activities for the portfolio. Please make as many copies as you need and file the completed forms safely in the portfolio folder.

The forms are

- Laboratory safety checklist
- Directly observed practical skills (DOPS) form
- Case report form
- Case-based discussion (CbD) form
- Log for individual personal identifications
- Log for other procedures
- Significant incident report form
- Log for research and scholarship
- Log for quality, safety and management
- Log for ethics, communication and teamwork



Forensic Odontology Laboratory Safety Checklist

This form is designed to confirm that trainees have understood and are able to apply laboratory safety instruction provided by the employer as it relates to the RCPA curriculum. It covers the essentials for new Trainees and is the basis for subsequent learning that will be assessed and eventually lead to the ability to function in a laboratory management role as a pathologist.

I have participated in a laboratory safety induction program or educational session
I have reviewed the laboratory safety manual
I know where to find the laboratory safety equipment and how to use it
I have known immunity to hepatitis B (natural or vaccine)
I have been vaccinated and/or screened for other infectious diseases as required by my laboratory
I know how and when to wash my hands and carry this out
I wear enclosed shoes in the laboratory and tie back long hair if applicable
I wear appropriate protective clothing (gown, gloves, goggles, mask as needed) and always remove it before leaving the laboratory
I cover any cuts or wounds before working in the laboratory
I never eat or put anything in my mouth whilst in the laboratory
I know how to handle blood and other body substances and tissues to avoid transmission of infection to myself and others
I know how to prevent sharps injury
I am aware of electrical, chemical, radiation and biological hazards and how to prevent them
I know what to do in an emergency
I know the procedure for reporting safety-related incidents
I know where to find information about legislative requirements for laboratory safety
I know where to find detailed information about laboratory hazards such as dangerous chemicals
I always clean up after myself
I set up my workspace and ensure correct posture and lifting technique so as to avoid strain and injury
Trainee name (print)Signature
Witness (supervisor or other senior member of staff):
Name (print) and signatureDate

DOPS (Direct Observation of Practical Skills) Assessment

Instructions for Trainees and Supervisors

The purpose of the Direct Observation of Practical Skills (DOPS) assessment is to indicate trainee's acquisition of practical, clinical and mortuary skills; to show that they can work safely in the mortuary; and to provide feedback on the progress by highlighting strengths and areas for improvement, thereby encouraging their professional development.

It is important to observe the trainee doing the activity. Observations can be made by the supervisor and also by suitable qualified staff. Assessors who are RCPA/Faculty Fellows can note this as an activity in their annual CPDP submission.

Before sitting **Part I** examination, the following twelve (12) DOPS must have been completed at the minimum, of which a minimum of four (4) must be completed each year:

- Minimum 5 Individual personal identifications
- Minimum 2 superimpositions: any combination of radiographs (including CT MPRs) and PM images of hard tissues to AM radiographs, CT MPRs, 3D virtual dental models and photographic images
- Minimum 2 dental age estimations
- Minimum 3 trauma assessments (including 1 assessment of a probable bitemark injury)

Before sitting **Part II** examinations, the following must have been completed:

- Participation in a minimum of 1 formally constituted DVI operation
 N.B. if candidates do not receive the opportunity to participate in an actual DVI operation, they must complete a critique of a recent DVI operation as one of their Part II Forensic Odontology Project Reports (see Appendix 6)
- Minimum 1 Anthropological skeletal remains case analysis
- Minimum 1 Observation of full forensic autopsy, including report

Trainees should initiate the DOPS assessment by requesting an appropriate assessor to observe them when they are confident, they can complete it satisfactorily. The time taken will vary according to the skill. All stages of multi-part skills should be observed. Observations might take place intermittently over the course of 2-3 days. Over time the assessments should cover each activity and all the skills of collection, recording and comparison of information, and report writing.

The assessor should complete the DOPS from while the trainee is present and spend 5-10 minutes providing immediate feedback.

Grading, standards and outcome of assessment

Each aspect of the trainee's performance should be graded. The "n/a" option should be used if the assessor has not observed that aspect or is otherwise unable to comment.

The trainee's strengths as well as areas for improvement should be discussed with the trainee. Feedback should be given sensitively, in a suitable environment. Areas for development should be identified, agreed and recorded on the DOPS form.

The final outcome should be graded according to whether the standard of performance is as expected for the stage of training. The level of competence should be such that the trainee would be able to perform the task safely without supervision, usually at the level of a competent junior scientist. A trainee whose performance does not meet the standard will be able to repeat the assessment with no penalty.

Record keeping

The DOPS forms must be fully completed, signed and dated by the trainee and the assessor. The forms must be retained by the trainee in his/her portfolio. Only DOPS for which the trainee has met the standard need to be kept in the portfolio.

Forensic Odontolog		•	aatia	al Chill	•	
	Directly Observed Practical Skills (DOPS) Assessment Form					
The Royal College of Pathologists of Australasia Trainee Name	Trainee ID	Year of Tra				
Trainee Name	Trainee ID	1 2 If > 5, pleas	3	4 5		
Assessor Name	Assessor Position			,		
Please use a new form for each procedure or	activity (nlease tick	(one)				
Please use a new form for each procedure or activity (please tick one) ☐ Personal Identification ☐ Superimposition of radiographs ☐ Superimposition of PM hard tissues including 3D CT reconstructions to AM photographic images ☐ Superimposition or comparison of AM and PM digital dental models ☐ Dental age estimation ☐ Trauma assessment: dental trauma/ facial soft tissue trauma/ facial skeletal trauma/ bite mark trauma ☐ Anthropological skeletal remains case analysis						
 Observation of full forensic autopsy Participation in DVI operation (if not provided critique of a recent DVI operation must be co 		ınity, a Part I	I Proje	ct Report	on	
Other (please specify)Brief description of procedure to be observed	d and assessed					
Please comment on whether these aspects o are as expected for the stage of training	f the trainee's perfo	rmance	Yes	No	n/a	
Handling of remains or evidence: observing safety, chain of command and with respect						
Selects and correctly uses appropriate equipment operating procedures	nt, according to stand	lard				
Interpret and discuss findings, with respect to ca	se at hand					
Discuss anomalies and resolve uncertainties						
Record appropriate information to high standard						
Safe work practices and observes appropriate w requirements	orkplace health and s	safety				
Final written report						
Timely, efficient, cooperative performance						
Please comment on other relevant aspects, particularly on aspects for improvement						
Final outcome (circle one) Date of DOPS Time tak				Time tak		
As expected for the stage of training		DOPS		feedback	Κ	
Below expected for the stage of training						
Signature of assessor Signature of trainee				<u> </u>		

Laboratory

Case Report Assessment Form

Instructions for Trainees and Supervisors

Trainees should complete three (3) case reports (~1500 words) during their Part I training unless they are undertaking (or have received RPL for) substantive research/ self-education activities in approved forensic odontology programs or undertaking (or have received RPL for) a PhD or a master's by research (M.Phil or equivalent) in Forensic Odontology. These Case reports are good preparation for the substantive projects (Forensic Odontology Reports) in Part II.

The trainee should discuss with their supervisor before selecting a case/topic for the report. The focus of the case report could be on a specific technical aspect covering any of the content areas specified in the learning outcomes associated with the discipline-specific activities of forensic odontologists. The discussion should include a focused review of the relevant literature.

The Trainee should select a suitable assessor, who should be an RCPA/Faculty Fellow but does not need to be the listed supervisor. The assessor should review the case report and provide feedback to the trainee. The assessor could note this as a quality activity in their annual Continuing Professional Development Program (CPDP) submission.

Grading, standards and outcome of assessment

Each aspect of the trainee's performance should be graded as satisfactory or unsatisfactory.

The trainee's strengths as well as areas for improvement should be discussed with the trainee. Feedback should be given sensitively, in a suitable environment. Areas for development should be identified, agreed and recorded on the assessment form. The final outcome should be graded according to whether the standard of performance is as expected for the stage of training.

Record keeping

Case reports will be evidenced by the assessor completing the assessment form. Please include the completed assessment form and the case report in the portfolio to be reviewed by the Principal Examiner.

Trainees are encouraged to present their completed case reports at scientific meetings of relevant colleges or societies.

The Royal College of Pathologists of Australasia	Forensic Odontology Case Report Assessment Form (Part I)					
Trainee name	Trainee ID (RCPA)	Year of training 1 2 3 4 If > 5, please specify	5			
Assessor's name	Assessor's position ☐ Odontologist ☐ F	n Pathologist □ Scientist □ C	other (pls	specify)		
Please indicate (✓) if each of the fo	ollowing was deemed \$	Satisfactory (S) or Unsatisfa	ctory (U)			
A	spect of Report		S	U		
Clear layout of text with appropriate are well planned and easy to under		aphs. Figures and tables				
Correct, concise English without sp	pelling or grammatical	errors				
Clear introduction, that covers the l	packground of the topi	c & introduces the rest of				
The main body of the report is well question that has been set.	The main body of the report is well organised, easy to read and answers the question that has been set.					
A full range of appropriate sources has been used to research the case/ topic, including textbooks, journals, websites, personal communications, surveys and/or experiments						
The conclusion accurately summar	ises the arguments the	at have been presented				
References are relevant and are ci	ted accurately in the F	athology journal format				
No large amounts of irrelevant mat	erial & text					
Please comment on other relevant aspects, especially on aspects for improvement						
Please indicate the overall standard of the report: ☐ SATISFACTORY ☐ UNSATISFACTORY						
Signature of assessor	Signature of assessor Signature of Trainee					
Date completed						

CbD (Case-based Discussion) Assessment Form

Instructions for Trainees and Supervisors

Throughout training, trainees should seek opportunities to discuss cases with experienced colleagues and receive feedback. The CbD form should be used to formally record at least 2 such sessions per year. The purposes of CbD assessments are: (1) to indicate the trainee's ability to interpret and relate results to clinical findings and make decisions in relation to personal identity, age or origin of marks; including decisions with ethical and legal dimensions; (2) to give feedback to trainees about their strengths and areas for improvement.

At least five (5) satisfactory low-to-medium complexity CbD forms should be signed off before the Part I examination and should reflect routine situations and those with frequently occurring, manageable complications, as determined in conjunction with supervisor.

A minimum of four (4) high complexity cases should be signed off as satisfactory between the Part I and Part II examinations. These high complexity cases should reflect difficult or unusual situations, as determined in conjunction with supervisor.

The trainee should initiate each CbD assessment. The trainee should select two (2) recent cases in which s/he has been involved in some aspect of the investigation. The assessor should present one (1) of these for the trainee to present and discuss. The trainee should select a suitable assessor, who should be an RCPA Fellow but does not need to be the listed supervisor. The assessor should note this as a quality activity in the annual CPDP submission. The trainee should request a mutually convenient time to meet for about 30 minutes. The presentation/discussion should take about 15-20 minutes. A further 5-10 minutes should be allowed for the assessor to give immediate feedback and complete the CbD form.

Each CbD topic should be chosen from a different activity, as listed on the CbD form, and can focus on one or more of the following aspects:

- Dental record keeping and interpretation
- Mortuary techniques
- Interpreting and reporting results
- Sources of potential bias
- Quality improvement
- Professionalism, e.g., ethical/legal aspects, teamwork
- Presentation of evidence

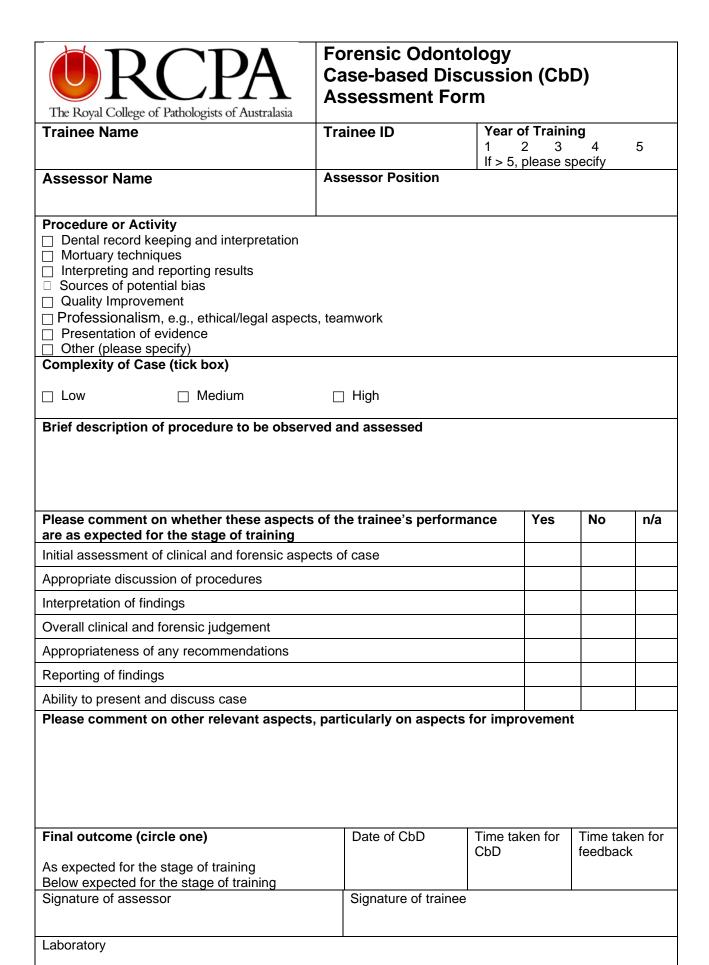
Grading, standards and outcome of assessment

Each aspect of the trainee's performance should be graded. The "n/a" option should be used if the assessor has not observed that aspect or is otherwise unable to comment. Feedback should be given sensitively in a suitable environment and should include strengths and areas for development which should be identified agreed and recorded on the CbD form.

The final outcome should be graded according to whether the standard of performance is as expected for the stage of training. A trainee whose performance does not meet the standard will be able to repeat the assessment with no penalty.

Record keeping

The CbD forms must be fully completed, signed and dated by the trainee and the assessor. The forms must be retained by the trainee in his/her portfolio. Only CbDs for which the trainee has met the standard need to be kept in the portfolio.





Forensic Odontology Individual Personal Identifications log

How to use this form

During each year of training trainees, should log at least 10 personal identifications i.e. minimum 50 personal identifications to be logged by end of training. These should include a range of post-mortem conditions, e.g., intact, fragmented, decomposed, skeletonised etc.

Please note that prior to the Part I examinations, five (5) of these identifications must have been assessed using a DOPS form. These cases are to include a final written report.

Only cases that the trainee has reported should be logged. Cases that the trainee has merely observed or reviewed should **not** be included. During Part II training, logged personal identifications during Part II may be written up as cases for the Case book.

At the end of the year, the supervisor should sight the log and sign off on the annual supervisor report.

Trainee name		Trainee ID	Year of Training 1 2 3 4 5 If > 5 please specify	
Date Lab ref number			Brief description of dec	If > 5, please specify seased and dental condition

Supervisor name (print) and signature	date
Caporvisor Harrie (print) and digitatore	



Forensic Odontology Other procedures log (to be used for procedures other than individual personal identifications)

How to use this form

During each year of training trainees, should log workplace activities listed below:

- Minimum 5 superimpositions any combination of radiographs and PM hard tissues to AM photographic images (2 to be assessed as a DOPS before Part I)
- Minimum 5 dental age estimations range of child, adolescent and adult (2 to be assessed as a DOPS before Part I)
- Minimum 10 trauma assessments (3 to be assessed as a DOPS before Part I including 1 bite mark injury)
- Participate in at least one formally constituted DVI operations (1 to be assessed as a DOPS before Part II)
- Observe and contribute to at least two anthropological skeletal remains analyses (1 to be assessed as a DOPS before Part II)
- Observe at least two full forensic autopsies plus report (1 to be assessed as a DOPS before Part II)

Please note the number that must be assessed using a DOPS form prior to the Part I examinations, these cases are to include a final written report.

Only cases that the trainee has reported should be logged. In superimpositions, dental age estimations and trauma assessments trainees could report on cases held on file up to a maximum 40% of the requirement (such cases are not valid for DOPS assessment). Cases that the trainee has merely observed should **not** be included other than in full autopsy. Observation of autopsy must be attested to by the pathologist in charge.

At the end of the year, the supervisor should sight the log and sign off on the annual supervisor report.

Trainee name			Trainee ID Year of Training				
				1 2 3 4 5			
				If > 5, please specify			
	Date	Type of case	Lab reference number a	nd brief description of case			
	Date	(radiographs, #D	Lab reference namber a	ind brief description of odse			
		digital models,					
		photos, bitemarks,					
		priotos, biternarks,					
		age, trauma, etc.)					

Supervisor name	(print) and signature	datedate
-----------------	-----------------------	----------



Forensic Odontology Significant Incident Report Form

The Toyal College of Tathologists of Australasia			
Trainee name	Trainee ID	Year of Training	
	(RCPA)	1 2 3 4	5
	, ,	If > 5, please specify	
Nature of incident: what happened and v	vhv was it significa	nt?	
	, J		
What led to the incident?			
What led to the incident:			
	0 1121 1		
Action taken at the time of the incident.	Could it have been	handled differently?	
Review of similar incidents			
Actions taken (or needed) to prevent futu	re similar incident	•	
Additions taken (or needed) to prevent rate	are similar moracine	3	
Reflection by trainee			
Supervisor name (print) and signature			Date
Name of laboratory			



Forensic Odontology Research and Scholarship log

(Portfolio Category 7)

How to use this form

Thi	s form	is to	be	used	to r	ecord	that t	he t	rainee	has	engage	ed in	at le	ast 3	3 diffe	erent	activi	ties pe	r yea
thr	ough	out t	rain	ing fr	om	the fo	llowin	g lis	st:										

- Code 7.1 Literature review and preparation of materials (e.g., slides) to support teaching or conference presentation. Record the topic and list the references reviewed. Minimum 1, maximum 3 before Part 1 and between Parts I and II.
- Code 7.2 Present a teaching session (lecture, seminar) for medical students, lab staff, GPs, etc. Attach a reflection on what you gained from the activity (max 1 page). Minimum 2 maximum 4 before Part I. Minimum 2 between Parts I and II.
- Code 7.3 Oral or poster presentation at scientific meeting. Attach a reflection on what you gained from the activity (max 1 page). Minimum 1, maximum 3 before Part I and between Parts I and II. Must participate in 2 annual programs of national forensic/forensic dental bodies by Part I.
- Code 7.4 Publications, journal articles, book chapter, monograph, published or written to a standard suitable for publication. Cite the reference for published works. Attach the manuscript for unpublished works Minimum 2 before Part II
- **Code 7.5** Develop assessments or educational modules for RCPA. Attach a copy or synopsis of material developed. Limit of 2 during training.
- **Code 7.6** Self-assessment activities. Attach a reflection on what you gained from the activity (max 1 page).
- **Code 7.7** Formal self-education study, e.g., on-line educational modules (e.g., College of American Pathologists (CAP) modules), journal review of cases you have worked up. Attach a reflection on what you gained from the activity (max 1 page).
- **Code 7.8** Academic award courses. Attach a copy of transcript of results.
- **Code 7.9** Other (please specify)

For each activity, trainees must write a one-page (maximum) reflection on what they gained from the activity.

At the end of each year, this form, appended reflections and any other appended documentation should be sighted by the supervisor and signed off on the annual supervisor report.

Trainee name				Trainee ID	Year of			
						3	4	5
					If > 5, ple	ease spe	ecify	
	Date	Code	Brief descriptio where relevant)	n of activity (include me	eting nam	e, URL,	etc.	Supervisor signature
		•						

Supervisor name (p	rint)	
Signature		date



Forensic Odontology Quality Activities, Safety Management log (Portfolio Category 8)

How to use this form

This form is to b	e used to	record that	the trainee	has	attended a	at least 2	2 different	activities	per y	ear '	from
the following list											

- Code 8.1 Participate in external and internal quality management, processing external QA samples,
- **Code 8.2** Clinical or case audit, including review of methods. Examples of suitable activities are on the following page.
- **Code 8.3** Participate in and contribution to meetings concerned with introducing new tests or instruments, altered workflow, etc. Examples of suitable activities are on the following page.
- **Code 8.4** Preparation of standard operating procedures
- **Code 8.5** Attend WHS committee, infection control/public health committee.
- **Code 8.7** Complete a WHS-related professional development course.
- **Code 8.8** Complete the eLearning modules in RCPA Education Online on <u>Quality Management</u> and <u>Laboratory Safety</u> and print the certificates of completion for your portfolio.
- Code 8.9 Other (please specify)

For each activity, trainees must write a one-page (maximum) reflection on what they gained from the activity. At the end of each year, this form, appended reflections and any other appended documentation should be sighted by the supervisor and signed off on the annual supervisor report.

Trainee name				Trainee ID	Year of Traini	
					1 2 3 If > 5, please s	4 5 specify
	Date	Code	Brief description of activity location, where relevant)	y (include committee, me	eting,	Supervisor signature

Supervisor name (print)	
Signature	date



Forensic Odontology Ethics, Communication and Teamwork log (Portfolio Category 9)

How to use this form

This form is to b	be used to rec	ord that the traine	e has performed	l at least 2 dif t	ferent activities	per year fro	om
the following list	t:						

- **Code 9.1** Attend departmental management committees, budget meetings, other management-related meetings, and ethics review committees.
- **Code 9.2** Undertake significant management roles, e.g., chairperson, secretary, treasurer of forensic odontology related committees.
- Code 9.3 Complete an ethics related professional development course
- **Code 9.4** Complete the eLearning modules in RCPA Online on <u>Ethics</u> and <u>Cultural Safety</u> and provide evidence of completion in the form of a workbook (ethics) or a certificate (cultural competence
- **Code 9.5** Complete cultural competence training provided by your employer, if a registered health services provider
- Code 9.6 Other (please specify)

For each activity, trainees must write a one-page (maximum) reflection on what they gained from the activity. At the end of each year, this form, appended reflections and any other appended documentation should be sighted by the supervisor and signed off on the annual supervisor report.

Trainee name				Trainee ID	Year of Traini	ng _
					1 2 3	4 5
		r			If > 5, please s	pecify
	Date	Code	Brief description of activity where relevant)	y (including committee na	ame, location,	Supervisor signature
					,	

Supervisor name (print)	
Signature	date

Appendix 6: Forensic Odontology Project Reports

The Part II assessment requires three (3) Forensic Odontology Project Reports of 3000-5000 words. One of these should report the outcome of the trainee's research project, one should be a literature review of an area within Forensic Odontology selected by the trainee, and one should be a Case report of a case undertaken by the trainee (under supervision). These should be of a standard publishable in a journal such as the *Journal of Forensic Sciences*.

The Research Report should document the trainee's research project, its outcome(s) and significance. The case report should demonstrate the candidate's approach to analysing the scientific problem or issue in the case(s) or the population (including a relevant review of the literature) and follow up action/discussion based on principles of Evidence-based Practice. The literature review should demonstrate critical analysis of the literature in relation to a question in Forensic Odontology, drawing together the critical points of view ad arguments in the literature and providing a summary of the current state in relation to the question. It is expected that relevant Reports will demonstrate the candidate's ability to be innovative, assure quality and consider management issues.

Based on the above approach, following are some suggestions appropriate as aims for the Research Report:

- The introduction or development of a new technique/methodology and comparisons with current best practice
- Transference of an existing technique/methodology to a new context and comparing it to current practice
- A study that examines the sensitivity and specificity of a technique/methodology, including positive and negative predictive values in a particular population
- A critical analysis of a recent DVI operation including interviews with the team of pathologists, odontologists and scientists (mandatory if the trainee had not participated in a formal DVI operation)
- A detailed analysis of cumulative laboratory data (including case series)
- A study comparing specialised populations

Please note that the above list is not exhaustive. If trainee(s) plan a different focus they should discuss with their supervisor and submit a brief proposal to the College administration well before commencing the work involved. The Principal Examiner will confirm the appropriateness.

Marking criteria

- 1. Demonstrates one or more of the Report aims
- 2. Demonstrates appropriate principles of Evidence Based Laboratory Practice if relevant
- 3. Introduction discusses the literature and placement of the study in context
- Methodology is appropriate. Method described in sufficient detail to allow the study to be replicated, comments on method selection, method validation, method development and troubleshooting
- 5. Analysis: Quantitative or qualitative
- 6. Results
- 7. Discussion
 - i. Interpretation of results or critical analysis of literature
 - ii. Placement of results in context of the available literature
 - iii. Limitations of the study
 - iv. Lessons derived are adequately discussed; implications are related to the candidate's own situation and the broader context of the field
- 8. Format of the paper
 - i. Complies with the requirements for the Journal Pathology
 - ii. Reference List
 - iii. Writing style syntax, spelling/ typographical errors

iv. Graphs and tables.

The Reports will be independently marked by two examiners in the relevant discipline and candidates will be provided with feedback. Candidates are encouraged to submit their Reports early in Part II, and at least two (2) Reports should be submitted by the end of the fourth year of training.

Reports will be graded as either Satisfactory or Unsatisfactory. Unsatisfactory reports will be returned to the candidate for revision, addressing of feedback, and resubmission to the RCPA for remarking

Candidates are encouraged to publish their Reports subsequent to examination.

Format

- 1. An electronic copy in pdf format should be submitted.
- 2. The first page should have the Trainee's RCPA number and the word count (excluding references). For examination and feedback purposes page numbers should be provided for the whole document and line numbers should be provided for all text.
- 3. The Trainee's name should NOT be displayed anywhere in the document.
- 4. Any information and contributions provided by others should be clearly identified. Do NOT give personal or institutional details of the individuals concerned. The Report submitted should be primarily the candidate's own work and any attribution of authorship should take place at the time of possible publication.
- 5. The manuscript and reference format should comply with the requirements for the journal Pathology.

Declaration of originality

Each Report must be accompanied by a signed declaration of originality. Please use the form on the next page and do NOT incorporate the form into the Report, to preserve anonymity. The College's policy is that Trainees who submit work that is not their own will fail and the matter will be referred to the Board of Education and Assessment.

Submitting the report and originality declaration

Please email the report together with the signed declaration of originality to the RCPA Office at bea@rcpa.edu.au. The declaration and the report will be kept on file electronically at the College. E-copies will be sent to examiners. Please refer to RCPA website for due dates.



Declaration for Forensic Odontology Reports

Trainee declaration:
I certify that this Report, titled:
is my own original work and that the work documented was completed as part of my personal
supervised practice during my accredited training. It has not been previously submitted for
assessment and has not been used by any other trainee in this training location. I have read and
understand RCPA Policy 10/2002 - Plagiarism and Cheating in Examinations.
Trainee NameRCPA ID
Trainee Signature Date
Supervisor declaration:
As the supervisor for, I certify that the work
documented was completed personally by him/her during training. The Report is original and has
not been used by any other trainee in this training location. I have reviewed this item and read the
relevant RCPA requirements and believe it is suitable for submission to the RCPA examiners.
·
Supervisor name (print)
Supervisor signaturedatedate

Appendix 7: Assessment matrix

Code	Domain	Exan	Portfolio							
		Written Paper	Oral Exam	Online Quiz	CbD	DOPS	Case Log	Research Project	Supervisor Report	
1	Discipline-specific activities and outcomes									
1.1	Foundation knowledge of forensic odontology									
1.1.1	History of forensic odontology	P1	Y	Y						
1.1.2	Describe principles, scope and practice of forensic odontology	P1 & P2	Y	Y	Υ				Y	
1.1.3	Identify roles and responsibilities of forensic odontologist	P1 & P2	Y	Y	Y				Y	
1.1.4	Explain digital colour and digital image resolution	P1 & P2	Y	Y	Y	Υ			Y	
1.1.5	Demonstrate basic digital imaging techniques	P1				Y			Y	
1.1.6	Principles of case management and use of evidence	P1 & P2	Y	Y		Υ			Y	
1.1.7	Workplace stress management and well-Being		Y	Y		Υ			Y	
1.2	Anatomy and morphology									
1.2.1	Demonstrate knowledge of human anatomy	P1 & P2	Y	Y					Y	
1.2.2	Demonstrate knowledge of dental anatomy, histology and embryology	P1 & P2	Y	Y					Y	
1.2.3	Demonstrate knowledge of comparative dental and oral anatomy	P1 & P2	Y	Y					Y	
1.3	Forensic pathology									
1.3.1	Recognise and explain post-mortem changes	P1 & P2	Y	Y	Υ					
1.3.2	Discus common causes of adult and child death	P1 & P2	Y	Y	Υ					
1.3.3	Demonstrate advanced knowledge of human histopathology	P1 & P2	Y	Y	Υ	Y			Y	
1.3.4	Demonstrate ability in writing histopathology reports					Y	Y		Y	
1.3.5	Examine and interpret orofacial trauma	P1 & P2	Y	Y	Υ	Υ	Y		Y	
1.3.6	Discuss common features and reporting of child abuse	P1 & P2	Y	Y	Υ	Y	Y		Y	
1.4	Human identification									
1.4.1	Explain principles of human forensic identification	P1 & P2	Y	Y	Υ				Y	
1.4.2	Incorporate social and cultural factors in human forensic identification	P1 & P2	Y	Y	Υ				Y	
1.4.3	Describe retrieval and use of dental DNA for forensic identification	P1	Y	Y		Υ	Y		Y	
1.4.4	Explain the role of fingerprint identification	P1	Υ	Υ						

Code	Domain	Exar	Portfolio							
		Written Paper	Oral Exam	Online Quiz	CbD	DOPS	Case Log	Research Project	Supervisor Report	
1.5	Mortuary techniques									
1.5.1	Perform and document dental post-mortem examinations	P1 & P2	Y	Υ	Υ	Υ	Υ		Y	
1.5.2	Preserve and document post-mortem remains in various states	P1 & P2	Y	Υ	Υ	Υ	Y		Y	
1.5.3	Explain and use alternate light sources for examination and imaging	P1 & P2	Y	Υ	Υ	Υ	Υ		Y	
1.5.4	Prepare and label ante- and post-mortem dental impressions and models	P1				Υ	Υ		Y	
1.5.5	Apply radiographic techniques including plain film radiography and CT	P1 & P2	Υ	Υ	Υ	Υ	Υ		Y	
1.5.6	Discuss and comply with workplace health and safety measures	P1 & P2	Y	Υ		Υ			Y	
1.5.7	Explain and demonstrate forensic photography techniques and skills	P1 & P2	Y	Υ		Υ	Υ		Y	
1.6	Dental age estimation									
1.6.1	Explain normal dental development and chronology	P1	Y	Y						
1.6.2	Select and apply appropriate accepted dental age estimation techniques	P1 & P2	Y	Y	Υ	Υ	Υ		Y	
1.6.3	Discuss statistical basis and application of dental age estimation techniques	P1 & P2	Y	Υ	Υ	Υ	Υ			
1.7	Bite marks									
1.7.1	Discuss the history of domestic and international bite marks cases	P1	Υ	Υ	Υ					
1.7.2	Discuss and apply the principles of bite mark analysis and comparison	P1 & P2	Y	Y	Υ	Υ	Υ		Y	
1.7.3	Explain the scientific limitations of bite mark comparison	P1 & P2	Y		Υ				Y	
1.8	Disaster Victim Identification (DVI)									
1.8.1	Describe the INTERPOL phases of a DVI operation	P1	Y	Y	Υ					
1.8.2	Explain how and why the DVI process may differ in different jurisdictions	P1 & P2	Y	Y	Υ	Υ	Υ		Y	
1.8.3	Discuss the role of the forensic odontology team in the overall DVI operation	P1 & P2	Y	Y	Υ					
1.8.4	Describe the role of the Forensic Odontologist in all phases of the DVI operation	P1 & P2	Y	Y	Υ					
1.8.5	Discuss the role of the Forensic Odontology team leader in a DVI operation	P1 & P2	Y	Υ	Υ					
1.8.6	Discuss the available software aids to DVI	P1 & P2	Y	Y	Υ					
1.8.7	Undertake the Forensic Odontology role in all phases of a DVI operation					Υ	Υ		Y	
1.9	Physical anthropology									
1.9.1	Discuss and apply the principles of Forensic Anthropology in building a profile of a deceased	P1 & P2	Y	Y	Y	Y	Y		Y	
1.9.2	Describe the forensic examination of ancient dental remains	P1	Y	Υ	Υ	Υ	Υ		Y	
1.1	Applied Forensic Sciences									
1.10.1	Explain and conform to local crime scene protocols	P1 & P2	Y	Y	Y	Y			Y	
1.10.2	Discuss the role of the Forensic Pathologist in estimating the time since death	P1 & P2	Y	Y	Y					
1.10.3	Discuss the role of the Forensic Entomologist in estimating the time since death	P1 & P2	Υ	Υ	Υ					

Code	Domain	Ex	ams	Portfolio						
		Written Paper	Oral Exam	Online Quiz	CbD	DOPS	Case Log	Research Project	Supervisor Report	
2	Functions as a manager									
2.1	Leadership								Y	
2.2	Quality management and safety								Y	
2.3	Workplace Health and Safety								Y	
2.4	Regulation and legal requirements	P1	Y	Y					Y	
2.5	Utilisation of resources									
2.6	Information fundamentals									
3	Research and Scholarship									
3.1	Appraising and applying evidence							Y		
3.2	Contributing to research and innovation									
3.2.1	Use databases and conduct online literature research							Y		
3.2.2	Construct written text in a scholarly manner using correct referencing protocols							Y		
3.2.3	Fluently summarise and communicate research to peers							Y		
3.3	Learning and continuing professional development									
3.3.1	Identify learning goals and incorporate into a learning plan									
3.3.2	Seek and accept constructive feedback									
3.3.3	Demonstrate a commitment to career-long learning									
3.4	Educating others									
3.4.1	Demonstrate skills in teaching adults including peers									
4	Professional qualities									
4.1	Professional interactions and communication									
4.1.1	Promote constructive collegiality and a collaborative interprofessional approach									
4.1.2	Establish and maintain clear, effective and respectful channels of communication									
4.1.3	Communicate clearly and authoritatively									
4.1.4	Describe and acknowledge factors that contribute to misunderstandings, differences, and conflicts in workplace and forensic settings, and demonstrate respect for a diversity of perspectives									
4.1.5	Work with colleagues to promote understanding, manage differences, resolve conflicts, and cultivate a collaborative culture									
4.1.6	Employ effective oral, written and electronic modalities to communicate relevant findings, reports, opinions in a clear and timely fashion to, inter alia, coroners, police, families, colleagues, conferences, journals, courts and lawyers									
4.1.7	Play a leading role in multidisciplinary and team meetings, doing background research on agenda items, ensuring all relevant information is at hand, reviewing cases and carrying out or arranging additional work that may have to be done post-meeting									

Code	Domain	Ex	ams	Portfolio						
		Written Paper	Oral Exam	Online Quiz	CbD	DOPS	Case Log	Research Project	Supervisor Report	
4.2	Ethical Principles									
4.2.1	Apply appropriate ethical principles, frameworks and standards to guide personal behaviour and address ethical issues encountered during clinical and academic activities								Y	
4.2.2	Adhere to the applicable codes, guidelines and policies of the RCPA, the Dental Board of Australia, the Dental Council of New Zealand, or other relevant professional bodies at all times								Y	
4.3	Professional conduct									
4.3.1	Exhibit honesty, integrity, respect and empathy with colleagues, other professionals, families and members of the public									
4.3.2	Be aware of your own limitations and seek advice when needed									
4.3.3	Demonstrate significant awareness of, and ability to address your own limitations and blind spots									
4.3.4	Recognise and declare personal conflicts of interest when required									
4.3.5	Recognise and respond promptly and non-judgmentally to unprofessional behaviours or impairment in others, reporting to a relevant authority in accordance with ethical and legal obligations									
4.3.6	Demonstrate a commitment to societal expectations in forensic odontology casework and the maintenance of neutrality									
4.3.7	Recognise the need for a balanced approach when addressing controversial issues and/or competing findings and presenting forensic odontology information in the medico-legal setting									
4.4	Patient Privacy, Confidentiality and Consent									
4.4.1	Comply with legal, ethical and dental requirements related to privacy and confidentiality and obtaining consent from families and others when required									
4.4.2	Consistently maintain confidentiality in the forensic setting, while recognising special limitations on confidentiality for legal and public health purposes									
4.5	Disclosure and Handling of Error									
4.5.1	Comply with workplace requirements for truthful reporting to a senior person in the event of a personal error that could impact on the integrity of an investigation									
4.6	Public health promotion and protection									
4.6.1	Promote the application of forensic odontology and related disciplines to circumstances of humanitarian need and abuses of human rights									
4.7	Cultural safety									
4.7.1	Demonstrate an awareness of cultural diversity (including, but not limited to ethnicity, gender, spiritual beliefs, sexual orientation, lifestyle, beliefs, age, social status or perceived economic worth)									
4.7.2	Acknowledge and reflect on the potential for one's own bias or cultural differences to affect health status and interactions with others									
4.7.3	Advocate for cultural safety in relation to the needs of Aboriginal, Torres Strait Islander and/or Māori peoples, particularly in the context of forensic settings and death investigation									
4.8	Self-Care Self-Care							1		
4.8.1	Monitor your own health and behaviour, recognise and respond appropriately to any condition that may lead to a lapse in capacity, and seek help when required									