

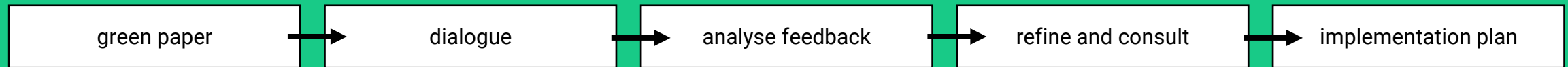
## Medicine Program Redesign

A future focused program:  
proposed changes to year structures

for student consultation

A Green Paper is a consultation document that **details specific issues, and then points to possible courses of action**. The aim of this document is to allow people both inside and outside the organisation to facilitate discussion and provide feedback on the options in the proposal that will inform the implementation of the future program.

The immediate next steps following the distribution of the green paper are:



This is a summary of key points in the Green Paper for students to consider. The comprehensive Green Paper is available for anyone who would like to access.



**UNSW**  
SYDNEY

We acknowledge the Traditional Custodians of Country throughout UNSW Medicine and Health campuses. We recognise the strength and resilience of Aboriginal and Torres Strait Islander people and acknowledge and respect their continuing connections and relationships to country, rivers, land and sea. We acknowledge the ongoing contribution Aboriginal and Torres Strait Islander people make across the health system and wider community. We pay our respects to Elders past and present and extend that respect to all Traditional Custodians of these lands.

# 1. The case for change

UNSW Medicine & Health is at a pivotal moment in health education and healthcare – internal and external drivers are creating disruption. The undergraduate medicine curriculum redesign represents a significant opportunity for the faculty to align our program with the needs of the future health workforce, and to distinguish ourselves as a leading health education provider. The end goal is a contemporary and future-focused medicine program that enables our students and graduates to improve lives in Australia and beyond.

The current 6-year undergraduate medicine curriculum was originally developed in 2002. Innovative for its time, the curriculum has successfully resulted in the graduation of several thousand medical students, and retains its reputation as the most popular first-preference choice in NSW for school leavers in 2018-2022.<sup>1</sup>

However, a decade of rapidly shifting disruption in higher education, healthcare and technology, accelerated further by the COVID-19 pandemic, requires us to think differently to train the next generation of doctors:-

As a faculty, we have some key opportunities we want to explore and leverage for the undergraduate medicine program, such as the:



expanding suite of health programs<sup>2</sup>



Health 25 strategy



Health Precinct partnerships



our clinical campuses

1. Universities Admissions Centre (UAC

2. <https://www.unsw.edu.au/medicine-health/study-with-us/study-areas>)

## 2. Where are we now?

The perceptions of key stakeholders regarding the the current program were determined as part of the needs assessment, and are summarised below. In addition to consulting expert groups both in Australia and beyond, the following faculty stakeholder consultations were held:

- 2.3.1 The Students: All cohorts
- 2.3.2 The Students: Rural cohorts
- 2.3.3 The Students: Graduation class of 2021
- 2.3.4 The Academic Staff: All campuses
- 2.3.5 The Professional Staff: All campuses
- 2.3.6. The Academic and Professional Staff: Rural campus



### Key themes emerging from the student and staff consultations were:

<b>Connections with peers and faculty:</b> highly valued	<b>PRINT:</b> increase time allocated	<b>Clinical placements:</b> review supervision and flexibility for diverse placements	<b>Phase 1 Scenario Groups:</b> review fit for purpose	<b>Phase 1:</b> review flexibility and progression rules	<b>Phase 2:</b> review CMT content	<b>Phase 2, Year 4:</b> address lack of clinical exposure
<b>Phase 2 Placements:</b> review Society & Health options	<b>Phase 3:</b> revise and increase structure and consistency	<b>Phase 3 Assessment:</b> review timing of biomed vivas	<b>QMP:</b> review and address fit for purpose	<b>Cultural Competency:</b> increase development of awareness, skills and confidence	<b>Indigenous Health:</b> increase focus in all discipline curricular	<b>Digital Health Technologies:</b> develop a curriculum and skills framework
<b>Health Systems:</b> increase emphasis and consistency in teaching	<b>Value based healthcare:</b> review fit for purpose	<b>Feedback:</b> increase quality and opportunities in all phases	<b>Assessment:</b> review timing, frequency and framework	<b>Peer Connections:</b> increase opportunities for metro and rural cohort interaction	<b>Timetable:</b> increase consistency and decrease frequency of late changes	<b>Rural cohorts:</b> increase interaction with academic staff in Kensington

## 3. Where do we want to be?

UNSW Medicine & Health aims to develop compassionate innovators and global leaders in health through transformative education and learning experiences. The actions we set in motion here will be felt across Australia's health landscape for years to come. As lifelong education partners for our students and alumni, our vision for education is bold, yet simple: to develop compassionate innovators and global leaders in health. As part of this vision, the ambitious project of redesigning our undergraduate Medicine program incorporating the future focused priorities of our students and staff, as well as the needs of the health workforce into the 21<sup>st</sup> century is a significant opportunity.

We have summarised the priorities for the future program, under the following headings:

- 3.1 Priorities for the curriculum content
- 3.2 Priorities for the student experience
- 3.3. Priorities for the faculty experience



Video: [Vision for the UNSW future focussed Medicine Program](#)

## 3.2 Priorities for the student experience

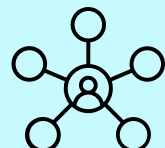
1. Connected in a psychologically safe, personalised learning environment to take measured risks and develop dispositions for safe effective practice, and to flourish in society
2. Immersed in a supportive community to collaborate with peers across year cohorts and programs to learn through real world experiences,
3. Core curriculum digitally connected and delivered through cutting edge, engaging content and meaningful experiences across disciplines, digital platforms, campuses
4. Connected across disciplines, and immersed in local communities to develop cultural awareness and competency to address the individual health care needs of diverse people and communities
5. Supported by the academy of educators, clinicians, practice experts and other professionals through immersive learning experiences, longitudinal coaching, and mentoring to develop skills to manage complex scenarios, and foster dispositions for lifelong learning
6. Supported through feedback and reflection to take increasing responsibility and accountability for tasks in supervised environments
7. Empowered with skills to engage with, and to effectively use emerging healthcare technologies now and into the future
8. Connected in a social learning community to discover, debate, advocate, and contribute to co-design and expand experiences
9. Connected with health professionals, researchers and industry to develop individual interests, and to personalise the learning journey through bespoke health and industry placements,
10. Connected beyond the program to innovative ideas, industries and people outside of healthcare to develop diversity of thought and creativity enabled to address tomorrow's challenges, uncertainty and change



student mastery +  
flourishing



immersive  
communities



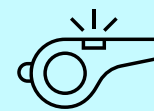
connected  
curriculum



culturally aware  
and competent



lifelong  
learning



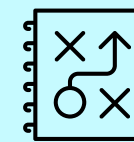
coaching and  
mentoring



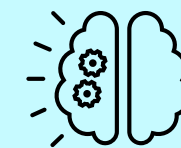
comfort with  
technology



self aware



personalise  
experience



diversity of  
thought

## 3.4 Proposed Program Delivery Framework: at a glance

The proposed program design is a flexible mesh able to adapt to expanding knowledge, new science and technologies, and models of healthcare. The pedagogy pivots on an active learning community forming an academic alliance around an integrated curriculum that enables mastery of generalist knowledge and skills and dispositions towards an inquiry and growth mindset. Application of learning and development of professional identities is facilitated by early and continuous exposure to community, clinical, longitudinal and exploration placements, and a supportive learning environment provided by near peer-teachers, academic coaches, and mentors. Students can expand and personalise their learning through opportunities to explore areas of personal interest and emerging importance in healthcare.

- **Years 1 to 2** provides a strong case-based integration of the sciences. In these years students master knowledge and develop competency in a range of clinical skills relevant for a generalist focus. The integrated cases progressively develop in depth of integration and application. Core content is delivered through online modules so that face to face time can be focussed on discussion, debate and deeper exploration through critical thinking and problem solving with faculty and peers.
- In **Year 3**, students continue in case-based inquiry-driven learning with increasingly complex cases. Students have opportunities to develop teamwork and communication skills as advocates for patients in clinical teams. In this year, students negotiate their MD/Honours projects and develop their project proposals. Experiences in longitudinal GP placements allow students to develop and apply generalist knowledge within communities.
- **Year 4** of the program enables students to explore areas of special interest through the MD/Honours research, and 'explore' placements in diverse industries (e.g., engineering) and settings (e.g., remote placements). Students develop experience in emerging models of care such as virtual health and ambulatory placements. In this year, student also continue in longitudinal care GP placements.
- **Year 5** allows students to complete a range of clinical clerkships and revisit foundation interdisciplinary concepts in biomedical, health systems and clinical sciences.
- **Year 6** launches students into a year long program that prepares them for practice and provides opportunity for 'just in time' learning that aligns with their learning plans.

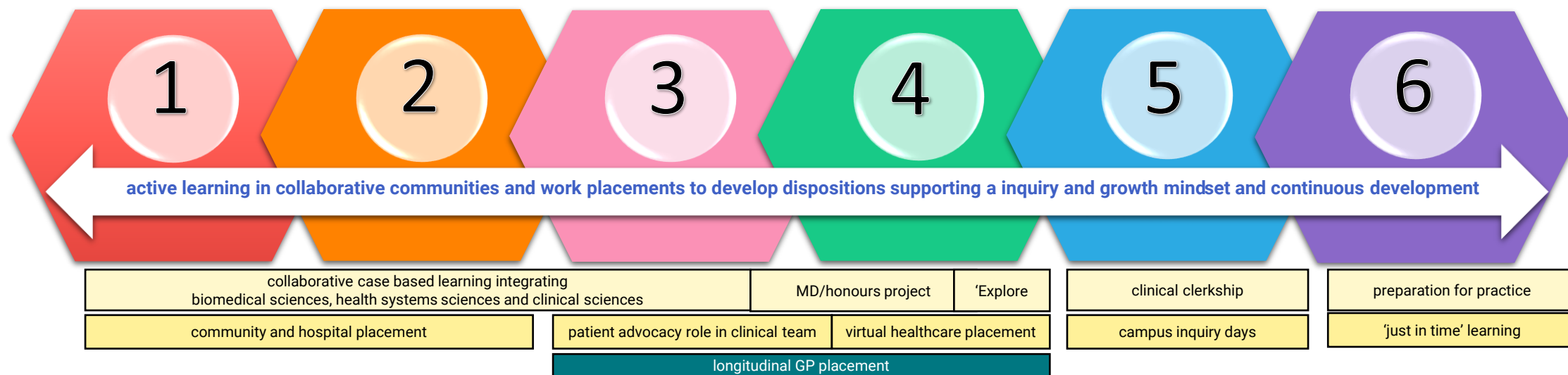


Figure 1: Framework for Years 1-6 of the program



## 4.2. Proposed Structure

### 4.2.1 Overview of Proposed Options for Year Structure

#### Year 1 & 2: Collaborative Discovery and Integration

Courses		3 days campus	1 day hospital/ community placement	1 day flexible learning
OPTION 1	Option 1: 3 x integrated 16 UoC courses a year x 2 years = 6 courses			
	Y1	course 1	course 2	course 3
Y2	course 4	course 5	course 6	
OPTION 2	Option 2: 1 integrated 48 UoC course per year x 2 years = 2 courses			
	Y1	Year 1, year long course		
Y2	Year 2, year long course			

**Option 1:** three courses each year integrating biomedical, health systems & clinical sciences; each course aligned to UNSW 3 terms  
 Several suggestions for course focus; e.g. cardiorespiratory/vascular; renal/metabolic/clinical pharmacology; GIT/nutrition; neuro/ophthalmology/mental health; MSK/autoimmune; repro/endocrine/sexual health/pregnancy QR cardiopulmonary/renal; GIT/Nutrition; MSK; Head/Neck/Neuro; Haematology/Immunology; Reproductive/Endocrine, QR a system/symptom in 2 week blocks across the year/course

**Option 2:** each year has one year long course, with activities aligned to UNSW 3 terms; content in 2 week blocks focussing on a system/symptom

Course content integrates biomedical, health systems and clinical sciences; course structured around weekly cases that culminates in a case based collaborative learning workshop. Students develop conceptual frameworks to understand the scientific basis of disease and social determinants of health. Students work across year groups and programs in integrated projects, and are supported by learning coaches.

**Conceptual content** delivered via online interactive modules in a centralised repository  
**Immersive Aboriginal and Torres Strait Islander culture and community experience early in Year 1.**  
**Face to Face Learning:** learning 'lectorials'/tutorials, hands on practical and clinical skills sessions, masterclasses and conferences/expos, weekly case based collaborative workshop, learning coach sessions, and near-peer led learning circles  
**Placements:** hospital and community, e.g. pharmacy, rehab, disability care, physio, occupational health, speech pathologist, optometry, podiatry, dentistry, aged care, child care, ambulance, hospital in the home, pathology, radiology, practice nurse, midwife, community polyclinic  
**Explore and personalise:** assignments, Y1+2 combined project, IPE combined Project, Conference, Expo, Hacks

#### Year 3: Practice-Based Integration and Application

Courses		2 days campus	3 days hospital/ GP placement	ILP/Honours project: proposal, lit review and presentation
OPTION 1	Option 1: 3 integrated 16 UoC courses for the year			
	Y3	Adult Health 1	Adult Health 2	Oncology + Pall Care
OPTION 2	Option 2: aligned with the structure of Year 1 and 2 (one of the two below, depending on the option selected)			
	Y3	course 1	course 2	course 3
		Year 3, year long course		

**Option 1:** five courses in the year aligned with UNSW 3 terms; society and health embedded in each course,  
**Option 2:** closer alignment with Year 1 and 2 but with cases increasing in complexity and focus on applying and integrating foundation concepts. Alignment with year 1 and 2 has the advantage of streamlined and scaffolded learning, reduced content duplication, and closer integration of clinicians with teaching in earlier years

Course content integrates biomedical, health systems and clinical sciences with increasing complexity. Courses are based on weekly cases and culminates in the case tutorial. Students learn through clinical experiences in clinical placements; students integrate into clinical teams as patient advocates. Students begin to explore research through negotiating a project and analysing the literature. Students supported by learning coach and clinician tutors.

**Conceptual content** delivered via online interactive modules in a centralised repository  
**Face to Face Learning:** tutorials and practicals, clinical skills, end of week case based tutorials: exploring symptoms and developing clinical reasoning, interprofessional education  
**Placements:** hospital and community placement and longitudinal GP placements. Students integrate into clinical teams as patient advocates  
**Explore and personalise:** ILP and honours projects; placement to build Indigenous and diverse communities knowledge





# Year 4: Personalised Inquiry Driven Learning

## Personalised learning pathways

<b>MD (ILP) Project*</b> Term 1-2: 2-2.5 days/week: data collection, analysis, possible to include final report submission in T3*	<b>Clinical Placement</b> Term 1-3: 1 day/week hospital, GP, polyclinic placement + 1 term of 1 day virtual/home-based care placement	<b>General Education, Intercalated/ *Credentialed Course Work/Short Courses</b> Term 1-2, 1.5 days/week negotiated	<b>Honours</b> Term 1-3, 2-3 days/week	<b>Explore placement</b> Term 3: 3 days/week
--	--	---	---	---

**Students personalise year:** Students focus on areas of personal interest with pathway options that include intercalating credentials such as microcredentialled short courses, graduate certificates and diplomas. In this year, students can begin course work leading to intercalated credentials to be awarded with the MD; \*Graduate Diplomas, for example, require at least 36 UoC – students will be able to take the relevant courses over the three terms, similar to coursework-intensive Honours. Students are also able to complete one term in an 'Explore' placement that focusses on a different area of interest and/or extends their cultural knowledge through placements in different parts of Australia or the world, or through experience of a model of care (e.g. home based care). Clinical and exploration placements may use an electronic-like 'white' book and/or EPAs to frame the relevant skills and competency.

\*MD project negotiation, literature review and presentation is in Yr3

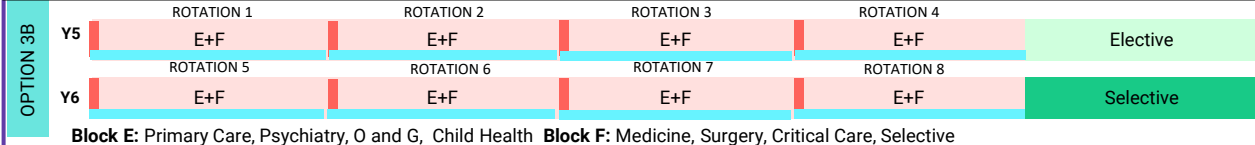
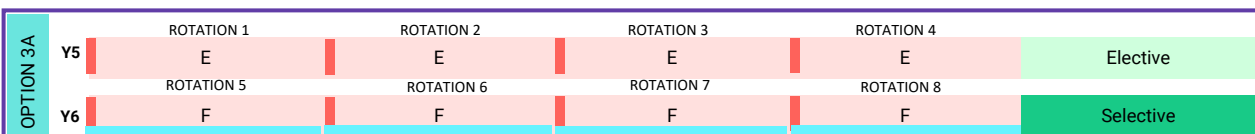
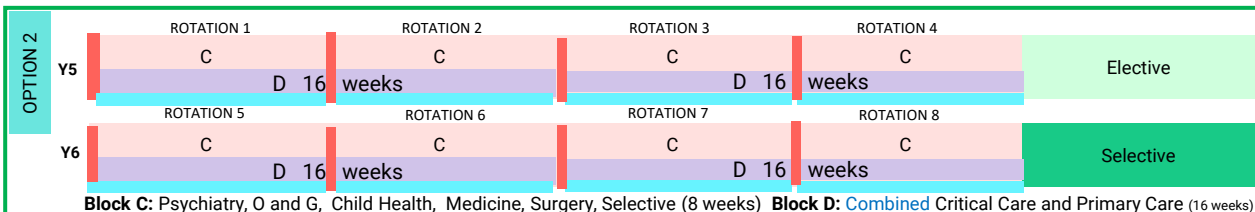
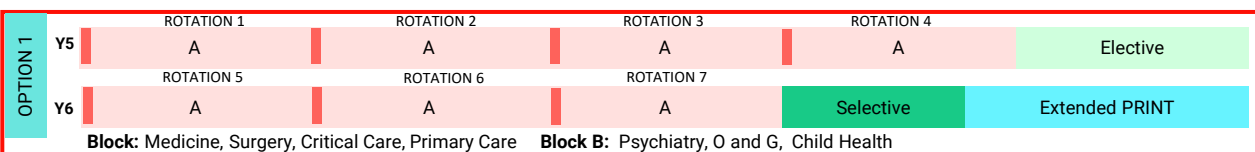
Note: there is an option to include a block rotation in Year 4, T3!

Focus on student discovery and exploration of learning. Students engaged in data collection, analysis and project reporting. Students extend learning through coursework for honours OR intercalated credentials. Students supported in planning learning pathways; coursework negotiated with learning coach and approved by 'pathways' committee. Students develop skills as patient advocates in hospital placements. Students supported by learning coach, clinician (?GP) mentor, and through learning circles (small groups focussed on reflection and connection when geographically distant).

**Face to Face Learning:** immersive research and inquiry skills development; 2 days per course work  
**Explore and personalise** through research experience, opportunities for intercalated degree course work, interprofessional education, industry placement, placement to build cultural knowledge  
**Placements:** Longitudinal GP/polyclinic placement + **home hospital/virtual healthcare placement**  
**Term 3 exploration placement:** Personalised placement to explore an area of special interest e.g., technology, business, industry, start-up, venture capitalist placement, OR community/rural/remote/metro placement, 'humanitarian' placement

# Year 5 & 6: Clinical Clerkship immersed in Teams

clinical rotations	elective/selective block	preparation for internship
--------------------	--------------------------	----------------------------



central campus teaching block Preparation for Practice

Focus on embedding and integrating students into clinical teams and community of practice. Students supported by learning coach and clinician mentor.

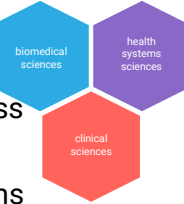
**Conceptual content:** delivered via a central repository of core interdisciplinary learning resources and program of co-ordinated interdisciplinary teaching - "campus teaching and learning blocks".  
**Self-directed learning supported by face-to-face learning and immersion in clinical teams (hospital and community):** Clinical bedside teaching with patients. Learning by observing, doing, receiving feedback and reflection. Simulated prescribing. Communication and Teamwork skills. Fundamental skills for Internship. Workplace-based assessments. Entrustable professional activities

**Option 1: PRINT extended to a 10-week placement** with either a single Medical or Surgical team allowing for longitudinal learning and establishment of relations with peers, patients, and their clinical team and workplace. This would reflect the current workforce model of internship rotations which are typically ~10 weeks duration.

**Option 2: Longitudinal placements combining Critical Care / Primary Care placements as a 16-week block with these disciplines split during the week** (e.g. Week A = 2 days Emergency, 3 days Primary Care; Week B = 3 days Emergency, 2 days Primary Care). Year 5 and 6 of the program designed with a Preparation for Practice framework delivered in parallel with the discipline courses. Students would engage in teaching and learning that achieve the learning outcomes of the discipline and preparation for practice program (with students gradually increasing their (supervised) responsibility and accountability for pre-internship tasks over Years 5 and 6).

**Model 3a:** Year 6 designed with a **Preparation for Practice framework delivered in parallel with the discipline courses of Medicine, Surgery, Critical Care and Selective**. Students would engage in teaching and learning that achieve the learning outcomes of the discipline and preparation for practice program.

**Model 3b:** Year 5 and 6 designed with a **Preparation for Practice framework delivered in parallel with the discipline courses**. Students would engage in teaching and learning that achieve the learning outcomes of the discipline and preparation for practice program (with students gradually increasing their (supervised) responsibility and accountability for pre-internship tasks over Years 5 and 6).



## 4.2.2 Year 1 and 2 Proposal: Broad Outline

Year 1 enables students to develop a sense of belonging as they transition into the medicine program. Learning coaches and activities that engage the entire cohort are an important aspect of developing the social learning community, as well as promoting self-motivation and accountability.

At a high level, the proposal is to uncouple Year 1 and 2 delivery. Option 1 adopts a pattern of three courses of ten weeks (one week of which is a flex week with no activities scheduled) in each year. Alternatively, Year 1 and Year 2 could be arranged as full-year courses (Option 2). The proposal to uncouple Year 1 and Year 2 has several advantages:

- optimises the flow of content delivery for each year cohort and reduces duplication,
- prevents significant delays in student progression,
- allows the opportunity for flexibility and part-time study options,
- enables interprofessional experiences with all M&H programs on the same course pattern,
- aligns with the university terms for staff teaching across programs,
- aligns with university workflows such as examinations and timetabling, and
- provides a mid-term break to consolidate learning, access community placements, and for self-care.

In both Option 1 and 2, course delivery will be based on the case based collaborative learning (CBCL) model. Conceptual content will predominantly be delivered by interactive online learning packages enabling flexibility for students, who will have one day of unscheduled activity to focus on asynchronous content (Fig. 7). In person activities will focus on experiential and active learning including through laboratory and clinical skills sessions, 'lectorials' and tutorials, course welcome days and master classes with discipline experts. Clinical skills integrate and sequence more closely with biomedical sciences, particularly anatomy delivery.

The weekly cases integrate the biomedical, health systems and clinical sciences, and will be developed in collaboration with clinical discipline experts from all campuses. Each week ends with a collaborative case-based workshop, which is:

- An active learning session where students work in teams (students demonstrate

preparedness for the workshop by completing an individual readiness assessment);

- facilitated by a team of biomedical science, clinical science, health systems science academics and an external expert, if required;
- focused on critical thinking, debate and communication, application of learning, individual and team accountability;
- based on discussion of an integrated case and progressively becoming more complex through each course and year. Cases will focus on clinical presentation (predominantly), multidisciplinary team-based care, ethics, population health, health systems, evidence-based practice, technology integration and digital skills e.g., digital monitoring, medical record keeping, virtual health, simulation/immersive experience, interprofessional learning.

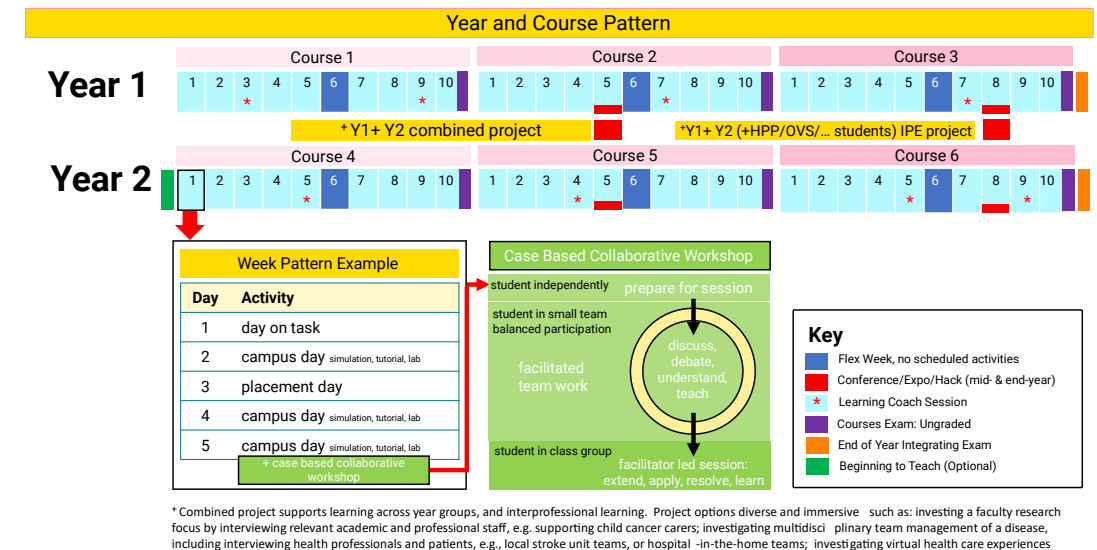


Figure 7: Outline of structure of Year 1 and Year 2 for Option 1. Each year consists of 3 courses aligned with the UNSW 3 terms. Each course is 10 weeks long, and has a week mid-term that is a flex week in which no activities are timetabled. Students meet with learning courses at scheduled times in each course. Each week's activities are focussed on a weekly case, and culminates in the end of week case-based collaborative learning workshop. In each year, students will complete two projects with teams across year cohorts and across programs. The mid-term and end-term conference and Expos are opportunities for students to present their projects, and engage with researchers and with industries. Students in Year 2 have the option of completing a Beginning to Teach module in O-week of Year 2, term 1. This will badge them to support students in Year 1 as near-peer tutors. Note, Option 2 follows the same model except each year consists of a year long course



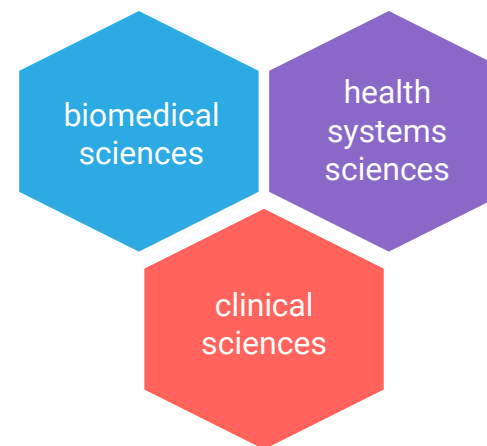
Embedded throughout the program is interprofessional education (IPE). Students will be able to engage with other students from programs across the faculty, and potentially with students from other faculties, such as from engineering, law and computer science. IPE activities will be in a variety of forms and include working in teams on common activities such as trans-disciplinary projects and hacks, simulation experiences, and case-based activities. The mid-year conference aims to bring student year cohorts together to showcase their activities and creativity. The end-year conference is similar to the mid-year conference, but includes students from other programs and Expo, which brings health industries to campus to expand students' learnings and to explore interests and opportunities for creative placements. The Expo could take a variety of forms such as industry table/booth demonstrations and/or health hacks.

Students will have 1 day per week (different for year cohorts) in placements and will include hospital placements and community placements. Community placements will require developing a community network at both Kensington and the rural campus. Examples of community placements include students at pharmacy, rehab centres, refugee centres, disability care, physio, occupational health, speech pathology, optometry, podiatry, dentistry, aged care services, day care services, homeless services, health within correctional facilities, ambulance, hospital in the home, pathology, radiology, practice nurse, midwife, and community polyclinic. Students will be supported to explore placements that increase their awareness and understanding of Indigenous health and the health care needs of diverse communities, and social determinants of health.

Each course will embed a variety of formative assessments with rich feedback (including the learning coach reflection and feedback), as well as an ungraded, i.e., Satisfactory / Unsatisfactory, end of course examination. The course will also include students completing an individual assignment mapped to graduate capabilities. An integrated barrier examination of knowledge and skills will be

included at the end of Year 1 and Year 2. Students also have the opportunity to complete two projects each year in a team that includes students from other year cohorts and/or other programs; one project is an IPE project. The project output is presented at the mid- and end-year conference, where it is assessed, and feedback is provided. Clinical skills are assessed throughout the year. Learning coaching is linked to formative assessments. Students are responsible for directing and determining the agenda for each coaching session. Both student reflection and coach feedback form part of the programmatic assessment 'data points'. Programmatic progression judgement occurs at the end of Year 2.

The focus of Year 1 and 2 is to provide students with a firm foundation of conceptual clinically oriented knowledge and clinical skills that encompasses cognitive, affective and behavioural learning integrating the biomedical, health systems and clinical sciences. The integration of these three domains continues into years 3-6.





## 4.1.2 Year 3 and 4 Proposal: Broad Outline

Years 3 and 4 enable students to focus in on the development of medical knowledge, inquiry-driven critical thinking and decision-making, professional identity and clinical skills. Students have options to pursue special interests through opportunities to personalise the learning journey. Year 3 and 4 also present an ideal opportunity to expand on interprofessional learning from Years 1 and 2, and to focus on longitudinal placement opportunities.

**Year 3** will continue the weekly case-based learning model with clinical experience framing learning. Students' concerns regarding variable delivery of core content across campuses will be addressed through development of engaging, interactive online learning modules. A centralised repository of modules will be developed and curated by experts across all campuses. Mapping of discipline content and learning outcomes via a visual dashboard will allow students to track and master their learning. This proposal also allows faculty across all campus to be engaged in creating digital content and embedding diverse clinical contexts (e.g., regional and remote health). Each campus will continue to be able to offer bespoke experiences for students, increasing opportunities to develop areas of special interest. During hospital placements, clinical tutors will be supported with a comprehensive curriculum map to provide structure at each site. Investment in educational technology will increase opportunities for students to learn via immersive experiences such as simulation and virtual reality. As identified in consultation with staff and external stakeholders, it is necessary to ensure that our students master generalist skills and multidisciplinary collaboration. This will be supported by increased opportunities for **longitudinal community and GP placements**, supported by the development of GP and community networks.

The proposal is also for students to commence **ILP and Honours projects** in Year 3, where they will negotiate project topics, present project proposals and complete their literature reviews. Presentations associated with this aspect of the projects will be synchronised with the conferences and expos in year 1 and 2.

In **Year 4**, students will spend the equivalent of 2 days per week on data collection, analysis and a final report for the project over the first two terms. Honours students may require 3 days/week. The remaining 3 days per week (2 days for Honours) will be the opportunity for students to negotiate and personalise their learning by completing selective courses, short microcredentialed courses and courses for intercalated degree options. Students will also be able to access remediation and mastery opportunities to dig into areas of need and interest.

Students will spend 1 day per week in GP/polyclinic clinical placements and where available may take up the opportunity to complete a 'home hospital' and/or 'virtual care' placement partnering with industries with increasing focus on these models of care e.g. [Medibank Health](#) and St Vincent's Private Network. Term 3 is a unique exploration placement term. Students spend the term in an industry or at an 'other' professional placement, alongside their usual clinical placement. This placement may be with industry (e.g. to develop digital and technology skills) or with professions such as law, engineering and computer science or in a remote or regional healthcare setting. Students will work with learning coaches to set goals for the 'explore' placements.

Students will have the option of **personalising learning** by tacking on additional credentials such as short courses, graduate diplomas and additional degrees. Examples of these additional credentials that were identified in the external and student consultations are:

### Graduate Diplomas and Short Courses

- Drug Discovery
- Big Data
- Preventative Healthcare
- Practical Medical Genomics
- Digital Healthcare
- Medical Education
- Surgical Anatomy
- Cancer Sciences
- Clinical Neurosciences
- Medical Imaging & Visualisation
- Health Technology Innovation & Entrepreneurship

### Intercalated Degrees:

- M. Public Health
- M. Biomedical Engineering
- M. Business & Leadership
- M. Law & Legal Studies

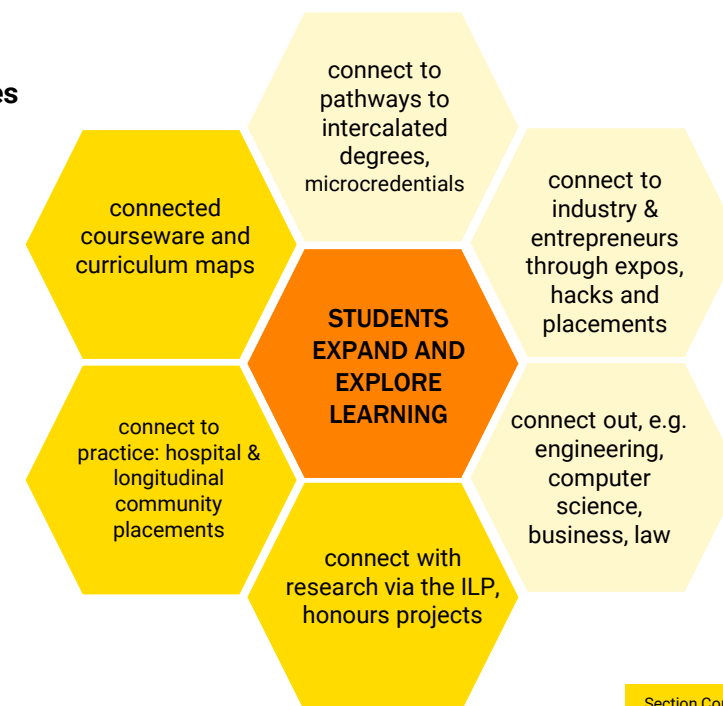


Figure 8: Outline of focus of Year 3 and Year 4.



# Placements: increasing variety and options

Clinical placements are a key component of medical curricula and are vital in preparing work-ready graduates.<sup>1</sup> The value of well-supervised clinical placements is well documented<sup>2-4</sup> - particularly, if regular, constructive feedback is provided<sup>5</sup>. Immersing students in the community and in longitudinal placements is integral for developing the cognitive, affective and psychomotor domains of learning needed for the health workforce of the future.

## General Practice Placements

The multidisciplinary, holistic healthcare approach of general practice offers significant benefits for student learning, including: exposure to undifferentiated presentations; refinement of diagnostic skills; and improved understanding of preventive care, chronic disease management, mental health and population health.<sup>7</sup> Students must also appreciate that a significant part of their patients' health care occurs in the community and must be able to effectively facilitate care for patients within this setting. For general practitioners who provide placements for medical students, there is significant concern about the burden for the clinic (workload, time constraints) without reward, and lack of training to supervise students and provide feedback. However, our patient and community consultation found that patients enjoy engagement with students and contributing to their education. Research<sup>5</sup> aligns with the outcomes of consultations with students too, which highlights that students are highly motivated when they have a sense of responsibility and accountability, through undertaking tasks such as taking a history, examining a patient and summarising findings, helping with wound dressings and immunisation, and also assisting in administration that helps students to understand practice software and Medicare billing.

Developing our faculty network to enable increased general practice placements are imperative for the medicine program, and plans are underway to establish an academic GP network (led by Associate Professor Joel Rhee).

## Community Placements

Community placements offer an important avenue for students to explore social determinants of health and to develop clinical communication skills, especially in the early years of the program. Opportunities to increase the diversity of placements, particularly longitudinal placements, include partnering with local Aboriginal and Torres Strait Islander communities and the HTH community facing activities are imperative for the future program. Development of a community placement network would assist with establishing and sustaining placements with practice nurses, midwifery, pathology laboratories, radiology, pharmacy, physiotherapy, podiatry, dentistry, speech pathology, occupational therapy, Safe Work, dentistry, child care, aged care, rehab care, disability care, ambulance services, hospital in the home, and polyclinics.

## Explore Placements: Other Professions and Industry Placements

Tomorrow's problems will need transdisciplinary solutions. While integration between medical disciplines has been a dominant topic in medical education for decades, emerging in the last 5 years has been a sharper realisation that students need transdisciplinary thinking. From external consultation, an important aspect for consideration in the future program is to increase our students' exposure to industries and professionals outside of medicine and health, such as engineering and computer science. In addition to the interprofessional learning and personalisation of learning, students will be exposed to industry through Expos and Hacks in year 1 and 2. Year 4, Term 3 offers a unique opportunity for students to explore industry and other professional placements (e.g. law and business) through an exploration placement. The goals for the exploration placement will be determined with input from each student's learning coach and will be reviewed as part of their portfolio. These goals could broadly align with acquisition of skills in digital technology, data management, project management, change management, assessment and evaluation, etc.

Drawing from Koens' work<sup>6</sup> on contextualising learning to clinical contexts, diverse placements vertically integrated through the program are likely to affect students' professional identity formation individually as well as collectively. Early exposure to clinical environments, highlights to students the continued need for a solid foundation in the biomedical sciences to enhance patient care.

A stepwise increase in clinical responsibilities and enhances students' professional identity formation. Simultaneously, at the social level students gradually move from peripheral to full participation in the community of practice as they progress through community, hospital, and longitudinal placements and finally into clerkship and PRINT. The progression from the periphery inwards, helps internalise norms and values and develops a goal- and action-oriented mindset, internalising the continuum of reflection and learning for medical doctors. Ten Cate and Carraccio<sup>7</sup> have recently suggested a less strict emphasis of the transition from supervised to unsupervised practice, with the view of developing in students a mindset that graduation is the first significant step in the continuum of learning where the development of competence and identity progresses but is never completed.

1.Strand P, Edgren G, Borna P, Lindgren S, Wichmann-Hansen G, Stalmeijer RE. (2015). Conceptions of how a learning or teaching curriculum, workplace culture and agency of individuals shape medical student learning and supervisory practices in the clinical workplace. *Adv Health Sci Educ Theory Pract* 20(2):531-57.  
 2.Sturman N, Régo P, Dick ML. (2011). Rewards, costs and challenges: The general practitioner's experience of teaching medical students. *Med Educ* 45(7):722-30.  
 3.Baldor RA, Brooks WB, Warfield ME, O'Shea K. (2001). A survey of primary care physicians' perceptions and needs regarding the precepting of medical students in their offices. *Med Educ*;35(8):789-95.

4.Dornan T, Littlewood S, Margolis SA, Scherpbier A, Spencer J, Ypinazar V. (2006). How can experience in clinical and community settings contribute to early medical education? A BEME systematic review. *Med Teach* 2006;28(1):3-18.  
 5.Kandiah DA. (2017). Perception of educational value in clinical rotations by medical students. *Adv Med Educ Pract* 8:149-62. doi: 10.2147/AMEP.S129183.  
 6.Koens F. Vertical integration in medical education - studies on the required basic science knowledge and the concept of context. Doctoral dissertation. Utrecht: Utrecht University; 2005.  
 7.Ten Cate O, Carraccio C. Envisioning a true continuum of competency-based medical education, training and practice. *Acad Med*. 2019;94(9):1283-8.



## 4.1.3 Year 5 and 6 Proposal: Broad Outline

Student consultation feedback has indicated a need for more direction to guide their learning in Phase 3. This will be achieved by two key enhancements being introduced:

- a structured syllabus which maps the clinical experiences and presentations required in each year during each clerkship, and
- Entrustable Professional Activities (EPAs) which provides a framework for students to gather evidence (workplace observations) to demonstrate that their preparedness for practice with a degree of supervision appropriate to their level of training.

Recognising the diversity of local clinical learning experiences and health resources, clinical campuses and disciplines will be supported to design and develop innovative campus and site-specific teaching programs that map to the enhanced curriculum document

### **Core learning experiences and resources for all students with an integrated interdisciplinary core curriculum and an increased focus on generalist skills**

Embedding a framework with the delivery of some of the core disciplinary educational content delivered in integrated interdisciplinary teaching and learning activities in Phase 3 will allow both a minimisation of repetition and overlap of teaching learning activities amongst the disciplines and also promote an approach to learning that fosters student development of generalist knowledge and skills.

Integrated interdisciplinary delivery of core educational content through:

- a central repository of core interdisciplinary learning resources available to all students across all campuses
- a centralised program of co-ordinated interdisciplinary teaching - “campus teaching and learning blocks” where different disciplines come together to facilitate students understanding of common and important clinical problems or themes through different lenses
- opportunities to achieve learning outcomes through seeking learning experiences and completion of course assessments within other disciplines – encouraging the development of generalist skills.

### **The importance of the clinical application of the Biomedical Sciences**

Feedback from consultation with the specialist medical colleges and current students and alumni recognises the importance of a curriculum that embeds the application of the biomedical sciences into clinical practice. Our current Biomedical Sciences program reflects this and is a current strength to be enhanced in the future program.

### **Personalised learning and development opportunities**

Personalised learning opportunities to continue to enhance in the future program include facilitation of rural and regional experiences and global health experiences with the Elective and Selective courses. The Selective course allows for personalised development through exploration of interests and the extension of clinical experiences and/or the flexibility to facilitate of individualised learning where additional student support is needed.

Expansion of the Elective course to include non-medical health profession clinical placements or medicine-related but non-clinical placements (e.g., health law, health administration, health policy and advocacy, health communication and journalism) would further expand student’s choice and personalization of their program.

The possibility of “including a block rotation in Year 4, T3 to be explored in order to facilitate / enable the delivery of 7 discipline block rotations, both the Selective and Elective courses, and an extended PRINT experience.

### **Preparation for clinical practice - Extended PRINT and a more longitudinal approach to learning**

The most productive clinical placements occur when students are assigned appropriate levels of responsibility for patients and tasks and included as members of their clinical team.

Three options for the structure of year 5 and 6 is provided on the next page. Embedding a framework of Entrustable Professional Activities in the final years or the program within the proposed Extended PRINT (model 1) or Preparation for Practice course (model 2 and 3) would foster a culture of feedback and assessment for learning. The EPA framework would allow students to be assigned appropriate levels of responsibility for patients and tasks. Tasks are designed for students to master skills to prepare for clinical practice and to also develop their clinical reasoning skills and clinical knowledge within the discipline rotations.



**Model 1: Extension of the PRINT course to a single 8 to 10-week clinical placement** with the student placed for the duration of the course with a single Medical or Surgical hospital team allowing for a more longitudinal approach to learning and establishment of relations with peers, patients, and their clinical team and workplace. This would reflect the current workforce model of internship rotations which are typically ~10 weeks duration.



**Model 2: Longitudinal placements combining Critical Care / Primary Care placements as a 16-week block with these disciplines split during the week** (e.g Week a = 2 days Emergency, 3 days Primary Care; Week b = 3 days Emergency, 2 days Primary Care). Year 5 and 6 of the program designed with a Preparation for Practice framework delivered in parallel with the discipline courses. The curriculum would be designed with students engaging in teaching and learning activities and assessments that achieve the learning outcomes of both the discipline courses and the preparation for practice program (with students gradually increasing their (supervised) responsibility and accountability for pre-internship tasks over Years 5 and 6).

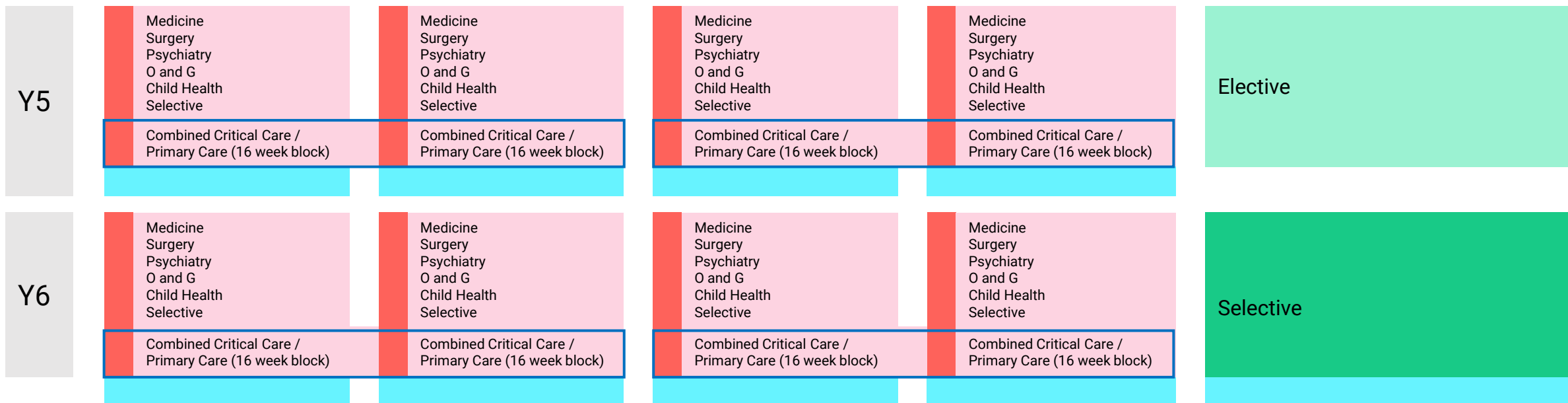


Figure 9: Alternate models for Year 5 and 6 structure.

■ central campus teaching block  
■ preparation for practice



**Model 3a:** Year 6 is designed with a **Preparation for Practice framework delivered in parallel with the discipline courses of Medicine, Surgery, and Emergency/Critical Care.** Students would engage in teaching and learning activities and assessments that achieve the learning outcomes of both the discipline courses and the preparation for practice program

Y5	Primary Care Psychiatry O and G Child Health	Primary Care Psychiatry O and G Child Health	Primary Care Psychiatry O and G Child Health	Primary Care Psychiatry O and G Child Health	Elective
Y6	Medicine Surgery Critical Care Selective	Medicine Surgery Critical Care Selective	Medicine Surgery Critical Care Selective	Medicine Surgery Critical Care Selective	Selective

**Model 3b:** Year 5 and 6 is designed with a **Preparation for Practice framework delivered in parallel with the discipline courses.** Students would engage in teaching and learning activities and assessments that achieve the learning outcomes of both the discipline courses and the preparation for practice program (with students gradually increasing their (supervised) responsibility and accountability for pre-internship tasks over Years 5 and 6).

Y5	Medicine. Critical Care Primary Care O and G	Surgery Selective Psychiatry Child Health	Medicine. Critical Care Primary Care O and G	Surgery Selective Psychiatry Child Health	Medicine. Critical Care Primary Care O and G	Surgery Selective Psychiatry Child Health	Medicine. Critical Care Primary Care O and G	Surgery Selective Psychiatry Child Health	Elective
Y6	Medicine. Critical Care Primary Care O and G	Surgery Selective Psychiatry Child Health	Medicine. Critical Care Primary Care O and G	Surgery Selective Psychiatry Child Health	Medicine. Critical Care Primary Care O and G	Surgery Selective Psychiatry Child Health	Medicine. Critical Care Primary Care O and G	Surgery Selective Psychiatry Child Health	Selective

■ central campus teaching block  
■ preparation for practice

Figure 9: Alternate models for Year 5 and 6 structure.





**UNSW**  
SYDNEY