



COLLEGE OF HEALTH SCIENCES

CURRICULUM FRAMEWORK

GENERAL SURGERY RESIDENCY PROGRAM

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1. GRADUATE ATTRIBUTES

The General Surgery Residency Program at VinUniversity – College of Health Sciences (CHS) complies with the regulations and requirements of the Vietnamese government. Specifically, the program design is guided by the Ministry of Health (MOH) Framework (Endorsed in 2006 by MOH, Decision: 19/2006/QĐ-BYT). Moreover, the training program is designed to international standards so that residents who complete the training at CHS are able to deliver high quality services nationally and internationally. The concept -- graded and progressive responsibility which is embedded in any residency training program in the United States (US) -- is a core tenet of residency training at CHS. Supervision in the setting of graduate medical education has the goals of assuring the provision of safe and effective care to patients during training; developing each resident's skills, knowledge and attitudes to create independent practitioners, and establishing a foundation for continued individual professional growth. The training program has been evaluated against international professional standards for residents outside of the US (ACGME-I), so that residents are equivalent to those accepted by the international health care sector. The training programs at CHS are dedicated to residents' learning and the achievement of competencies by:

- Being a competency-, pedagogy- and evidence-based program¹;
- Training residents to be not only an expert in their field, but also an effective member of interprofessional teams that are responsive to the needs of patients, their families and communities, and the overall health system;
- Providing broad based inpatient and outpatient experience in the surgical sciences, multidisciplinary team-based care, wellness training, and quality improvement skills²;
- Applying longitudinal training/continuity experiences across the program;
- Assessing not only clinical knowledge and technical skills but also attitudes and values

The training program prioritizes values, aims, and principles of health care services in Vietnam, international competencies for learning and life, and a focus on community, local, national and global health needs.

The core principles for resident competency provided by VinUni and the core principles from the disciplines of medicine and nursing, showed a significant degree of overlap between the two fields. Moreover, the area of overlap provides a solid foundation for interprofessional education and team-based care. While the disciplinary knowledge and scope of practice for doctors and nurses may be different, each discipline seeks to provide high-quality, evidence-based, professional, compassionate, and ethical care, and to collaborate effectively in teams in the provision of that care. The principles describe professional practice, and both medicine and nursing are professional practitioners within their disciplines.

¹ Deborah J. DeWaay et al, Am J Med Sci 2016, Redesigning Medical Education in Internal Medicine: Adapting to the Changing Landscape of 21st Century Medical Practice

² Thomas S. Huddle et al, Acad Med. 2008, Internal Medicine Training in the 21st Century

1.1 VinUni Generic Graduate Attributes

Generic graduate attributes are a set of skills, attributes, and values that all learners should achieve regardless of discipline or field of study; should be measurable and broad. The five Generic Graduate Attributes for VinUni, framed around the EXCEL Model, are listed as below:

- **EMPATHY:** Sense other people's emotions, understand others without judgement.
- **EXCEPTIONAL CAPABILITIES:** Exceptional capabilities and competencies that are proven determinants of future success.
- **CREATIVITY:** Perceive the world in new ways, make connections, generate solutions.
- **ENTREPRENEURIAL MINDSET:** Overcome challenges, be decisive, accept responsibility, be impactful for the society.
- **LEADERSHIP SPIRIT:** Motivate and influence people to act toward achieving a common goal.

2. PROGRAM OVERVIEW

2.1 Program Description

Name of the program degree	General Surgery Residency Program
Program duration	6 years
Total credits	373 credits

2.2 Program Mission

The program aims to train residents to become doctors, who:

- *Practice comprehensive general surgery*, emphasizing excellence in clinical knowledge and judgment, technical skills, and evidence-based, high-value, compassionate, culturally-competent care
- Acquire training and preparation to be *competitive for subspecialty training*
- Conduct clinical, patient safety, or quality improvement research
- *Educate* patients and colleagues effectively
- *Work collaboratively* and with collegiality in an interdisciplinary team, including competent team leadership

3. CURRICULUM STRUCTURE

3.1 Curriculum Composition

The General Surgery Residency Program is to be completed within six years on a full-time basis. The curriculum consists of 373 credits.

MOH (2006) requires a minimum of 150 educational credits for all residency training programs, regardless of the specialty. CHS General Surgery Residency Program fulfills this requirement in the following way:

No	Area of Study	Number of Credits	Credit Distribution
1	Compulsory Courses by MOH	17	4.56%
2	Supporting Courses	21	5.63%
3	Core Clinical Rotations	325	87.13%
4	Graduation Thesis	10	2.68%
Total		373	100%

3.2 Courses and Credit Distribution by Courses

Compulsory Courses by MOH

17 credits (17 theory, 0 practice)

No	Subjects/ Education Units	Course code	Level	Credits	Distribution	
					Theory	Practice
1	Marxism-Leninism Philosophy (Philosophy Science and Society)	HASS1010	PGY1	3	3	0
2	Medical English	ENGL6011	PGY1 PGY2	10	10	0
3	Medical Pedagogy	PEDA6011	PGY1 PGY2	2	2	0
4	Research Methods and Evidence-Based Medicine	CCSC6142	PGY1	2	2	0

Supporting Courses

21 credits (11 theory, 10 practice)

No	Subjects/Education Units	Course code	Level	Credits	Distribution	
					Theory	Practice
5	Medical Knowledge	CCSC6110	PGY1	9	8	1
6	Practice of Medicine	CCSC6120	PGY1	7	3	4
7	Simulation Training and Clinical Procedural Skills	CCSC6130	PGY1	5	0	5

Core Clinical Rotations

325 credits (65 theory, 260 practice)

No	Subjects/Rotation Blocks	Course code	Level	Weeks	Credits	Distribution		Site
						Theory	Practice	
8	Radiology	SURR6060	PGY1	2	2.5	0.5	2	VMTC
9	Intensive Care Unit 1	SURR6021	PGY1	2	2.5	0.5	2	VMTC
10	Anesthesia	SURR6100	PGY1	3	3.75	0.75	3	VMTC
11	Surgery 1	SURR6011	PGY1	7	8.75	1.75	7	VMTC
12	Hepatobiliary and Transplant Surgery 1	SURR6181	PGY1	4	5	1	4	M108
13	Surgical Intensive Care Unit 1	SURR6111	PGY1	4	5	1	4	M108
14	Surgical Emergency Department 1	SURR6031	PGY1	2	2.5	0.5	2	VMTC
15	Surgery 2	SURR6012	PGY2	8	10	2	8	VMTC
16	Gastrointestinal Surgery 2	SURR6142	PGY2	8	10	2	8	M108
17	Hepatobiliary and Transplant Surgery 2	SURR6182	PGY2	8	10	2	8	M108
18	Trauma and Orthopedic Surgery 2	SURR6132	PGY2	8	10	2	8	M108
19	Colorectal Surgery 2	SURR6122	PGY2	8	10	2	8	M108
20	Surgical Intensive Care Unit 2	SURR6112	PGY2	4	5	1	4	M108
21	Surgical Emergency Department 2	SURR6032	PGY2	4	5	1	4	M108
22	Surgical Intensive Care Unit 3	SURR6113	PGY3	8	10	2	8	M108
23	Vascular Surgery 3	SURR6163	PGY3	8	10	2	8	M108
24	Breast Surgery	SURR6050	PGY3	8	10	2	8	VMTC
25	Gastrointestinal Surgery 3	SURR6143	PGY3	4	5	1	4	M108
26	Colorectal Surgery 3	SURR6123	PGY3	4	5	1	4	M108
27	Hepatobiliary and Transplant Surgery 3	SURR6183	PGY3	4	5	1	4	M108
28	Thoracic Surgery 3	SURR6153	PGY3	8	10	2	8	M108
29	Surgery 3	SURR6013	PGY3	4	5	1	4	VMTC
30	Surgery 4	SURR6014	PGY4	8	10	2	8	VMTC
31	Hepatobiliary and Transplant Surgery 4	SURR6184	PGY4	8	10	2	8	M108
32	Gastrointestinal Surgery 4	SURR6144	PGY4	8	10	2	8	M108
33	Colorectal Surgery 4	SURR6124	PGY4	8	10	2	8	M108

34	Pediatric Surgery	SURR6170	PGY4	8	10	2	8	NCH
35	Endoscopy	SURR6081	PGY4	4	5	1	4	VMTC
36	Head & Neck Surgery	SURR6172	PGY4	4	5	1	4	M108
37	Thoracic Surgery 5	SURR6155	PGY5	8	10	2	8	BM
38	Vascular Surgery 5	SURR6165	PGY5	8	10	2	8	BM
39	Trauma Surgery 5	SURR6135	PGY5	8	10	2	8	BM
40	Surgical Electives 5	SURR6200	PGY5	20	25	5	20	No fixed location
41	Surgery 6	SURR6016	PGY6	12	15	3	12	VMTC
42	Surgical Electives 6	SURR6201	PGY6	36	45	9	36	No fixed location

Site Abbreviations:

- VMTC: Vinmec Times City International Hospital
- M108: Military 108 Central Hospital
- NCH: National Children's Hospital
- BM: Bach Mai Hospital

Graduation Thesis

10 credits (0 theory, 10 practice)

No	Subjects/Education Units	Course code	Level	Total credits	Distribution	
					Theory	Practice
43	Thesis	SURR6890	PGY5	10	0	10

3.3 Curriculum Planner

Please see the Curriculum Planner below or full Excel file for details.

In general:

- There will be 4 residents per class.
- Each resident has 4 weeks of vacation per year.

During the second half of the first program year (Residency year 1) and **the whole second program year** (Residency year 2):

- All rotations will be at Military 108 and Vinmec Hospitals.

At the end of third program year (Residency year 3):

- Residents will begin to be layered on top of first year residents on some rotations. This is to provide direct supervision of intern activities with respect to patient care as well as provide opportunities for these residents to begin to have clinical and teaching responsibilities.
- Residents will be expected to be able to perform the following procedures unsupervised: Central venous and arterial catheter placement, tube thoracostomy, endotracheal intubation, EGD, and cricothyroidotomy, appendectomy.

In the fourth program year (Residency year 4):

- In addition to rotations in Military 108 and Vinmec Hospitals, residents will spend 8 weeks at National Children's Hospital to complete the Pediatric Surgery requirements.
- Residents will begin to function as senior level residents and will have the opportunity to lead the surgical service at VMTC.

During the fifth and sixth program years (Residency years 5 and 6):

- Residents will be the acting chiefs of their services. As such they will function with a high level of autonomy and will be in charge of the daily activities of their services. They will also be responsible for educating junior residents and medical students.
- A total of 56 weeks (20 in PGY5 and 36 in PGY6) of elective time will be allowed. Electives must take place at the teaching hospitals. This is done to allow residents to get further training within specific areas of their interests within the broad field of surgery. Therefore, all electives must be personally approved by the program director.
- Residents will be exposed to a new teaching environment – Bach Mai Hospital.

Outpatient Clinic

- Each resident will be responsible for participating in patient care in the outpatient clinic associated with their specific rotation for at least one half day per week. This only applies to appropriate rotations (i.e. no outpatient clinic responsibility during ICU or ED rotations).

Conferences

- Residents will be required to attend both a weekly didactic session focusing on the core principles of surgery and a weekly case conference. These conferences will be held at a central location. All residents are mandated to attend and thus cannot be given clinical responsibilities during this time.

Thesis

- PGY5 residents have 4-week rotations to meet the thesis requirements. They will use this time to research and write their thesis.

3.3.1 High level Curriculum Planner

	PGY1 (Junior Resident)	PGY2 (Junior Resident)	PGY3 (Senior Resident)	PGY4 (Senior Resident)	PGY5 (Senior Resident)	PGY6 (Chief Resident)	
ENTRANCE: 1) Toefl 2) Academic Performance 3) Personal statement 4) References	Pre-Residency Program	To be aware of the competency areas Working under direct supervision of faculty	Manage the competencies well Working under indirect supervision of faculty	Independently meet the competencies Working under indirect or remote supervision of faculty	Independently meet the competencies Working under indirect or remote supervision of faculty	Independently meet the competencies Working under remote supervision of faculty	1. Achieve competency standards for residents (ACGME – I) 2. Alternative certification equivalent exam
SPECIAL SELECTION TOOLS: 1) Structured interviews (standardized patients, simulation)	Radiology (VMTC) (2w) ICU 1 (VMTC) (2w) Anesthesia (VMTC) (3w) Surgical ED 1 (VMTC) (2w) Surgery 1 (VMTC) (7w) Surgical ICU 1 (M108) (4w) HPB & Transplant Surgery 1 (M108) (4w)	Surgery 2 (VMTC) (8w) HPB & Transplant Surgery 2 (M108) (8w) Surgical ICU 2 (M108) (4w) Surgical ED 2 (M108) (4w) GI Surgery 2 (M108) (8w) Trauma & Ortho Surgery 2 (M108) (8w) CRS 2 (M108) (8w)	Surgery 3 (VMTC) (4w) HPB & Transplant Surgery 3 (M108) (4w) Surgical ICU 3 (M108) (8w) GI Surgery 3 (M108) (4w) CRS 3 (M108) (4w) Thoracic Surgery 3 (M108) (8w) Vascular Surgery 3 (M108) (8w) Breast Surgery (M108) (8w)	Surgery 4 (VMTC) (8w) HPB & Transplant Surgery 4 (M108) (8w) GI Surgery 4 (M108) (8w) CRS 4 (M108) (8w) Peds Surgery (NCH) (8w) Endoscopy (VMTC) (4w) Head & Neck Surgery (M108) (4w)	Thoracic Surgery 5 (M108) (8w) Vascular Surgery 5(BM) (8w) Trauma Surgery (BM) (8w) Surgical Electives 5 (Various locations) (20w)	Surgery 6 (VMTC) (12w) Surgical Electives 6 (Various locations) (36w)	
	Core Clinical Skills Development	Basic skills (ACGME-I requirement: stress/burn-out management, self-management skills, life-work balance, etc.) MOH requirement (Medical Ethics, IT skills, Philosophy)					
	Research & EBM	Medical Pedagogy / Clinical teaching – Clinical mentorship skills					
	Intensive Medical English	Ongoing Medical English					
					Thesis		

3.3.2. Curriculum Year Planner

3.3.2.1 Year Planner for PGY 1

Rotation Schedule for General Surgery PGY1					
Week	Monday	Resident A	Resident B	Resident C	Resident D
1	3-Oct-22				
2	10-Oct-22				
3	17-Oct-22				
4	24-Oct-22				
5	31-Oct-22				
6	7-Nov-22	CCS 1	CCS 1	CCS 1	CCS 1
7	14-Nov-22	CCS 2	CCS 2	CCS 2	CCS 2
8	21-Nov-22	CCS 3	CCS 3	CCS 3	CCS 3
9	28-Nov-22	CCS 4	CCS 4	CCS 4	CCS 4
10	5-Dec-22	CCS 5	CCS 5	CCS 5	CCS 5
11	12-Dec-22	CCS 6	CCS 6	CCS 6	CCS 6
12	19-Dec-22	CCS 7	CCS 7	CCS 7	CCS 7
13	26-Dec-22	CCS 8	CCS 8	CCS 8	CCS 8
14	2-Jan-23	CCS 9	CCS 9	CCS 9	CCS 9
15	9-Jan-23	CCS 10	CCS 10	CCS 10	CCS 10
16	16-Jan-23	Vacation	Vacation	Vacation	Vacation
17	23-Jan-23	Vacation	Vacation	Vacation	Vacation
18	30-Jan-23	CCS 11	CCS 11	CCS 11	CCS 11
19	6-Feb-23	CCS 12	CCS 12	CCS 12	CCS 12
20	13-Feb-23	CCS 13	CCS 13	CCS 13	CCS 13
21	20-Feb-23	CCS 14	CCS 14	CCS 14	CCS 14
22	27-Feb-23	CCS 15	CCS 15	CCS 15	CCS 15
23	6-Mar-23	CCS 16	CCS 16	CCS 16	CCS 16
24	13-Mar-23	CCS 17	CCS 17	CCS 17	CCS 17
25	20-Mar-23	CCS 18	CCS 18	CCS 18	CCS 18
26	27-Mar-23	CCS 19	CCS 19	CCS 19	CCS 19
27	3-Apr-23	Radiology (VMTC)	Surgery 1 (VMTC Ortho)	Surgical Intensive Care Unit 1 (M108)	Surgical Emergency Department 1 (VMTC ED)
28	10-Apr-23	Radiology (VMTC)	Surgery 1 (VMTC Ortho)	Surgical Intensive Care Unit 1 (M108)	Surgical Emergency Department 1 (VMTC ED)
29	17-Apr-23	Intensive Care Unit 1 (VMTC)	Surgery 1 (VMTC Ortho)	Surgical Intensive Care Unit 1 (M108)	Radiology (VMTC)
30	24-Apr-23	Intensive Care Unit 1 (VMTC)	Vacation	Surgical Intensive Care Unit 1 (M108)	Radiology (VMTC)
31	1-May-23	Surgical Emergency Department 1 (VMTC ED)	Intensive Care Unit 1 (VMTC)	Vacation	Surgery 1 (VMTC Ortho)
32	8-May-23	Surgical Emergency Department 1 (VMTC ED)	Intensive Care Unit 1 (VMTC)	Anesthesia (VMTC)	Surgery 1 (VMTC Ortho)
33	15-May-23	Vacation	Surgical Emergency Department 1 (VMTC ED)	Anesthesia (VMTC)	Surgery 1 (VMTC Ortho)
34	22-May-23	Anesthesia (VMTC)	Surgical Emergency Department 1 (VMTC ED)	Anesthesia (VMTC)	Vacation
35	29-May-23	Anesthesia (VMTC)	Radiology (VMTC)	Surgical Emergency Department 1 (VMTC ED)	Intensive Care Unit 1 (VMTC)

36	5-Jun-23	Anesthesia (VMTC)	Radiology (VMTC)	Surgical Emergency Department 1 (VMTC ED)	Intensive Care Unit 1 (VMTC)
37	12-Jun-23	Surgery 1 (VMTC General Surgery)	Anesthesia (VMTC)	Intensive Care Unit 1 (VMTC)	Hepatobiliary and Transplant Surgery 1 (M108)
38	19-Jun-23	Surgery 1 (VMTC General Surgery)	Anesthesia (VMTC)	Intensive Care Unit 1 (VMTC)	Hepatobiliary and Transplant Surgery 1 (M108)
39	26-Jun-23	Surgery 1 (VMTC General Surgery)	Anesthesia (VMTC)	Vacation	Hepatobiliary and Transplant Surgery 1 (M108)
40	3-Jul-23	Surgery 1 (VMTC General Surgery)	Vacation	Surgery 1 (VMTC Ortho)	Hepatobiliary and Transplant Surgery 1 (M108)
41	10-Jul-23	Hepatobiliary and Transplant Surgery 1 (M108)	Surgery 1 (VMTC General Surgery)	Surgery 1 (VMTC Ortho)	Surgical Intensive Care Unit 1 (M108)
42	17-Jul-23	Hepatobiliary and Transplant Surgery 1 (M108)	Surgery 1 (VMTC General Surgery)	Surgery 1 (VMTC Ortho)	Surgical Intensive Care Unit 1 (M108)
43	24-Jul-23	Hepatobiliary and Transplant Surgery 1 (M108)	Surgery 1 (VMTC General Surgery)	Radiology (VMTC)	Surgical Intensive Care Unit 1 (M108)
44	31-Jul-23	Hepatobiliary and Transplant Surgery 1 (M108)	Surgery 1 (VMTC General Surgery)	Radiology (VMTC)	Surgical Intensive Care Unit 1 (M108)
45	7-Aug-23	Surgical Intensive Care Unit 1 (M108)	Hepatobiliary and Transplant Surgery 1 (M108)	Surgery 1 (VMTC General Surgery)	Vacation
46	14-Aug-23	Surgical Intensive Care Unit 1 (M108)	Hepatobiliary and Transplant Surgery 1 (M108)	Surgery 1 (VMTC General Surgery)	Anesthesia (VMTC)
47	21-Aug-23	Surgical Intensive Care Unit 1 (M108)	Hepatobiliary and Transplant Surgery 1 (M108)	Surgery 1 (VMTC General Surgery)	Anesthesia (VMTC)
48	28-Aug-23	Surgical Intensive Care Unit 1 (M108)	Hepatobiliary and Transplant Surgery 1 (M108)	Surgery 1 (VMTC General Surgery)	Anesthesia (VMTC)
49	4-Sep-23	Vacation	Surgical Intensive Care Unit 1 (M108)	Hepatobiliary and Transplant Surgery 1 (M108)	Surgery 1 (VMTC General Surgery)
50	11-Sep-23	Surgery 1 (VMTC Ortho)	Surgical Intensive Care Unit 1 (M108)	Hepatobiliary and Transplant Surgery 1 (M108)	Surgery 1 (VMTC General Surgery)
51	18-Sep-23	Surgery 1 (VMTC Ortho)	Surgical Intensive Care Unit 1 (M108)	Hepatobiliary and Transplant Surgery 1 (M108)	Surgery 1 (VMTC General Surgery)
52	25-Sep-23	Surgery 1 (VMTC Ortho)	Surgical Intensive Care Unit 1 (M108)	Hepatobiliary and Transplant Surgery 1 (M108)	Surgery 1 (VMTC General Surgery)

3.3.2.2 Year Planner for PGY2

Rotation Schedule for General Surgery PGY2					
Week	Monday	Resident A	Resident B	Resident C	Resident D

1	3-Oct-22	Surgery 2 (VMTC General Surgery)	Hepatobiliary and Transplant Surgery 2 (M108)	Gastrointestinal Surgery 2	Colorectal Surgery 2 (M108)
2	10-Oct-22	Surgery 2 (VMTC General Surgery)	Hepatobiliary and Transplant Surgery 2 (M108)	Gastrointestinal Surgery 2	Colorectal Surgery 2 (M108)
3	17-Oct-22	Surgery 2 (VMTC General Surgery)	Hepatobiliary and Transplant Surgery 2 (M108)	Gastrointestinal Surgery 2	Colorectal Surgery 2 (M108)
4	24-Oct-22	Surgery 2 (VMTC General Surgery)	Hepatobiliary and Transplant Surgery 2 (M108)	Gastrointestinal Surgery 2	Colorectal Surgery 2 (M108)
5	31-Oct-22	Surgery 2 (VMTC General Surgery)	Hepatobiliary and Transplant Surgery 2 (M108)	Gastrointestinal Surgery 2	Colorectal Surgery 2 (M108)
6	7-Nov-22	Surgery 2 (VMTC General Surgery)	Hepatobiliary and Transplant Surgery 2 (M108)	Gastrointestinal Surgery 2	Colorectal Surgery 2 (M108)
7	14-Nov-22	Surgery 2 (VMTC General Surgery)	Hepatobiliary and Transplant Surgery 2 (M108)	Gastrointestinal Surgery 2	Colorectal Surgery 2 (M108)
8	21-Nov-22	Surgery 2 (VMTC General Surgery)	Hepatobiliary and Transplant Surgery 2 (M108)	Gastrointestinal Surgery 2	Colorectal Surgery 2 (M108)
9	28-Nov-22	Gastrointestinal Surgery 2	Surgery 2 (VMTC General Surgery)	Colorectal Surgery 2 (M108)	Hepatobiliary and Transplant Surgery 2 (M108)
10	5-Dec-22	Gastrointestinal Surgery 2	Surgery 2 (VMTC General Surgery)	Colorectal Surgery 2 (M108)	Hepatobiliary and Transplant Surgery 2 (M108)
11	12-Dec-22	Gastrointestinal Surgery 2	Surgery 2 (VMTC General Surgery)	Colorectal Surgery 2 (M108)	Hepatobiliary and Transplant Surgery 2 (M108)
12	19-Dec-22	Gastrointestinal Surgery 2	Surgery 2 (VMTC General Surgery)	Colorectal Surgery 2 (M108)	Hepatobiliary and Transplant Surgery 2 (M108)
13	26-Dec-22	Gastrointestinal Surgery 2	Surgery 2 (VMTC General Surgery)	Colorectal Surgery 2 (M108)	Hepatobiliary and Transplant Surgery 2 (M108)
14	2-Jan-23	Gastrointestinal Surgery 2	Surgery 2 (VMTC General Surgery)	Colorectal Surgery 2 (M108)	Hepatobiliary and Transplant Surgery 2 (M108)
15	9-Jan-23	Gastrointestinal Surgery 2	Surgery 2 (VMTC General Surgery)	Colorectal Surgery 2 (M108)	Hepatobiliary and Transplant Surgery 2 (M108)
16	16-Jan-23	Gastrointestinal Surgery 2	Surgery 2 (VMTC General Surgery)	Colorectal Surgery 2 (M108)	Hepatobiliary and Transplant Surgery 2 (M108)
17	23-Jan-23	Vacation	Vacation	Vacation	Vacation
18	30-Jan-23	Hepatobiliary and Transplant Surgery 2 (M108)	Gastrointestinal Surgery 2	Surgery 2 (VMTC General Surgery)	Trauma and Orthopedic Surgery 2 (M108 Ortho)
19	6-Feb-23	Hepatobiliary and Transplant Surgery 2 (M108)	Gastrointestinal Surgery 2	Surgery 2 (VMTC General Surgery)	Trauma and Orthopedic Surgery 2 (M108 Ortho)
20	13-Feb-23	Hepatobiliary and Transplant Surgery 2 (M108)	Gastrointestinal Surgery 2	Surgery 2 (VMTC General Surgery)	Trauma and Orthopedic Surgery 2 (M108 Ortho)

21	20-Feb-23	Hepatobiliary and Transplant Surgery 2 (M108)	Gastrointestinal Surgery 2	Surgery 2 (VMTC General Surgery)	Trauma and Orthopedic Surgery 2 (M108 Ortho)
22	27-Feb-23	Hepatobiliary and Transplant Surgery 2 (M108)	Gastrointestinal Surgery 2	Surgery 2 (VMTC General Surgery)	Trauma and Orthopedic Surgery 2 (M108 Neuro)
23	6-Mar-23	Hepatobiliary and Transplant Surgery 2 (M108)	Gastrointestinal Surgery 2	Surgery 2 (VMTC General Surgery)	Trauma and Orthopedic Surgery 2 (M108 Neuro)
24	13-Mar-23	Hepatobiliary and Transplant Surgery 2 (M108)	Gastrointestinal Surgery 2	Surgery 2 (VMTC General Surgery)	Trauma and Orthopedic Surgery 2 (M108 Neuro)
25	20-Mar-23	Hepatobiliary and Transplant Surgery 2 (M108)	Gastrointestinal Surgery 2	Surgery 2 (VMTC General Surgery)	Trauma and Orthopedic Surgery 2 (M108 Neuro)
26	27-Mar-23	Vacation	Vacation	Hepatobiliary and Transplant Surgery 2 (M108)	Surgery 2 (VMTC General Surgery)
27	3-Apr-23	Trauma and Orthopedic Surgery 2 (M108 Ortho)	Surgical Emergency Department 2 (M108)	Hepatobiliary and Transplant Surgery 2 (M108)	Surgery 2 (VMTC General Surgery)
28	10-Apr-23	Trauma and Orthopedic Surgery 2 (M108 Ortho)	Surgical Emergency Department 2 (M108)	Hepatobiliary and Transplant Surgery 2 (M108)	Surgery 2 (VMTC General Surgery)
29	17-Apr-23	Trauma and Orthopedic Surgery 2 (M108 Ortho)	Surgical Emergency Department 2 (M108)	Hepatobiliary and Transplant Surgery 2 (M108)	Surgery 2 (VMTC General Surgery)
30	24-Apr-23	Trauma and Orthopedic Surgery 2 (M108 Ortho)	Surgical Emergency Department 2 (M108)	Hepatobiliary and Transplant Surgery 2 (M108)	Surgery 2 (VMTC General Surgery)
31	1-May-23	Trauma and Orthopedic Surgery 2 (M108 Neuro)	Surgical Intensive Care Unit 2 (M108)	Hepatobiliary and Transplant Surgery 2 (M108)	Surgery 2 (VMTC General Surgery)
32	8-May-23	Trauma and Orthopedic Surgery 2 (M108 Neuro)	Surgical Intensive Care Unit 2 (M108)	Hepatobiliary and Transplant Surgery 2 (M108)	Surgery 2 (VMTC General Surgery)
33	15-May-23	Trauma and Orthopedic Surgery 2 (M108 Neuro)	Surgical Intensive Care Unit 2 (M108)	Hepatobiliary and Transplant Surgery 2 (M108)	Surgery 2 (VMTC General Surgery)
34	22-May-23	Trauma and Orthopedic Surgery 2 (M108 Neuro)	Surgical Intensive Care Unit 2 (M108)	Vacation	Vacation
35	29-May-23	Vacation	Trauma and Orthopedic Surgery 2 (M108 Ortho)	Surgical Intensive Care Unit 2 (M108)	Surgical Emergency Department 2 (M108)
36	5-Jun-23	Colorectal Surgery 2 (M108)	Trauma and Orthopedic Surgery 2 (M108 Ortho)	Surgical Intensive Care Unit 2 (M108)	Surgical Emergency Department 2 (M108)
37	12-Jun-23	Colorectal Surgery 2 (M108)	Trauma and Orthopedic Surgery 2 (M108 Ortho)	Surgical Intensive Care Unit 2 (M108)	Surgical Emergency Department 2 (M108)
38	19-Jun-23	Colorectal Surgery 2 (M108)	Trauma and Orthopedic Surgery 2 (M108 Ortho)	Surgical Intensive Care Unit 2 (M108)	Surgical Emergency Department 2 (M108)
39	26-Jun-23	Colorectal Surgery 2 (M108)	Trauma and Orthopedic Surgery 2 (M108 Neuro)	Surgical Emergency Department 2 (M108)	Surgical Intensive Care Unit 2 (M108)

40	3-Jul-23	Colorectal Surgery 2 (M108)	Trauma and Orthopedic Surgery 2 (M108 Neuro)	Surgical Emergency Department 2 (M108)	Surgical Intensive Care Unit 2 (M108)
41	10-Jul-23	Colorectal Surgery 2 (M108)	Trauma and Orthopedic Surgery 2 (M108 Neuro)	Surgical Emergency Department 2 (M108)	Surgical Intensive Care Unit 2 (M108)
42	17-Jul-23	Colorectal Surgery 2 (M108)	Trauma and Orthopedic Surgery 2 (M108 Neuro)	Surgical Emergency Department 2 (M108)	Surgical Intensive Care Unit 2 (M108)
43	24-Jul-23	Colorectal Surgery 2 (M108)	Vacation	Vacation	Vacation
44	31-Jul-23	Surgical Intensive Care Unit 2 (M108)	Colorectal Surgery 2 (M108)	Trauma and Orthopedic Surgery 2 (M108 Ortho)	Gastrointestinal Surgery 2
45	7-Aug-23	Surgical Intensive Care Unit 2 (M108)	Colorectal Surgery 2 (M108)	Trauma and Orthopedic Surgery 2 (M108 Ortho)	Gastrointestinal Surgery 2
46	14-Aug-23	Surgical Intensive Care Unit 2 (M108)	Colorectal Surgery 2 (M108)	Trauma and Orthopedic Surgery 2 (M108 Ortho)	Gastrointestinal Surgery 2
47	21-Aug-23	Surgical Intensive Care Unit 2 (M108)	Colorectal Surgery 2 (M108)	Trauma and Orthopedic Surgery 2 (M108 Ortho)	Gastrointestinal Surgery 2
48	28-Aug-23	Vacation	Colorectal Surgery 2 (M108)	Trauma and Orthopedic Surgery 2 (M108 Neuro)	Gastrointestinal Surgery 2
49	4-Sep-23	Surgical Emergency Department 2 (M108)	Colorectal Surgery 2 (M108)	Trauma and Orthopedic Surgery 2 (M108 Neuro)	Gastrointestinal Surgery 2
50	11-Sep-23	Surgical Emergency Department 2 (M108)	Colorectal Surgery 2 (M108)	Trauma and Orthopedic Surgery 2 (M108 Neuro)	Gastrointestinal Surgery 2
51	18-Sep-23	Surgical Emergency Department 2 (M108)	Colorectal Surgery 2 (M108)	Trauma and Orthopedic Surgery 2 (M108 Neuro)	Gastrointestinal Surgery 2
52	25-Sep-23	Surgical Emergency Department 2 (M108)	Vacation	Vacation	Vacation

3.3.2.3 Year Planner for PGY3

Rotation Schedule for General Surgery PGY3					
Week	Monday	Resident A	Resident B	Resident C	Resident D
1	3-Oct-22	Surgical Intensive Care Unit 3 (M108)	Vascular Surgery 3 (M108)	Breast Surgery (M108)	Thoracic Surgery 3 (M108)
2	10-Oct-22	Surgical Intensive Care Unit 3 (M108)	Vascular Surgery 3 (M108)	Breast Surgery (M108)	Thoracic Surgery 3 (M108)
3	17-Oct-22	Surgical Intensive Care Unit 3 (M108)	Vascular Surgery 3 (M108)	Breast Surgery (M108)	Thoracic Surgery 3 (M108)
4	24-Oct-22	Surgical Intensive Care Unit 3 (M108)	Vascular Surgery 3 (M108)	Breast Surgery (M108)	Thoracic Surgery 3 (M108)
5	31-Oct-22	Surgical Intensive Care Unit 3 (M108)	Vascular Surgery 3 (M108)	Breast Surgery (M108)	Thoracic Surgery 3 (M108)
6	7-Nov-22	Surgical Intensive Care Unit 3 (M108)	Vascular Surgery 3 (M108)	Breast Surgery (M108)	Thoracic Surgery 3 (M108)
7	14-Nov-22	Surgical Intensive Care Unit 3 (M108)	Vascular Surgery 3 (M108)	Breast Surgery (M108)	Thoracic Surgery 3 (M108)

8	21-Nov-22	Surgical Intensive Care Unit 3 (M108)	Vascular Surgery 3 (M108)	Breast Surgery (M108)	Thoracic Surgery 3 (M108)
9	28-Nov-22	Vascular Surgery 3 (M108)	Thoracic Surgery 3 (M108)	Surgical Intensive Care Unit 3 (M108)	Breast Surgery (M108)
10	5-Dec-22	Vascular Surgery 3 (M108)	Thoracic Surgery 3 (M108)	Surgical Intensive Care Unit 3 (M108)	Breast Surgery (M108)
11	12-Dec-22	Vascular Surgery 3 (M108)	Thoracic Surgery 3 (M108)	Surgical Intensive Care Unit 3 (M108)	Breast Surgery (M108)
12	19-Dec-22	Vascular Surgery 3 (M108)	Thoracic Surgery 3 (M108)	Surgical Intensive Care Unit 3 (M108)	Breast Surgery (M108)
13	26-Dec-22	Vascular Surgery 3 (M108)	Thoracic Surgery 3 (M108)	Surgical Intensive Care Unit 3 (M108)	Breast Surgery (M108)
14	2-Jan-23	Vascular Surgery 3 (M108)	Thoracic Surgery 3 (M108)	Surgical Intensive Care Unit 3 (M108)	Breast Surgery (M108)
15	9-Jan-23	Vascular Surgery 3 (M108)	Thoracic Surgery 3 (M108)	Surgical Intensive Care Unit 3 (M108)	Breast Surgery (M108)
16	16-Jan-23	Vascular Surgery 3 (M108)	Thoracic Surgery 3 (M108)	Surgical Intensive Care Unit 3 (M108)	Breast Surgery (M108)
17	23-Jan-23	Vacation	Vacation	Vacation	Vacation
18	30-Jan-23	Breast Surgery (M108)	Colorectal Surgery 3 (M108)	Vascular Surgery 3 (M108)	Surgical Intensive Care Unit 3 (M108)
19	6-Feb-23	Breast Surgery (M108)	Colorectal Surgery 3 (M108)	Vascular Surgery 3 (M108)	Surgical Intensive Care Unit 3 (M108)
20	13-Feb-23	Breast Surgery (M108)	Colorectal Surgery 3 (M108)	Vascular Surgery 3 (M108)	Surgical Intensive Care Unit 3 (M108)
21	20-Feb-23	Breast Surgery (M108)	Colorectal Surgery 3 (M108)	Vascular Surgery 3 (M108)	Surgical Intensive Care Unit 3 (M108)
22	27-Feb-23	Breast Surgery (M108)	Surgical Intensive Care Unit 3 (M108)	Vascular Surgery 3 (M108)	Colorectal Surgery 3 (M108)
23	6-Mar-23	Breast Surgery (M108)	Surgical Intensive Care Unit 3 (M108)	Vascular Surgery 3 (M108)	Colorectal Surgery 3 (M108)
24	13-Mar-23	Breast Surgery (M108)	Surgical Intensive Care Unit 3 (M108)	Vascular Surgery 3 (M108)	Colorectal Surgery 3 (M108)
25	20-Mar-23	Breast Surgery (M108)	Surgical Intensive Care Unit 3 (M108)	Vascular Surgery 3 (M108)	Colorectal Surgery 3 (M108)
26	27-Mar-23	Vacation	Surgical Intensive Care Unit 3 (M108)	Colorectal Surgery 3 (M108)	Vascular Surgery 3 (M108)
27	3-Apr-23	Gastrointestinal Surgery 3 (M108)	Surgical Intensive Care Unit 3 (M108)	Colorectal Surgery 3 (M108)	Vascular Surgery 3 (M108)
28	10-Apr-23	Gastrointestinal Surgery 3 (M108)	Surgical Intensive Care Unit 3 (M108)	Colorectal Surgery 3 (M108)	Vascular Surgery 3 (M108)
29	17-Apr-23	Gastrointestinal Surgery 3 (M108)	Surgical Intensive Care Unit 3 (M108)	Colorectal Surgery 3 (M108)	Vascular Surgery 3 (M108)
30	24-Apr-23	Gastrointestinal Surgery 3 (M108)	Vacation	Vacation	Vascular Surgery 3 (M108)
31	1-May-23	Colorectal Surgery 3 (M108)	Gastrointestinal Surgery 3 (M108)	Thoracic Surgery 3 (M108)	Vascular Surgery 3 (M108)
32	8-May-23	Colorectal Surgery 3 (M108)	Gastrointestinal Surgery 3 (M108)	Thoracic Surgery 3 (M108)	Vascular Surgery 3 (M108)
33	15-May-23	Colorectal Surgery 3 (M108)	Gastrointestinal Surgery 3 (M108)	Thoracic Surgery 3 (M108)	Vascular Surgery 3 (M108)
34	22-May-23	Colorectal Surgery 3 (M108)	Gastrointestinal Surgery 3 (M108)	Thoracic Surgery 3 (M108)	Vacation
35	29-May-23	Hepatobiliary and Transplant Surgery 3 (M108)	Surgery 3 (VMTC General Surgery)	Thoracic Surgery 3 (M108)	Gastrointestinal Surgery 3 (M108)

36	5-Jun-23	Hepatobiliary and Transplant Surgery 3 (M108)	Surgery 3 (VMTC General Surgery)	Thoracic Surgery 3 (M108)	Gastrointestinal Surgery 3 (M108)
37	12-Jun-23	Hepatobiliary and Transplant Surgery 3 (M108)	Surgery 3 (VMTC General Surgery)	Thoracic Surgery 3 (M108)	Gastrointestinal Surgery 3 (M108)
38	19-Jun-23	Hepatobiliary and Transplant Surgery 3 (M108)	Surgery 3 (VMTC General Surgery)	Thoracic Surgery 3 (M108)	Gastrointestinal Surgery 3 (M108)
39	26-Jun-23	Vacation	Hepatobiliary and Transplant Surgery 3 (M108)	Vacation	Surgery 3 (VMTC General Surgery)
40	3-Jul-23	Thoracic Surgery 3 (M108)	Hepatobiliary and Transplant Surgery 3 (M108)	Gastrointestinal Surgery 3 (M108)	Surgery 3 (VMTC General Surgery)
41	10-Jul-23	Thoracic Surgery 3 (M108)	Hepatobiliary and Transplant Surgery 3 (M108)	Gastrointestinal Surgery 3 (M108)	Surgery 3 (VMTC General Surgery)
42	17-Jul-23	Thoracic Surgery 3 (M108)	Hepatobiliary and Transplant Surgery 3 (M108)	Gastrointestinal Surgery 3 (M108)	Surgery 3 (VMTC General Surgery)
43	24-Jul-23	Thoracic Surgery 3 (M108)	Vacation	Gastrointestinal Surgery 3 (M108)	Vacation
44	31-Jul-23	Thoracic Surgery 3 (M108)	Breast Surgery (M108)	Surgery 3 (VMTC General Surgery)	Hepatobiliary and Transplant Surgery 3 (M108)
45	7-Aug-23	Thoracic Surgery 3 (M108)	Breast Surgery (M108)	Surgery 3 (VMTC General Surgery)	Hepatobiliary and Transplant Surgery 3 (M108)
46	14-Aug-23	Thoracic Surgery 3 (M108)	Breast Surgery (M108)	Surgery 3 (VMTC General Surgery)	Hepatobiliary and Transplant Surgery 3 (M108)
47	21-Aug-23	Thoracic Surgery 3 (M108)	Breast Surgery (M108)	Surgery 3 (VMTC General Surgery)	Hepatobiliary and Transplant Surgery 3 (M108)
48	28-Aug-23	Vacation	Breast Surgery (M108)	Hepatobiliary and Transplant Surgery 3 (M108)	Surgical Intensive Care Unit 3 (M108)
49	4-Sep-23	Surgery 3 (VMTC General Surgery)	Breast Surgery (M108)	Hepatobiliary and Transplant Surgery 3 (M108)	Surgical Intensive Care Unit 3 (M108)
50	11-Sep-23	Surgery 3 (VMTC General Surgery)	Breast Surgery (M108)	Hepatobiliary and Transplant Surgery 3 (M108)	Surgical Intensive Care Unit 3 (M108)
51	18-Sep-23	Surgery 3 (VMTC General Surgery)	Breast Surgery (M108)	Hepatobiliary and Transplant Surgery 3 (M108)	Surgical Intensive Care Unit 3 (M108)
52	25-Sep-23	Surgery 3 (VMTC General Surgery)	Vacation	Vacation	Vacation

3.3.2.4 Year Planner for PGY4

Rotation Schedule for General Surgery PGY4					
Week	Monday	Resident A	Resident B	Resident C	Resident D
1	3-Oct-22	Surgery 4 (VMTC General Surgery)	Hepatobiliary and Transplant Surgery 4 (M108)	Gastrointestinal Surgery 4 (M108)	Colorectal Surgery 4 (M108)

2	10-Oct-22	Surgery 4 (VMTC General Surgery)	Hepatobiliary and Transplant Surgery 4 (M108)	Gastrointestinal Surgery 4 (M108)	Colorectal Surgery 4 (M108)
3	17-Oct-22	Surgery 4 (VMTC General Surgery)	Hepatobiliary and Transplant Surgery 4 (M108)	Gastrointestinal Surgery 4 (M108)	Colorectal Surgery 4 (M108)
4	24-Oct-22	Surgery 4 (VMTC General Surgery)	Hepatobiliary and Transplant Surgery 4 (M108)	Gastrointestinal Surgery 4 (M108)	Colorectal Surgery 4 (M108)
5	31-Oct-22	Surgery 4 (VMTC General Surgery)	Hepatobiliary and Transplant Surgery 4 (M108)	Gastrointestinal Surgery 4 (M108)	Colorectal Surgery 4 (M108)
6	7-Nov-22	Surgery 4 (VMTC General Surgery)	Hepatobiliary and Transplant Surgery 4 (M108)	Gastrointestinal Surgery 4 (M108)	Colorectal Surgery 4 (M108)
7	14-Nov-22	Surgery 4 (VMTC General Surgery)	Hepatobiliary and Transplant Surgery 4 (M108)	Gastrointestinal Surgery 4 (M108)	Colorectal Surgery 4 (M108)
8	21-Nov-22	Surgery 4 (VMTC General Surgery)	Hepatobiliary and Transplant Surgery 4 (M108)	Gastrointestinal Surgery 4 (M108)	Colorectal Surgery 4 (M108)
9	28-Nov-22	Gastrointestinal Surgery 4 (M108)	Surgery 4 (VMTC General Surgery)	Colorectal Surgery 4 (M108)	Hepatobiliary and Transplant Surgery 4 (M108)
10	5-Dec-22	Gastrointestinal Surgery 4 (M108)	Surgery 4 (VMTC General Surgery)	Colorectal Surgery 4 (M108)	Hepatobiliary and Transplant Surgery 4 (M108)
11	12-Dec-22	Gastrointestinal Surgery 4 (M108)	Surgery 4 (VMTC General Surgery)	Colorectal Surgery 4 (M108)	Hepatobiliary and Transplant Surgery 4 (M108)
12	19-Dec-22	Gastrointestinal Surgery 4 (M108)	Surgery 4 (VMTC General Surgery)	Colorectal Surgery 4 (M108)	Hepatobiliary and Transplant Surgery 4 (M108)
13	26-Dec-22	Gastrointestinal Surgery 4 (M108)	Surgery 4 (VMTC General Surgery)	Colorectal Surgery 4 (M108)	Hepatobiliary and Transplant Surgery 4 (M108)
14	2-Jan-23	Gastrointestinal Surgery 4 (M108)	Surgery 4 (VMTC General Surgery)	Colorectal Surgery 4 (M108)	Hepatobiliary and Transplant Surgery 4 (M108)
15	9-Jan-23	Gastrointestinal Surgery 4 (M108)	Surgery 4 (VMTC General Surgery)	Colorectal Surgery 4 (M108)	Hepatobiliary and Transplant Surgery 4 (M108)
16	16-Jan-23	Gastrointestinal Surgery 4 (M108)	Surgery 4 (VMTC General Surgery)	Colorectal Surgery 4 (M108)	Hepatobiliary and Transplant Surgery 4 (M108)
17	23-Jan-23	Hepatobiliary and Transplant Surgery 4 (M108)	Gastrointestinal Surgery 4 (M108)	Surgery 4 (VMTC General Surgery)	Pediatric Surgery (NCH)
18	30-Jan-23	Vacation	Vacation	Vacation	Pediatric Surgery (NCH)
19	6-Feb-23	Hepatobiliary and Transplant Surgery 4 (M108)	Gastrointestinal Surgery 4 (M108)	Surgery 4 (VMTC General Surgery)	Pediatric Surgery (NCH)
20	13-Feb-23	Hepatobiliary and Transplant Surgery 4 (M108)	Gastrointestinal Surgery 4 (M108)	Surgery 4 (VMTC General Surgery)	Pediatric Surgery (NCH)

21	20-Feb-23	Hepatobiliary and Transplant Surgery 4 (M108)	Gastrointestinal Surgery 4 (M108)	Surgery 4 (VMTC General Surgery)	Pediatric Surgery (NCH)
22	27-Feb-23	Hepatobiliary and Transplant Surgery 4 (M108)	Gastrointestinal Surgery 4 (M108)	Surgery 4 (VMTC General Surgery)	Pediatric Surgery (NCH)
23	6-Mar-23	Hepatobiliary and Transplant Surgery 4 (M108)	Gastrointestinal Surgery 4 (M108)	Surgery 4 (VMTC General Surgery)	Pediatric Surgery (NCH)
24	13-Mar-23	Hepatobiliary and Transplant Surgery 4 (M108)	Gastrointestinal Surgery 4 (M108)	Surgery 4 (VMTC General Surgery)	Pediatric Surgery (NCH)
25	20-Mar-23	Hepatobiliary and Transplant Surgery 4 (M108)	Gastrointestinal Surgery 4 (M108)	Surgery 4 (VMTC General Surgery)	Vacation
26	27-Mar-23	Pediatric Surgery (NCH)	Endoscopy (VMTC)	Hepatobiliary and Transplant Surgery 4 (M108)	Vacation
27	3-Apr-23	Pediatric Surgery (NCH)	Endoscopy (VMTC)	Hepatobiliary and Transplant Surgery 4 (M108)	Surgery 4 (VMTC General Surgery)
28	10-Apr-23	Pediatric Surgery (NCH)	Endoscopy (VMTC)	Hepatobiliary and Transplant Surgery 4 (M108)	Surgery 4 (VMTC General Surgery)
29	17-Apr-23	Pediatric Surgery (NCH)	Endoscopy (VMTC)	Hepatobiliary and Transplant Surgery 4 (M108)	Surgery 4 (VMTC General Surgery)
30	24-Apr-23	Pediatric Surgery (NCH)	Head & Neck Surgery (M108)	Hepatobiliary and Transplant Surgery 4 (M108)	Surgery 4 (VMTC General Surgery)
31	1-May-23	Pediatric Surgery (NCH)	Head & Neck Surgery (M108)	Hepatobiliary and Transplant Surgery 4 (M108)	Surgery 4 (VMTC General Surgery)
32	8-May-23	Pediatric Surgery (NCH)	Head & Neck Surgery (M108)	Hepatobiliary and Transplant Surgery 4 (M108)	Surgery 4 (VMTC General Surgery)
33	15-May-23	Pediatric Surgery (NCH)	Head & Neck Surgery (M108)	Hepatobiliary and Transplant Surgery 4 (M108)	Surgery 4 (VMTC General Surgery)
34	22-May-23	Vacation	Vacation	Head & Neck Surgery (M108)	Surgery 4 (VMTC General Surgery)
35	29-May-23	Colorectal Surgery 4 (M108)	Pediatric Surgery (NCH)	Head & Neck Surgery (M108)	Endoscopy (VMTC)
36	5-Jun-23	Colorectal Surgery 4 (M108)	Pediatric Surgery (NCH)	Head & Neck Surgery (M108)	Endoscopy (VMTC)
37	12-Jun-23	Colorectal Surgery 4 (M108)	Pediatric Surgery (NCH)	Head & Neck Surgery (M108)	Endoscopy (VMTC)
38	19-Jun-23	Colorectal Surgery 4 (M108)	Pediatric Surgery (NCH)	Vacation	Endoscopy (VMTC)
39	26-Jun-23	Colorectal Surgery 4 (M108)	Pediatric Surgery (NCH)	Endoscopy (VMTC)	Head & Neck Surgery (M108)
40	3-Jul-23	Colorectal Surgery 4 (M108)	Pediatric Surgery (NCH)	Endoscopy (VMTC)	Head & Neck Surgery (M108)
41	10-Jul-23	Colorectal Surgery 4 (M108)	Pediatric Surgery (NCH)	Endoscopy (VMTC)	Head & Neck Surgery (M108)
42	17-Jul-23	Colorectal Surgery 4 (M108)	Pediatric Surgery (NCH)	Endoscopy (VMTC)	Head & Neck Surgery (M108)

43	24-Jul-23	Endoscopy (VMTC)	Vacation	Pediatric Surgery (NCH)	Vacation
44	31-Jul-23	Endoscopy (VMTC)	Vacation	Pediatric Surgery (NCH)	Vacation
45	7-Aug-23	Endoscopy (VMTC)	Colorectal Surgery 4 (M108)	Pediatric Surgery (NCH)	Gastrointestinal Surgery 4 (M108)
46	14-Aug-23	Endoscopy (VMTC)	Colorectal Surgery 4 (M108)	Pediatric Surgery (NCH)	Gastrointestinal Surgery 4 (M108)
47	21-Aug-23	Vacation	Colorectal Surgery 4 (M108)	Pediatric Surgery (NCH)	Gastrointestinal Surgery 4 (M108)
48	28-Aug-23	Vacation	Colorectal Surgery 4 (M108)	Pediatric Surgery (NCH)	Gastrointestinal Surgery 4 (M108)
49	4-Sep-23	Head & Neck Surgery (M108)	Colorectal Surgery 4 (M108)	Pediatric Surgery (NCH)	Gastrointestinal Surgery 4 (M108)
50	11-Sep-23	Head & Neck Surgery (M108)	Colorectal Surgery 4 (M108)	Pediatric Surgery (NCH)	Gastrointestinal Surgery 4 (M108)
51	18-Sep-23	Head & Neck Surgery (M108)	Colorectal Surgery 4 (M108)	Vacation	Gastrointestinal Surgery 4 (M108)
52	25-Sep-23	Head & Neck Surgery (M108)	Colorectal Surgery 4 (M108)	Vacation	Gastrointestinal Surgery 4 (M108)

3.3.2.5 Year Planner for PGY5

Rotation Schedule for General Surgery PGY5					
Week	Monday	Resident A	Resident B	Resident C	Resident D
1	3-Oct-22	Surgical Electives 5	Vascular Surgery 5 (BM)	Surgical Electives 5	Thoracic Surgery 5 (BM)
2	10-Oct-22	Surgical Electives 5	Vascular Surgery 5 (BM)	Surgical Electives 5	Thoracic Surgery 5 (BM)
3	17-Oct-22	Surgical Electives 5	Vascular Surgery 5 (BM)	Surgical Electives 5	Thoracic Surgery 5 (BM)
4	24-Oct-22	Surgical Electives 5	Vascular Surgery 5 (BM)	Surgical Electives 5	Thoracic Surgery 5 (BM)
5	31-Oct-22	Surgical Electives 5	Vascular Surgery 5 (BM)	Surgical Electives 5	Thoracic Surgery 5 (BM)
6	7-Nov-22	Surgical Electives 5	Vascular Surgery 5 (BM)	Surgical Electives 5	Thoracic Surgery 5 (BM)
7	14-Nov-22	Surgical Electives 5	Vascular Surgery 5 (BM)	Surgical Electives 5	Thoracic Surgery 5 (BM)
8	21-Nov-22	Surgical Electives 5	Vascular Surgery 5 (BM)	Surgical Electives 5	Thoracic Surgery 5 (BM)
9	28-Nov-22	Surgical Electives 5	Thoracic Surgery 5 (BM)	Surgical Electives 5	Surgical Electives 5
10	5-Dec-22	Surgical Electives 5	Thoracic Surgery 5 (BM)	Surgical Electives 5	Surgical Electives 5
11	12-Dec-22	Surgical Electives 5	Thoracic Surgery 5 (BM)	Surgical Electives 5	Surgical Electives 5
12	19-Dec-22	Surgical Electives 5	Thoracic Surgery 5 (BM)	Surgical Electives 5	Surgical Electives 5
13	26-Dec-22	Surgical Electives 5	Thoracic Surgery 5 (BM)	Thesis	Surgical Electives 5
14	2-Jan-23	Surgical Electives 5	Thoracic Surgery 5 (BM)	Thesis	Surgical Electives 5
15	9-Jan-23	Surgical Electives 5	Thoracic Surgery 5 (BM)	Thesis	Surgical Electives 5

16	16-Jan-23	Surgical Electives 5	Thoracic Surgery 5 (BM)	Thesis	Surgical Electives 5
17	23-Jan-23	Surgical Electives 5	Trauma Surgery (BM)	Vascular Surgery 5 (BM)	Surgical Electives 5
18	30-Jan-23	Vacation	Vacation	Vacation	Vacation
19	6-Feb-23	Surgical Electives 5	Trauma Surgery (BM)	Vascular Surgery 5 (BM)	Surgical Electives 5
20	13-Feb-23	Surgical Electives 5	Trauma Surgery (BM)	Vascular Surgery 5 (BM)	Surgical Electives 5
21	20-Feb-23	Surgical Electives 5	Trauma Surgery (BM)	Vascular Surgery 5 (BM)	Surgical Electives 5
22	27-Feb-23	Thesis	Trauma Surgery (BM)	Vascular Surgery 5 (BM)	Thesis
23	6-Mar-23	Thesis	Trauma Surgery (BM)	Vascular Surgery 5 (BM)	Thesis
24	13-Mar-23	Thesis	Trauma Surgery (BM)	Vascular Surgery 5 (BM)	Thesis
25	20-Mar-23	Thesis	Trauma Surgery (BM)	Vascular Surgery 5 (BM)	Thesis
26	27-Mar-23	Trauma Surgery (BM)	Thesis	Surgical Electives 5	Vascular Surgery 5 (BM)
27	3-Apr-23	Trauma Surgery (BM)	Thesis	Surgical Electives 5	Vascular Surgery 5 (BM)
28	10-Apr-23	Trauma Surgery (BM)	Thesis	Surgical Electives 5	Vascular Surgery 5 (BM)
29	17-Apr-23	Trauma Surgery (BM)	Thesis	Surgical Electives 5	Vascular Surgery 5 (BM)
30	24-Apr-23	Vacation	Vacation	Vacation	Vascular Surgery 5 (BM)
31	1-May-23	Trauma Surgery (BM)	Surgical Electives 5	Surgical Electives 5	Vascular Surgery 5 (BM)
32	8-May-23	Trauma Surgery (BM)	Surgical Electives 5	Surgical Electives 5	Vascular Surgery 5 (BM)
33	15-May-23	Trauma Surgery (BM)	Surgical Electives 5	Surgical Electives 5	Vascular Surgery 5 (BM)
34	22-May-23	Trauma Surgery (BM)	Surgical Electives 5	Surgical Electives 5	Vacation
35	29-May-23	Vascular Surgery 5 (BM)	Surgical Electives 5	Thoracic Surgery 5 (BM)	Trauma Surgery (BM)
36	5-Jun-23	Vascular Surgery 5 (BM)	Surgical Electives 5	Thoracic Surgery 5 (BM)	Trauma Surgery (BM)
37	12-Jun-23	Vascular Surgery 5 (BM)	Surgical Electives 5	Thoracic Surgery 5 (BM)	Trauma Surgery (BM)
38	19-Jun-23	Vascular Surgery 5 (BM)	Surgical Electives 5	Thoracic Surgery 5 (BM)	Trauma Surgery (BM)
39	26-Jun-23	Vacation	Surgical Electives 5	Vacation	Trauma Surgery (BM)
40	3-Jul-23	Vascular Surgery 5 (BM)	Surgical Electives 5	Thoracic Surgery 5 (BM)	Trauma Surgery (BM)
41	10-Jul-23	Vascular Surgery 5 (BM)	Surgical Electives 5	Thoracic Surgery 5 (BM)	Trauma Surgery (BM)
42	17-Jul-23	Vascular Surgery 5 (BM)	Surgical Electives 5	Thoracic Surgery 5 (BM)	Trauma Surgery (BM)
43	24-Jul-23	Vascular Surgery 5 (BM)	Vacation	Thoracic Surgery 5 (BM)	Vacation
44	31-Jul-23	Thoracic Surgery 5 (BM)	Surgical Electives 5	Trauma Surgery (BM)	Surgical Electives 5

45	7-Aug-23	Thoracic Surgery 5 (BM)	Surgical Electives 5	Trauma Surgery (BM)	Surgical Electives 5
46	14-Aug-23	Thoracic Surgery 5 (BM)	Surgical Electives 5	Trauma Surgery (BM)	Surgical Electives 5
47	21-Aug-23	Thoracic Surgery 5 (BM)	Surgical Electives 5	Trauma Surgery (BM)	Surgical Electives 5
48	28-Aug-23	Vacation	Surgical Electives 5	Trauma Surgery (BM)	Surgical Electives 5
49	4-Sep-23	Thoracic Surgery 5 (BM)	Surgical Electives 5	Trauma Surgery (BM)	Surgical Electives 5
50	11-Sep-23	Thoracic Surgery 5 (BM)	Surgical Electives 5	Trauma Surgery (BM)	Surgical Electives 5
51	18-Sep-23	Thoracic Surgery 5 (BM)	Surgical Electives 5	Trauma Surgery (BM)	Surgical Electives 5
52	25-Sep-23	Thoracic Surgery 5 (BM)	Vacation	Vacation	Vacation

3.3.2.6 Year Planner for PGY6

Rotation Schedule for General Surgery PGY6					
Week	Monday	Resident A	Resident B	Resident C	Resident D
1	3-Oct-22	Surgery 6 (VMTC General Surgery)	Surgical Electives 6	Surgical Electives 6	Surgical Electives 6
2	10-Oct-22	Surgery 6 (VMTC General Surgery)	Surgical Electives 6	Surgical Electives 6	Surgical Electives 6
3	17-Oct-22	Surgery 6 (VMTC General Surgery)	Surgical Electives 6	Surgical Electives 6	Surgical Electives 6
4	24-Oct-22	Surgery 6 (VMTC General Surgery)	Surgical Electives 6	Surgical Electives 6	Surgical Electives 6
5	31-Oct-22	Surgery 6 (VMTC General Surgery)	Surgical Electives 6	Surgical Electives 6	Surgical Electives 6
6	7-Nov-22	Surgery 6 (VMTC General Surgery)	Surgical Electives 6	Surgical Electives 6	Surgical Electives 6
7	14-Nov-22	Surgery 6 (VMTC General Surgery)	Surgical Electives 6	Surgical Electives 6	Surgical Electives 6
8	21-Nov-22	Surgery 6 (VMTC General Surgery)	Surgical Electives 6	Surgical Electives 6	Surgical Electives 6
9	28-Nov-22	Surgery 6 (VMTC General Surgery)	Surgical Electives 6	Surgical Electives 6	Surgical Electives 6
10	5-Dec-22	Surgery 6 (VMTC General Surgery)	Surgical Electives 6	Surgical Electives 6	Surgical Electives 6
11	12-Dec-22	Surgery 6 (VMTC General Surgery)	Surgical Electives 6	Surgical Electives 6	Surgical Electives 6
12	19-Dec-22	Surgery 6 (VMTC General Surgery)	Surgical Electives 6	Surgical Electives 6	Surgical Electives 6
13	26-Dec-22	Vacation	Surgical Electives 6	Surgical Electives 6	Surgical Electives 6
14	2-Jan-23	Surgical Electives 6	Vacation	Vacation	Vacation
15	9-Jan-23	Surgical Electives 6	Surgery 6 (VMTC General Surgery)	Surgical Electives 6	Surgical Electives 6
16	16-Jan-23	Surgical Electives 6	Surgery 6 (VMTC General Surgery)	Surgical Electives 6	Surgical Electives 6
17	23-Jan-23	Surgical Electives 6	Surgery 6 (VMTC General Surgery)	Surgical Electives 6	Surgical Electives 6
18	30-Jan-23	Vacation	Vacation	Vacation	Vacation
19	6-Feb-23	Surgical Electives 6	Surgery 6 (VMTC General Surgery)	Surgical Electives 6	Surgical Electives 6

20	13-Feb-23	Surgical Electives 6	Surgery 6 (VMTC General Surgery)	Surgical Electives 6	Surgical Electives 6
21	20-Feb-23	Surgical Electives 6	Surgery 6 (VMTC General Surgery)	Surgical Electives 6	Surgical Electives 6
22	27-Feb-23	Surgical Electives 6	Surgery 6 (VMTC General Surgery)	Surgical Electives 6	Surgical Electives 6
23	6-Mar-23	Surgical Electives 6	Surgery 6 (VMTC General Surgery)	Surgical Electives 6	Surgical Electives 6
24	13-Mar-23	Surgical Electives 6	Surgery 6 (VMTC General Surgery)	Surgical Electives 6	Surgical Electives 6
25	20-Mar-23	Surgical Electives 6	Surgery 6 (VMTC General Surgery)	Surgical Electives 6	Surgical Electives 6
26	27-Mar-23	Surgical Electives 6	Surgery 6 (VMTC General Surgery)	Surgical Electives 6	Surgical Electives 6
27	3-Apr-23	Surgical Electives 6	Surgery 6 (VMTC General Surgery)	Surgical Electives 6	Surgical Electives 6
28	10-Apr-23	Surgical Electives 6	Vacation	Surgery 6 (VMTC General Surgery)	Vacation
29	17-Apr-23	Surgical Electives 6	Surgical Electives 6	Surgery 6 (VMTC General Surgery)	Surgical Electives 6
30	24-Apr-23	Surgical Electives 6	Surgical Electives 6	Surgery 6 (VMTC General Surgery)	Surgical Electives 6
31	1-May-23	Surgical Electives 6	Surgical Electives 6	Surgery 6 (VMTC General Surgery)	Surgical Electives 6
32	8-May-23	Surgical Electives 6	Surgical Electives 6	Surgery 6 (VMTC General Surgery)	Surgical Electives 6
33	15-May-23	Surgical Electives 6	Surgical Electives 6	Surgery 6 (VMTC General Surgery)	Surgical Electives 6
34	22-May-23	Surgical Electives 6	Surgical Electives 6	Surgery 6 (VMTC General Surgery)	Surgical Electives 6
35	29-May-23	Surgical Electives 6	Surgical Electives 6	Surgery 6 (VMTC General Surgery)	Surgical Electives 6
36	5-Jun-23	Surgical Electives 6	Surgical Electives 6	Surgery 6 (VMTC General Surgery)	Surgical Electives 6
37	12-Jun-23	Vacation	Surgical Electives 6	Surgery 6 (VMTC General Surgery)	Surgical Electives 6
38	19-Jun-23	Surgical Electives 6	Surgical Electives 6	Surgery 6 (VMTC General Surgery)	Surgical Electives 6
39	26-Jun-23	Surgical Electives 6	Surgical Electives 6	Surgery 6 (VMTC General Surgery)	Surgical Electives 6
40	3-Jul-23	Surgical Electives 6	Surgical Electives 6	Vacation	Vacation
41	10-Jul-23	Surgical Electives 6	Surgical Electives 6	Surgical Electives 6	Surgery 6 (VMTC General Surgery)
42	17-Jul-23	Surgical Electives 6	Surgical Electives 6	Surgical Electives 6	Surgery 6 (VMTC General Surgery)
43	24-Jul-23	Surgical Electives 6	Surgical Electives 6	Surgical Electives 6	Surgery 6 (VMTC General Surgery)
44	31-Jul-23	Surgical Electives 6	Surgical Electives 6	Surgical Electives 6	Surgery 6 (VMTC General Surgery)
45	7-Aug-23	Surgical Electives 6	Surgical Electives 6	Surgical Electives 6	Surgery 6 (VMTC General Surgery)
46	14-Aug-23	Surgical Electives 6	Surgical Electives 6	Surgical Electives 6	Surgery 6 (VMTC General Surgery)
47	21-Aug-23	Surgical Electives 6	Surgical Electives 6	Surgical Electives 6	Surgery 6 (VMTC General Surgery)
48	28-Aug-23	Surgical Electives 6	Surgical Electives 6	Surgical Electives 6	Surgery 6 (VMTC General Surgery)

49	4-Sep-23	Surgical Electives 6	Surgical Electives 6	Surgical Electives 6	Surgery 6 (VMTC General Surgery)
50	11-Sep-23	Surgical Electives 6	Surgical Electives 6	Surgical Electives 6	Surgery 6 (VMTC General Surgery)
51	18-Sep-23	Surgical Electives 6	Surgical Electives 6	Surgical Electives 6	Surgery 6 (VMTC General Surgery)
52	25-Sep-23	Vacation	Vacation	Vacation	Surgery 6 (VMTC General Surgery)

3.4. Brief Course Descriptions

3.4.1 Compulsory Courses by MOH

Marxism-Leninism Philosophy (Philosophy Science and Society) (HASS1010, 3 credits, 3 theory, 0 practice) – PGY1 at VinUni campus

Philosophy will help residents achieve VinUni's learning outcomes related to their qualities, abilities, critical thinking, national pride and global awareness as outlined in the Competency Framework of VinUni learners.

Research Methods and Evidence-Based Medicine (CCSC6142, 2 credits, 2 theory, 0 practice) – PGY1 at VinUni campus

The Research course provides an overview on the research process, research methods, and EBM. Specific topics covered in this course include introduction to public health, study design, measures of disease, formulation of research questions using the PICO (Population/Patient, Intervention, Control/Comparison, Outcome) format, and EBM. Learners will learn to apply research methods and EBM into patient care scenarios to as well as into scholarship. The Learning objectives of this course includes recognizing the importance of research and evidence-based medicine; summarizing the steps needed to practice evidence-based medicine; demonstrating proficiency in formulating a research question using the PICO framework; describing the process to conduct a literature search; learning to effectively facilitate a journal club session.

Medical English (ENGL6011, 10 credits, 10 theory, 0 practice) – PGY1 & PGY2 at various locations

The courses are focused on improving residents' English language proficiency, clinical communication skills, intercultural competence, and academic literacies.

Medical English combines teacher-led online learning with guided independent self-study. By doing so, residents can focus on the skills and topics that are most useful for them and create their own personalized learning plan with the support of the instructor. This allows each resident to have their own tailored learning pathway based on their unique needs.

Live classes will focus on applying the language and content from their independent learning through communicative activities and feedback.

By the end of this course, the general English proficiency and clinical communicative skills of learners will improve, helping them communicate more effectively in English with patients and healthcare professionals from diverse backgrounds.

Medical Pedagogy (PEDA6011, 2 credits, 2 theory, 0 practice) – PGY1 & PGY2 at various locations

The overriding goal of this course is for residents to develop the knowledge, attitudes, and skills needed to effectively understand and integrate core concepts in medical education into your work as a physician. By offering opportunities for residents to hone their skills in areas such as clinical reasoning, giving feedback, and assessing junior trainees and learners, we aim to strengthen the physician workforce and to promote the delivery of high-quality health care in Vietnam.

This course will occur over a 2-year period during residency training. The first credit will be delivered during the Core Clinical Skills course of the PGY-1 year, and the second credit will be delivered during the PGY-2 year.

Part 1 will consist of 5 workshops, and the exact timing of the workshops will be decided in conjunction with the course director(s) of Core Clinical Skills. Part 2 will consist of 3 workshops delivered on working Saturdays. In both Parts 1 and 2, GME residents will join the sessions

together. This course uses multiple teaching modalities including but not limited to didactic lectures, facilitated small-group discussion, case studies, role play, and simulation training.

3.4.2 Supporting Courses

Medical Knowledge (CCSC6110, 9 credits, 8 theory, 1 practice) – PGY1 at VinUni campus

The Medical Knowledge course covers a broad range of fundamental topics relevant to all residents. Foundational knowledge in the biomedical sciences and patient care is emphasized through the application of critical thinking, evidence-based medicine, and team-based learning. Course content includes laboratory interpretation, clinical pharmacology, basic radiology interpretation, differential diagnosis, and clinical emergency scenarios. This practical course provides an extensive foundation in medical knowledge prior to starting clinical rotations.

Course Learning Objectives

- Define what it means to create a differential diagnosis
- Establish a comprehensive method for developing a broad differential diagnosis
- Classify major drugs and drug classes used in clinical practice
- Demonstrate an evidence-based approach to pharmacologic treatment for specific conditions and patients
- Describe common indications for laboratory testing
- Interpret common laboratory test results appropriately and precisely
- Recognize common presentations of critical illness for a variety of age groups
- Summarize the initial medical management and stabilization required for common clinical emergencies
- Recognize basic anatomy and pathology on imaging studies
- Describe a systematic approach for reviewing x-rays of the chest and abdomen
- Develop a systematic approach for reviewing an ECG (i.e., rate, rhythm, axis, intervals, waveforms)

Practice of Medicine (CCSC6120, 7 credits, 3 theory, 4 practice) – PGY1 at VinUni campus

The Practice of Medicine course reinforces core principles focused around professionalism, interpersonal and communication skills, and effective patient care. Topics covered in this course include medical ethics, professionalism, communication skills, history taking, physical examination, and a longitudinal community service project. Throughout this course, residents will learn about and apply important knowledge and skills required to provide compassionate and effective patient care.

Course Learning Objectives

- Recognize the importance of the physical examination to aid clinical decision making
- Review the different components of the physical examination, including the use of inspection, palpation, percussion, auscultation, and instrumentation
- Practice the basic repertoire of physical examination maneuvers
- Summarize the different types of written patient presentations (e.g., new patient versus established patient)
- Communicate in oral form a complete patient presentation
- Recognize the key role of communication in patient care and interprofessional collaboration
- Demonstrate effective communication in a variety of settings including obtaining patient consent, medical error disclosure, breaking bad news, and end of life care planning

- Describe medical professionalism and the fundamental principles and professional responsibilities.

Simulation Training and Clinical Procedural Skills (CCSC6130, 5 credits, 0 theory, 5 practice) – PGY1 at VinUni campus

The Simulation Training and Clinical Procedural Skills course utilizes a variety of teaching pedagogies to develop practical skills required for all residents. The curriculum includes a combination of didactic lectures, small-group learning, and simulation activities that are primarily conducted at the VinUniversity Simulation Center. Core content covered in this course includes Basic Life Support (BLS), Advanced Cardiovascular Life Support (ACLS), and Pediatric Advanced Life Support (PALS) training as well as communication skills training, procedural skills training, and mock code simulations.

Course Learning Objectives

- Attain certification in Basic Life Support (BLS), Advanced Cardiac Life Support (ACLS) and/or Pediatric Advanced Life Support (PALS).
- Practice advanced life support skills in clinical scenarios in a simulated setting.
- Understand the indications, contraindications, potential complications, anatomic considerations, required equipment, and expected outcomes for procedures that are commonly performed in the clinical setting.
- Develop proper and safe basic techniques for procedures that are commonly performed in the clinical setting to facilitate future deliberate practice in the simulation and clinical setting.

3.4.3 Core Clinical Rotations

Radiology (SURR6060, 2.5 credits, 0.5 theory, 2 practice) – PGY1 at VMTC

Due to the critical nature of many traumatic and surgical diseases, surgeons must possess the ability to correctly and efficiently read radiological studies, including plain films and computed tomography (CT) scans. Furthermore, the use of radiological guided drains and biopsies are increasingly important tools in modern day surgery, particularly oncologic and breast surgery. On this rotation, residents will work with attending radiologists to learn to read plain films, ultrasound images, and CT scans. They will also work with the interventional radiologists to learn how to perform needle localization for breast biopsy, image guided biopsy, and image guided drain placement.

Intensive Care Unit 1 (SURR6021, 2.5 credits, 0.5 theory, 2 practice) – PGY1 at VMTC

Critical care medicine encompasses the diagnosis and treatment of a wide range of clinical problems representing the extreme of human disease. Critically ill patients require intensive care by a coordinated team including the critical care physicians, operating/attending surgeons, subspecialists, and allied health professional staff. Most often, these patients are primarily managed by a physician trained in critical care. However, in some settings, the critically ill trauma or surgical patient must be managed by the general surgeon. Therefore, general surgeons must have command of a broad range of conditions common among critically ill patients, and must be familiar with the technologic procedures and devices used in the intensive care setting. The care of critically ill patients also raises many complicated ethical and social issues, and the general surgeon must be competent in such areas as end-of-life decisions, advance directives, estimating prognosis, and the counseling of patients and their families.

In addition, residents will have the opportunity to learn procedures under the direct supervision of the Critical Care faculty. Central venous, pulmonary artery, peripheral arterial catheter placement, thoracentesis, paracentesis, lumbar puncture, endotracheal intubation, bronchoscopy, and arthrocentesis will be performed under the direct supervision of the attending until the resident has demonstrated competency in these procedures.

Anesthesia (SURR6100, 3.75 credits, 0.75 theory, 3 practice) – PGY1 at VMTC

In the operating theatre, anesthesiologists and surgeons must work closely together to provide the absolute best care for the patient. Furthermore, airway management is a critical set of skills that all surgeons must possess. During this rotation, residents will work in the operating theatre under the direct supervision of the attending anesthesiologist. They will learn all aspects of non-surgical airway management from direct laryngoscopy to fiberoptic intubation, gain a basic knowledge of inhalational, regional and intravenous anesthesia, and have the opportunity to perform arterial and central venous line placement.

Surgical Emergency Department 1 (SURR6031, 2.5 credits, 0.5 theory, 2 practice) – PGY1 at VMTC

Surgical Emergency Department 2 (SURR6032, 5 credits, 1 theory, 4 practice) – PGY2 at M108

Emergency medicine involves the evaluation and care of acute illness and injury requiring intervention within a limited time span. It is defined by a time interval, rather than by a particular organ. Some conditions may be encountered in office practice, others in acute care settings. Regardless of the setting, general surgeons should be able to manage both common medical and surgical emergency conditions and provide consultation and management for a variety of acute serious illnesses.

Residents will perform initial evaluations of adult and adolescent patients presenting to the ED with the full range of differentiated and undifferentiated medical and surgical problems, with a particular focus on patients with potentially surgical problems. At Military 108, this will include evaluation of patients presenting to traumatic injuries. The residents will then present their findings to an emergency medicine attending who sees the patient to verify history and physical findings. Together, they develop a diagnostic and therapeutic plan.

Residents will have the opportunity to learn procedures under the direct supervision of the EM faculty. Central venous and arterial catheter placement, thoracentesis, tube thoracostomy, paracentesis, fracture reduction, traction splint placement, lumbar puncture, endotracheal intubation, arthrocentesis, and pelvic examination will be performed under the direct supervision of the attending until the resident has demonstrated competency in these procedures. In addition, microscopic analysis of urine, sputum, pleural, peritoneal, and joint fluid specimens will be performed.

Surgery 1 (SURR6011, 8.75 credits, 1.75 theory, 7 practice) – PGY1 at VMTC

Surgery 2 (SURR6012, 10 credits, 2 theory, 8 practice) – PGY2 at VMTC

Surgery 3 (SURR6013, 5 credits, 1 theory, 4 practice) – PGY3 at VMTC

Surgery 4 (SURR6014, 10 credits, 2 theory, 8 practice) – PGY4 at VMTC

Surgery 6 (SURR6016, 15 credits, 3 theory, 12 practice) – PGY6 at VMTC

Residents will rotate through a combined surgery service at VMTC during most years of their residency. During the PGY1 year this rotation will provide an introduction to inpatient surgery. However, as the residents progress through the program, it will serve as the penultimate rotation

for the senior residents to demonstrate their broad knowledge of the surgical sciences. The core surgical specialties of this service will include: gastrointestinal surgery, hepatobiliary surgery, breast surgery, urology and orthopedic surgery. As with all surgery rotations, operative participation, autonomy, and case complexity will increase as the resident gains appropriate knowledge and skills as determined by the teaching faculty. This rotation is meant to become a major cornerstone of the training residents receive from this program. It is also specifically designed with the expectation that it will continue to grow and evolve with the changing needs of the program.

Gastrointestinal Surgery 2 (SURR6142, 10 credits, 2 theory, 8 practice) – PGY2 at M108

Gastrointestinal Surgery 3 (SURR6143, 5 credits, 1 theory, 4 practice) – PGY3 at M108

Gastrointestinal Surgery 4 (SURR6144, 10 credits, 2 theory, 8 practice) – PGY4 M108

Understanding the pre-operative, intraoperative and post-operative management of patients with surgical diseases affecting the alimentary tract is critical to becoming a general surgeon. By the time of graduation, residents will be expected to be proficient in the workup and management of patients with appendicitis, biliary disease, ventral hernia, umbilical hernia, inguinal hernia, esophageal reflux, peptic ulcer disease, small bowel obstruction, hiatal hernia, and achalasia. Residents will work under the direct supervision of the attending surgeon as well as senior residents on the service. Learning will occur on ward rounds, in the operating theatre as well as the outpatient clinic. As with all surgery rotations, operative participation, autonomy, and case complexity will increase as the resident gains appropriate knowledge and skills as determined by the teaching faculty.

Hepatobiliary and Transplant Surgery 1 (SURR6181, 5 credits, 1 theory, 4 practice) – PGY1 at M108

Hepatobiliary and Transplant Surgery 2 (SURR6182, 10 credits, 2 theory, 8 practice) – PGY2 at M108

Hepatobiliary and Transplant Surgery 3 (SURR6183, 5 credits, 1 theory, 4 practice) – PGY3 at M108

Hepatobiliary and Transplant Surgery 4 (SURR6184, 10 credits, 2 theory, 8 practice) – PGY4 at M108

On this rotation, residents will gain exposure to surgery for benign and malignant diseases of the pancreas, liver and biliary tract. Residents will work under the direct supervision of the attending hepatobiliary surgeons. Learning will occur on ward rounds, in the operating theatre and the outpatient clinic. Prior to graduation residents will be expected to be proficient at performing pancreatectomy, partial hepatectomy, and biliary and pancreatic anastomosis under supervision. Furthermore, they will possess the knowledge to appropriately work up patients with pancreatic and liver masses and demonstrate an understanding of the staging systems used in cancers of the pancreas and biliary tract. As with all surgery rotations, operative participation, autonomy, and case complexity will increase as the resident gains appropriate knowledge and skills as determined by the teaching faculty.

Trauma and Orthopedic Surgery 2 (SURR6132, 10 credits, 2 theory, 8 practice) – PGY2 at M108

Trauma Surgery 5 (SURR6135, 10 credits, 2 theory, 8 practice) – PGY5 at BM

Trauma is a leading cause of death and morbidity in Vietnam. On this rotation, residents will work under the direct supervision of the emergency room physicians and surgeons responsible for the

care of trauma patients. Teaching will be done in the emergency department, inpatient wards and operating theatre. Residents are expected to become proficient at initial stabilization and appropriate workup of the trauma patient. They will learn the absolute indications for operation and gain appropriate knowledge, skills and judgment to pursue non-operative or operative management as necessary. Residents will repeatedly rotate through this service and increasingly take on more responsibility and autonomy.

Colorectal Surgery 2 (SURR6122, 10 credits, 2 theory, 8 practice) – PGY2 at M108

Colorectal Surgery 3 (SURR6123, 5 credits, 1 theory, 4 practice) – PGY3 at M108

Colorectal Surgery 4 (SURR6124, 10 credits, 2 theory, 8 practice) – PGY4 at M108

On this rotation, residents will gain exposure to surgery for benign and malignant diseases of the lower gastrointestinal tract. Residents will work under the direct supervision of the attending colorectal surgeons. Learning will occur on ward rounds, in the operating theatre and the outpatient clinic. Prior to graduation residents will be expected to be proficient at performing colectomy (left and right) for both benign and malignant disease, hemorrhoidectomy, fistulotomy and the surgical management of pilonidal disease. Furthermore, they will possess the knowledge to appropriately work up and manage patients with suspected inflammatory bowel disease and demonstrate an understanding of the staging system and multidisciplinary approach used for colon and rectal cancers. As with all surgery rotations, operative participation, autonomy, and case complexity will increase as the resident gains appropriate knowledge and skills as determined by the teaching faculty.

Surgical Intensive Care Unit 1 (SURR6111, 5 credits, 1 theory, 4 practice) – PGY1 at M108

Surgical Intensive Care Unit 2 (SURR6112, 5 credits, 1 theory, 4 practice) – PGY2 at M108

Surgical Intensive Care Unit 3 (SURR6113, 10 credits, 2 theory, 8 practice) – PGY3 at M108

In addition to the critical care knowledge and skills gained during the ICU rotation at VMTC, residents will spend dedicated time in the Surgical Intensive Care Unit at Military 108. During this rotation they will learn the advanced knowledge and skills necessary to specifically manage critically ill trauma and complex post-operative patients such as cardiac, vascular and transplant patients.

Thoracic Surgery 3 (SURR6153, 10 credits, 2 theory, 8 practice) – PGY3 at M108

Thoracic Surgery 5 (SURR6155, 10 credits, 2 theory, 8 practice) – PGY5 at M108

On this rotation, residents will gain exposure to surgery for benign and malignant diseases of the chest. Residents will work under the direct supervision of the attending cardiac and thoracic surgeons. Learning will occur on ward rounds, in the operating theatre and the outpatient clinic. Prior to graduation residents will be expected to be proficient at the skills necessary for tube thoracostomy, thoracotomy, and wedge resection and lobectomy. Furthermore, they will possess the knowledge to appropriately work up and manage patients with a spontaneous pneumothorax and newly diagnosed lung mass. As with all surgery rotations, operative participation, autonomy, and case complexity will increase as the resident gains appropriate knowledge and skills as determined by the teaching faculty.

Vascular Surgery 3 (SURR6163, 10 credits, 2 theory, 8 practice) – PGY3 at M108

Vascular Surgery 5 (SURR6165, 10 credits, 2 theory, 8 practice) – PGY5 at BM

General surgeons must have a firm grasp on the pre-operative, intraoperative and post-operative management of patients with vascular disease. Specifically, this rotation will focus on peripheral arterial disease, aortic aneurysms, surgery for cerebrovascular disease and vascular access

surgery for patients with end stage renal disease (ESRD). Residents will work under the direct supervision of the attending vascular surgeons as well as senior residents on the service. Learning will occur on ward rounds, in the operating theatre as well as the outpatient clinic. Prior to graduation residents will be expected to be proficient at the skills necessary to perform a vascular anastomosis, vessel repair, and carotid and femoral endarterectomy. Furthermore, they must understand the management of patients with aneurysmal disease of the aorta and appropriately workup patients being considered for arteriovenous fistula creation for ESRD.

Breast Surgery (SURR6050, 10 credits, 2 theory, 8 practice) – PGY3 at M108

Residents will rotate on this service for 8 weeks during the PGY3 year. As with all surgery rotations, operative participation, autonomy, and case complexity will increase as the resident gains appropriate knowledge and skills as determined by the teaching faculty.

Surgery is central to the management of both benign and malignant diseases of the breast. During this rotation, residents will work under the supervision of surgeons performing breast surgery in the Gynecology Department of 108 hospital. Teaching will be done in the outpatient clinics, wards and operating theatre. They will also attend tumor board and be expected to actively participate in the discussion and presentations of patients.

By graduation residents will be expected to be able to perform the appropriate workup of: 1) palpable breast masses (both malignant and benign), 2) abnormal breast imaging, 3) nipple discharge and appropriate operative and/or non-operative intervention for each. They will also become knowledgeable of the multidisciplinary approach to breast cancer and the roles medicine and radiation play in adjuvant and neoadjuvant treatment. They will further be expected to appropriately understand breast cancer staging and prognosis and become competent at interpreting radiologic studies of the breast including mammograms, ultrasound and breast MRI.

Pediatric Surgery (SURR6170, 10 credits, 2 theory, 8 practice) – PGY4 at NCH

The surgical diseases and management of pediatric patients are vastly different from those in adult surgery. In some settings, the general surgeon must provide surgical care to pediatric patients presenting with basic pediatric surgical diseases such as hernias as well as those needing emergency surgical intervention. During this rotation residents will work under the close supervision of attending pediatric surgeons at the National Children's Hospital. They will be expected to become proficient in the pre-operative, operative, and post-operative management of pediatric patients with inguinal hernia, umbilical hernia, hypertrophic pyloric stenosis (HPS), and appendicitis as well as emergency conditions including necrotizing enterocolitis, midgut volvulus, intussusception and trauma. They will further be expected to gain knowledge regarding congenital conditions requiring surgical care including gastroschisis, omphalocele, congenital diaphragmatic hernia, trachea-esophageal fistula as well as become proficient in performing the initial workup and management of newborns with these conditions.

Endoscopy (SURR6081, 5 credits, 1 theory, 4 practice) – PGY4 at VMTC

Colonoscopy, esophagogastroduodenoscopy (EGD), and bronchoscopy are important diagnostic and therapeutic procedures that all surgeons must be able to perform efficiently and safely. Indeed proficiency in these procedures is mandated by the ACGME-I which requires that all residents complete 35 EGDs and 50 colonoscopies prior to graduation. During two 2-week periods in the PGY1A and PGY1B years, residents will work with attending gastroenterologists and surgeons to perform EGD, colonoscopy and bronchoscopy under the direct supervision of these attendings. By

the end of their endoscopy rotations residents will be expected to be proficient to perform these procedures independently.

Head and Neck Surgery (SURR6172, 5 credits, 1 theory, 4 practice) – PGY4 at M108

On this rotation, residents will experience surgery for Head, Neck, Skin and Soft Tissue diseases. Learning will occur on ward rounds, in the operating theatre and the outpatient clinic.

Surgical Electives 5 (SURR6200, 25 credits, 5 theory, 20 practice) – PGY5 at various locations

Surgical Electives 6 (SURR6201, 45 credits, 9 theory, 36 practice) – PGY5 at various locations

During the PGY5 and PGY6 years, residents will be allowed to work on rotations of their choice within the teaching hospitals of the General Surgery Residency program (VMTC, M108, NCH or BM). These are intended to allow residents to receive further training in specific areas of surgery which interest them, or which may be critical to any specialized training they wish to receive after completing the residency. A total of 56 weeks (20 in PGY5 and 36 in PGY6) of elective time will be allowed. All elective rotations must be personally approved by the program director prior to the start of any academic year.

3.4.4 Graduation Thesis

Thesis (SURR6890, 10 credits, 0 theory, 10 practice) – PGY5 at various locations

PGY5 residents will be allocated a dedicated four-week period outside their clinical rotation schedule, supplemented with additional time, to formulate a research proposal, obtain Institutional Review Board (IRB) approval, engage in research activities, compose their thesis, and subsequently defend it.

APPENDIX

Appendix 1: **Specific Graduate Attributes**

Appendix 2: **Competency Standards for Residency Doctor**

Appendix 3: **Mapping Generic Graduate Attributes with Competency Standards**

Appendix 4: **Comparison of Competency Standards**

Appendix 1: Specific Graduate Attributes

The seven specific graduate attributes for VinUniversity – College of Health Sciences for the medicine (both MD and residents) and nursing programs are listed below:

#	Specific Graduate Attributes for VinUni-HS	Resident Attributes
1	Scholarship/ Research and inquiry	<ul style="list-style-type: none"> • Apply critical thinking and evidence-based practice when caring for patients and their families. • Demonstrate a basic understanding of research methods.
2	Lifelong learning/ Information literacy	<ul style="list-style-type: none"> • Demonstrate pro-active learning, innovation, and an enthusiasm for life-long learning. • Exhibit proficiency in applying knowledge within different contexts. • Efficiently search for and locate evidence that is relevant and reliable to support care decisions, inform practice, and advance knowledge.
3	Personal and intellectual autonomy	<ul style="list-style-type: none"> • Demonstrate accurate self-assessment of competence. • Possess independence and motivation to improve practice through advancement of knowledge and skills. • Solicit feedback, demonstrate receptiveness to feedback, and implement change. • Demonstrate accountability for clinical practice and research decisions.
4	Professional practice and quality health care	<ul style="list-style-type: none"> • Demonstrate critical thinking. • Apply knowledge and skills effectively in clinical practice, population health, and research. • Recognize limitations in knowledge or skills and seek appropriate consultation from other health care professionals. • Demonstrate evidence-based, high quality care for all patients and families.
5	Ethical, social, and professional accountability and responsibility	<ul style="list-style-type: none"> • Develop a personal and professional sense of responsibility to contribute to local, national, and global communities. • Uphold all legal regulations and ethical standards. • Provide patient-centered care that respects each patient's individuality, culture, and autonomy in making health care decisions.
6	Communication	<ul style="list-style-type: none"> • Recognize the importance of communication for learning, patient care, and interdisciplinary collaboration. • Possess interpersonal and communication skills to effectively present ideas using different methods, including information and communication technology. • Demonstrate effective communication with patients, their families, and with interdisciplinary team members to optimize patient care and provide coordinated care.
7	Collaboration/ Leadership and teamwork	<ul style="list-style-type: none"> • Demonstrate respect for and work effectively with all members of an interdisciplinary team. • Demonstrate enthusiasm and proficiency in management of time and the promotion of learning for others. • Demonstrate professional practice in leadership, interdisciplinary teamwork, and patient care.

Appendix 2: Competency Standards for Residency Doctor

Residents Competencies - ACGME-I	
<p>1. Patient Care Residents must be able to provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health. Residents must demonstrate proficiency in:</p>	<p>1.1. Manual dexterity appropriate for their level; 1.2. Developing and executing patient care plans appropriate for their level, including management of pain; 1.3. Managing patients with severe and complex illnesses and with major injuries; 1.4. Essential content areas of: the abdomen and its contents; the alimentary tract; skin, soft tissues, and breast; endocrine surgery; head and neck surgery; pediatric surgery; surgical critical care; surgical oncology; trauma and non-operative trauma; and the vascular system; and, 1.5. Managing general surgical conditions arising in transplant patients.</p>
<p>2. Medical Knowledge Residents must demonstrate knowledge of established and evolving biomedical, clinical, epidemiological, and social-behavioral sciences, as well as the application of this knowledge to patient care. Residents must demonstrate proficiency in knowledge of:</p>	<p>2.1. Critical evaluation of pertinent scientific information; 2.2. Fundamentals of basic science as applied to clinical surgery; 2.3. Applied surgical anatomy and surgical pathology; 2.4. Elements of wound healing; 2.5. Homeostasis, shock, and circulatory physiology; 2.6. Hematologic disorders; 2.7. Immunobiology and transplantation; 2.8. Oncology; 2.9. Surgical endocrinology; 2.10. Surgical nutrition, and fluid and electrolyte balance; 2.11. Metabolic response to injury; and, 2.12. Burn physiology and initial burn management.</p>
<p>3. Practice-based Learning and Improvement Residents must demonstrate the ability to investigate and evaluate their care of patients, to appraise and assimilate scientific evidence, and to continuously improve patient care based on constant self-evaluation and life-long learning. Residents are expected to develop skills and habits to be able to meet the following goals:</p>	<p>3.1. Identify strengths, deficiencies, and limits in one's knowledge and expertise; 3.2. Set learning and improvement goals; 3.3. Identify and perform appropriate learning activities; 3.4. Systematically analyze practice using quality improvement methods, and implement changes with the goal of practice improvement; 3.5. Incorporate formative evaluation feedback into daily practice; 3.6. Locate, appraise, and assimilate evidence from scientific studies related to their patients' health problems; 3.7. Use information technology to optimize learning; 3.8. Participate in the education of patients, families, students, residents and other health professionals; 3.9. Participate in morbidity and mortality conferences that evaluate and analyze patient care outcomes; and, 3.10. Utilize an evidence-based approach to patient care.</p>

<p>4. Interpersonal and Communication Skills Residents must demonstrate interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families, and health professionals. Residents must:</p>	<p>4.1. Communicate effectively with patients and their families, and the public, as appropriate, across a broad range of socioeconomic and cultural backgrounds; 4.2. Communicate effectively with physicians, other health professionals, and health-related agencies; 4.3. Work effectively as a member or leader of a health care team or other professional group; 4.4. Act in a consultative role to other physicians and health professionals; 4.5. Maintain comprehensive, timely, and legible medical records; 4.6. Counsel and educate patients and their families; and, 4.7. Effectively document practice activities.</p>
<p>5. Professionalism Residents must demonstrate a commitment to carrying out professional responsibilities and an adherence to ethical principles. Residents must demonstrate:</p>	<p>5.1. Compassion, integrity, and respect for others; 5.2. Responsiveness to patient needs that supersedes self-interest; 5.3. Respect for patient privacy and autonomy; 5.4. Accountability to patients, society, and the profession; 5.5. Sensitivity and responsiveness to a diverse patient population, including diversity in gender, age, culture, race, religion, disabilities, and sexual orientation; 5.6. High standards of ethical behavior; and, 5.7. Commitment to continuous patient care.</p>
<p>6. Systems-based Practice Residents must demonstrate an awareness of and responsiveness to the larger context and system of health care, as well as the ability to call effectively on other resources in the system to provide optimal health care. Residents must:</p>	<p>6.1. Work effectively in various health care delivery settings and systems relevant to their clinical specialty; 6.2. Coordinate patient care within the health care system relevant to their clinical specialty; 6.3. Incorporate considerations of cost awareness and risk-benefit analysis in patient and/or population-based care, as appropriate; 6.4. Advocate for quality patient care and optimal patient care systems; 6.5. Work in inter-professional teams to enhance patient safety and improve patient care quality; 6.6. Participate in identifying system errors and implementing potential systems solutions; 6.7. Practice high-quality, cost-effective patient care; 6.8. Demonstrate knowledge of risk-benefit analysis; and, 6.9. Demonstrate an understanding of the roles of different specialists and other health care professionals in overall patient management.</p>

Appendix 3: Mapping Generic Graduate Attributes with Competency Standards

VinUni Generic GAs	Specific GA requirements for health science students	Linked to Residency competency standards
Character	<ul style="list-style-type: none"> - Possess independence and motivation to improve practice through advancement of knowledge and skills (Personal and intellectual autonomy) '- Recognize limitations in knowledge or skills and seek appropriate consultation from other health care professionals (Professional practice and quality health care) 	Competency 3.1: Identify strengths, deficiencies, and limits in one’s knowledge and expertise
		Competency 3.2: Set learning and improvement goals
		Competency 3.3: Identify and perform appropriate learning activities
Competence	<ul style="list-style-type: none"> • Demonstrate a basic understanding of research methods (Scholarship/Research and inquiry) • Exhibit proficiency in applying knowledge within different contexts. (Lifelong learning/Information literacy) • Demonstrate accurate self-assessment of competence (Personal and intellectual autonomy) • Demonstrate accountability for clinical practice and research decisions (Personal and intellectual autonomy) • Demonstrate evidence-based, high quality care for all patients and families (Professional practice and quality health care) • Uphold all legal regulations and ethical standards (Ethical, Social, and professional accountability and responsibility) • Provide patient-centered care that 	Competency 1.1: Manual dexterity appropriate for their level
		Competency 1.2: Developing and executing patient care plans appropriate for their level, including management of pain
		Competency 1.3: Managing patients with severe and complex illnesses and with major injuries
		Competency 1.4: Essential content areas of: the abdomen and its contents; the alimentary tract; skin, soft tissues, and breast; endocrine surgery; head and neck surgery; pediatric surgery; surgical critical care; surgical oncology; trauma and non-operative trauma; and the vascular system
		Competency 1.5: Managing general surgical conditions arising in transplant patients
		Competency 2.1: Critical evaluation of pertinent scientific information
		Competency 2.2: Fundamentals of basic science as applied to clinical surgery
		Competency 2.3: Applied surgical anatomy and surgical pathology
		Competency 2.4: Elements of wound healing
		Competency 2.5: Homeostasis, shock, and circulatory physiology
		Competency 2.6: Hematologic disorders
		Competency 2.7: Immunobiology and transplantation
Competency 2.8: Oncology		
Competency 2.9: Surgical endocrinology		

	<p>respects each patient's individuality, culture, and autonomy in making health care decisions (Ethical, Social, and professional accountability and responsibility)</p> <ul style="list-style-type: none"> • Possess interpersonal and communication skills to effectively present ideas using different methods, including information and communication technology (Communication) 	Competency 2.10: Surgical nutrition, and fluid and electrolyte balance
		Competency 2.11: Metabolic response to injury
		Competency 2.12: Burn physiology and initial burn management
		Competency 4.1: Communicate effectively with patients, families, and the public, as appropriate, across a broad range of socioeconomic and cultural backgrounds
		Competency 4.2: Communicate effectively with physicians, other health professionals, and health-related agencies
		Competency 4.3: Work effectively as a member or leader of a health care team or other professional group
		Competency 4.4: Act in a consultative role to other physicians and health professionals
		Competency 4.5: Maintain comprehensive, timely, and legible medical records
		Competency 5.1: Compassion, integrity, and respect for others
		Competency 5.2: Responsiveness to patient needs that supersedes self-interest
		Competency 5.3: Respect for patient privacy and autonomy
		Competency 5.4: Accountability to patients, society and the profession
		Competency 5.5: Sensitivity and responsiveness to a diverse patient population, including to diversity in gender, age, culture, race, religion, disabilities, and sexual orientation
		Competency 5.6: High standards of ethical behavior
Competency 5.7: Commitment to continuous patient care		
Critical thinking	<ul style="list-style-type: none"> • Apply critical thinking and evidence-based practice when caring for patients and their families (Scholarship/Research and inquiry) • Efficiently search for and locate evidence that is relevant and reliable to support care decisions, inform practice, and advance knowledge (Lifelong learning/Information literacy) • Demonstrate critical thinking (Professional practice and quality health care) 	Competency 3.4: Systematically analyze practice using quality improvement methods, and implement changes with the goal of practice improvement
		Competency 3.5: Incorporate formative evaluation feedback into daily practice
		Competency 3.6: Locate, appraise, and assimilate evidence from scientific studies related to their patients' health problems
		Competency 3.7: Use information technology to optimize learning

	<ul style="list-style-type: none"> • Apply knowledge and skills effectively in clinical practice, population health, and research (Professional practice and quality health care) 	<p>Competency 3.8: Participate in the education of patients, families, students, residents and other health professionals</p> <p>Competency 3.9: Participate in morbidity and mortality conferences that evaluate and analyze patient care outcomes</p> <p>Competency 3.10: Utilize an evidence-based approach to patient care</p>
Leadership	<ul style="list-style-type: none"> • Solicit feedback, demonstrate receptiveness to feedback, and implement change (Personal and intellectual autonomy) • Demonstrate effective communication with patients, their families, and with interdisciplinary team members to optimize patient care and provide coordinated care (Communication) • Demonstrate respect for and work effectively with all members of an interdisciplinary team (Collaboration/Leadership and teamwork) • Demonstrate professional practice in leadership, interdisciplinary teamwork, and patient care (Collaboration/Leadership and teamwork) 	<p>Competency 4.1: Communicate effectively with patients, families, and the public, as appropriate, across a broad range of socioeconomic and cultural backgrounds</p> <p>Competency 4.2: Communicate effectively with physicians, other health professionals, and health-related agencies</p> <p>Competency 4.3: Work effectively as a member or leader of a health care team or other professional group</p> <p>Competency 4.4: Act in a consultative role to other physicians and health professionals</p> <p>Competency 4.5: Maintain comprehensive, timely, and legible medical records</p> <p>Competency 4.6: Counsel and educate patients and their families</p> <p>Competency 4.7: Effectively document practice activities</p>
Entrepreneurial Mindset	<ul style="list-style-type: none"> • Demonstrate pro-active learning, innovation, and an enthusiasm for life-long learning (Lifelong learning/Information literacy) • Recognize the importance of 	<p>Competency 3.1: Identify strengths, deficiencies, and limits in one's knowledge and expertise</p> <p>Competency 3.2: Set learning and improvement goals</p> <p>Competency 4.1: Communicate effectively with patients, families, and the public, as appropriate, across a broad range of socioeconomic and cultural backgrounds</p>

	<p>communication for learning, patient care, and interdisciplinary collaboration (Communication)</p> <ul style="list-style-type: none"> • Demonstrate enthusiasm and proficiency in management of time and the promotion of learning for others (Collaboration/Leadership and teamwork) 	<p>Competency 4.2: Communicate effectively with physicians, other health professionals, and health-related agencies</p>
<p>National Pride and Global Awareness</p>	<p>- Develop a personal and professional sense of responsibility to contribute to local, national, and global communities (Ethical, Social, and professional accountability and responsibility)</p>	<p>Competency 6.6: Participate in identifying system errors and implementing potential systems solutions.</p> <p>Competency 6.7: Practice high-quality, cost-effective patient care</p> <p>Competency 6.8: Demonstrate knowledge of risk-benefit analysis</p> <p>Competency 6.1 : Work effectively in various health care delivery settings and systems relevant to their clinical specialty</p> <p>Competency 6.2: Coordinate patient care within the health care system relevant to their clinical specialty</p> <p>Competency 6.3: Incorporate considerations of cost awareness and risk-benefit analysis in patient and/or population-based care as appropriate</p> <p>Competency 6.4: Advocate for quality patient care and optimal patient care systems</p> <p>Competency 6.5: Work in inter-professional teams to enhance patient safety and improve patient care quality</p> <p>Competency 6.6: Participate in identifying system errors and implementing potential systems solutions.</p> <p>Competency 6.7: Practice high-quality, cost-effective patient care</p> <p>Competency 6.8: Demonstrate knowledge of risk-benefit analysis</p> <p>Competency 6.9: Demonstrate an understanding of the roles of different specialists and other health care professionals in overall patient management.</p>

Appendix 4: Comparison of Competency Standards

COMPARISON BETWEEN VUHS CORE COMPETENCIES AND THOSE OF MOH-ACGME (USA)			
CHS	MINISTRY OF HEALTH (VIETNAM)	Accreditation Council for Medical Education (ACGME-I)	CANMEDS 2015 Physician Competency Framework (CANADA)
Domain 1. PROFESSIONALISM	NO COMPETENCY REQUIRED FOR RESIDENTS	Domain 1. PROFESSIONALISM	Domain 1. PROFESSIONAL
Residents must demonstrate a commitment to carrying out professional responsibilities and an adherence to ethical principles.		Residents must demonstrate a commitment to carrying out professional responsibilities and an adherence to ethical principles.	As Medical Experts, physicians integrate all of the CanMEDS Roles, applying medical knowledge, clinical skills, and professional values in their provision of high-quality and safe patient-centred care. Medical Expert is the central physician Role in the CanMEDS Framework and defines the physician's clinical scope of practice.
Domain 2. MEDICAL KNOWLEDGE		Domain 2. MEDICAL KNOWLEDGE	Domain 2. MEDICAL EXPERT
Residents must demonstrate knowledge of established and evolving biomedical, clinical, epidemiological, and social - behavioral sciences, as well as the application of this knowledge to patient care.		Residents must demonstrate knowledge of established and evolving biomedical, clinical, epidemiological, and social - behavioral sciences, as well as the application of this knowledge to patient care.	
Domain 3. PATIENT CARE		Domain 3. PATIENT CARE	Domain 3. COMMUNICATOR
Residents must be able to provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health.		Residents must be able to provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health.	As Communicators, physicians form relationships with patients and their families that facilitate the gathering and sharing of essential information for effective health care.

Domain 4. INTERPERSONAL AND COMMUNICATION SKILLS	Domain 4. INTERPERSONAL AND COMMUNICATION SKILLS	Domain 4. COLLABORATOR
Residents must demonstrate interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families and health professionals.	Residents must demonstrate interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families and health professionals.	As Collaborators, physicians work effectively with other health care professionals to provide safe, high-quality, patient-centred care.
Domain 5. PRACTICE- BASED LEARNING AND IMPROVEMENT	Domain 5. PRACTICE- BASED LEARNING AND IMPROVEMENT	Domain 5: SCHOLAR
Residents must demonstrate the ability to investigate and evaluate their care of patient, to appraise and assimilate scientific evidence, and to continuously improve patient care based on constant self-evaluation and life-long learning.	Residents must the ability to investigate and evaluate their care of patient, to appraise and assimilate scientific evidence, and to continuously improve patient care based on constant self-evaluation and life-long learning.	As Scholars, physicians demonstrate a lifelong commitment to excellence in practice through continuous learning and by teaching others, evaluating evidence, and contributing to scholarship.
Domain 6. SYSTEMS-BASED PRACTICE	Domain 6. SYSTEMS-BASED PRACTICE	Domain 6: LEADER
Residents must demonstrate an awareness of and responsiveness to the larger context and system of health care, as well as the ability to call effectively on other resources in the system to provide optimal health care.	Residents must demonstrate an awareness of and responsiveness to the larger context and system of health care, as well as the ability to call effectively on other resources in the system to provide optimal health care.	As Leaders, physicians engage with others to contribute to a vision of a high-quality health care system and take responsibility for the delivery of excellent patient care through their activities as clinicians, administrators, scholars, or teachers. a

	Domain 7: HEALTH AVOCADOR
	As Health Advocates, physicians contribute their expertise and influence as they work with communities or patient populations to improve health. They work with those they serve to determine and understand needs, speak on behalf of others when required, and support the mobilization of resources to effect change.