

# **Curriculum Development Project for CVS Module**

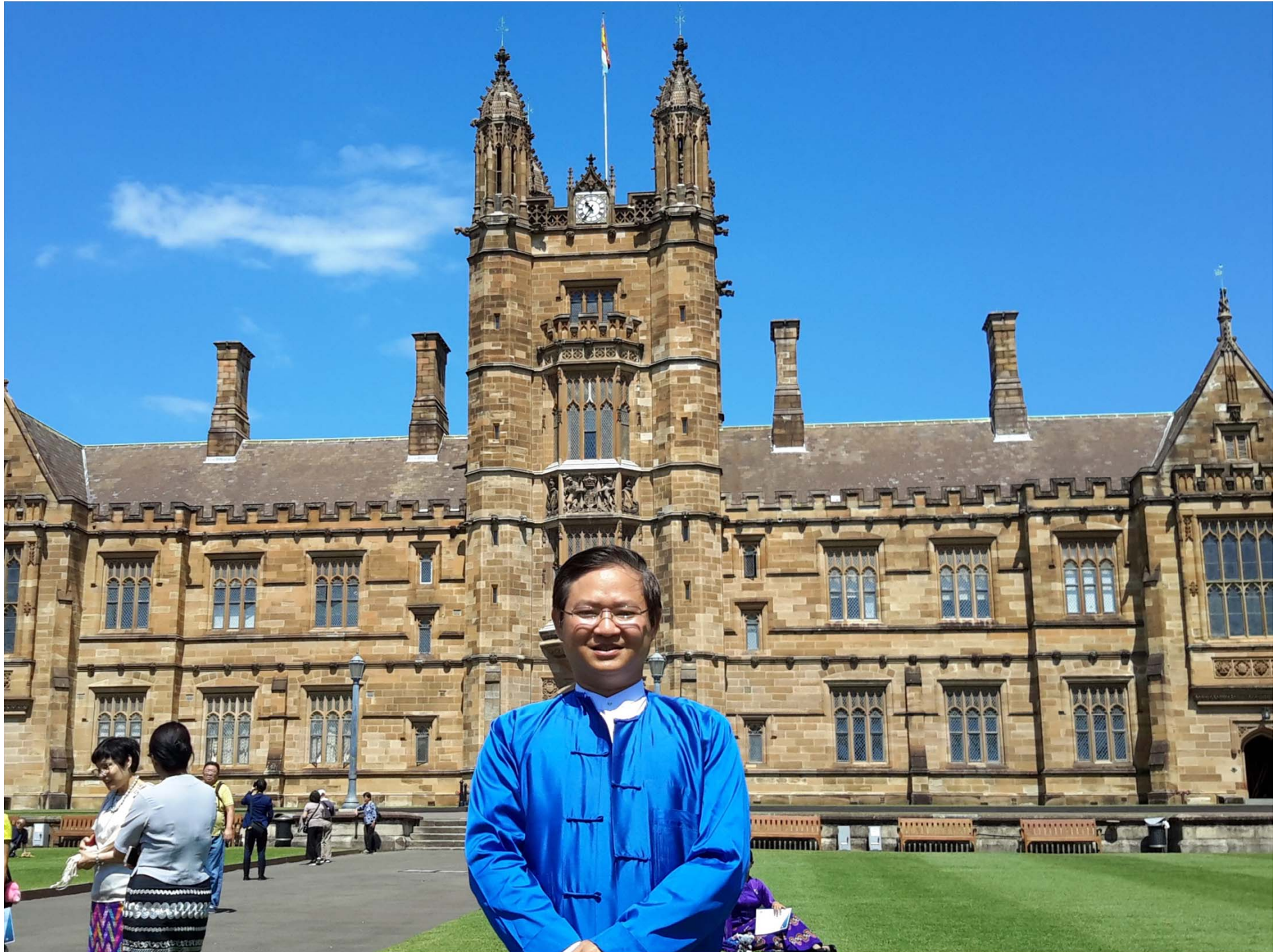
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**Professor/Head**

**Department of Pathology**

**UMMG**





Throughout our lives we're taught important lessons. We learn how to talk, to write, even how to behave. But there's one important lesson most of us never get – a lesson in unlearning. It's only by challenging the established, questioning the accepted and being brave enough to break down old rules, that we can write new ones. That's why we've been doing some unlearning of our own. We've reimagined the way we teach, so our students can reimagine the world.

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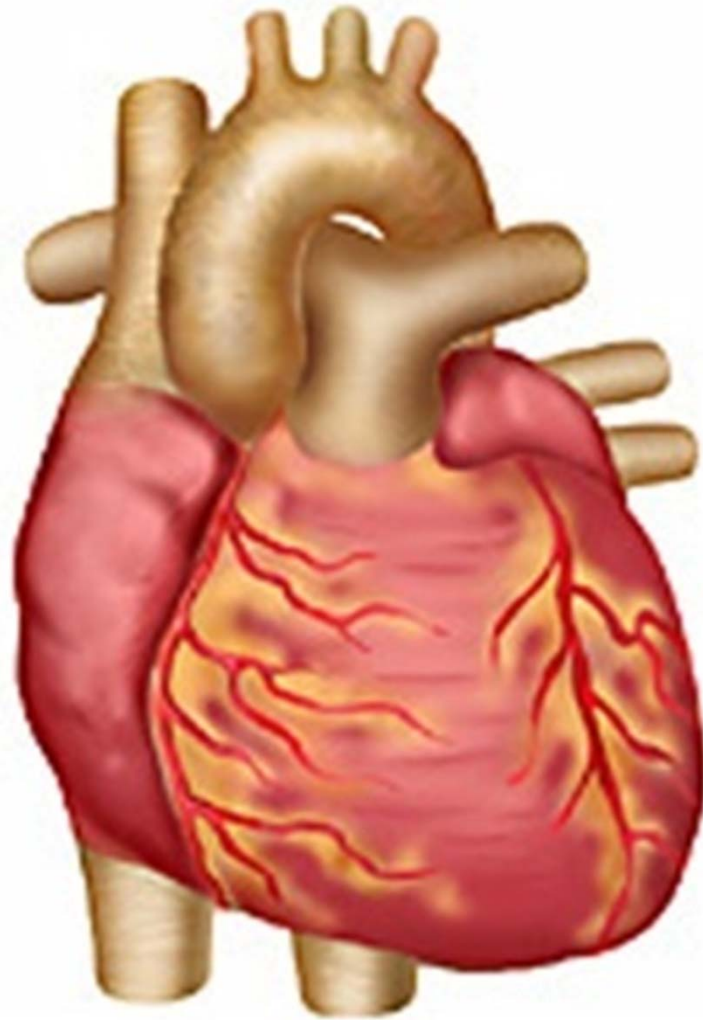








# CVS module for year 1



# **General Learning Outcomes for Year 1**

**At the end of year 1, the stds should be able to**

- describe the anatomy and histology of the organs of the systems**
- describe the pathophysiology of the common diseases of the systems**
- correlate basic science knowledge with clinical signs and symptoms**

# **General learning Outcomes for Year 1**

**At the end of year 1, the stds should be able to**

- demonstrate clinical skills correctly**
- demonstrate proper history taking with the subject provided**
- communicate efficiently with patients and colleagues**

# **Core clinical problems for cardiovascular system**

- 1. High blood pressure**
- 2. Shock/hypotension**
- 3. Palpitation**
- 4. Dyspnea**
- 5. Chest pain**

# **Learning Outcomes for CVS Module**

**At the end of CVS Module, the stds should be able to**

- 1. Describe the structure & the functions of CVS**
- 2. Identify the major parts of the heart and their functions and trace the blood supply**
- 3. Describe cardiac cycle and fetal circulation**



# **Learning Outcomes for CVS Module**

**At the end of CVS Module, the stds should be able to**

**4. Perform the examination of the heart on the basis of anatomical landmarks in living person and experience the heart sound on the living person and from recording**

# **Learning Outcomes for CVS Module**

**At the end of CVS Module, the stds should be able to**

- 5. Interpret normal ECG recording**
- 6. Able to palpate radial pulse and differentiate the abnormal pulse from normal in terms of major characters (volume, rate, rhythm, regularity)**

# **Learning Outcomes for CVS Module**

**At the end of CVS Module, the stds should be able to**

- 7. Explain regulation of blood pressure**
- 8. Measure blood pressure systematically and correctly (in different positions), record it and interpret on the recorded data**

# **Learning Outcomes for CVS Module**

**At the end of CVS Module, the stds should be able to**

- 9. Describe the pathophysiology of hypertension, myocardial infarction, heart failure and shock**
- 10. Identify the normal cardiovascular finding on CXR**

# **Learning Outcomes for CVS Module**

**At the end of CVS Module, the stds should be able to**

**11. Correlate the sign and symptoms of angina, myocardial infarction, heart failure and shock with underlying mechanisms**

# **Learning Outcomes for CVS Module**

**At the end of CVS Module, the stds should be able to**

**12. Describe the drugs used in cardiac problems (hypertensive, shock, MI and heart failure) based on the mechanisms of the drugs.**

# **Learning Outcomes for CVS Module**

**At the end of CVS Module, the stds should be able to**

**13. Describe the role of lipoproteins in atherosclerosis**

**14. Interpret the provided lipid profile data**

# **Learning Outcomes for CVS Module**

**At the end of CVS Module, the stds should be able to**

**15. Enumerate the biochemical markers of myocardial infarction according to the duration of attack of MI**



# **Learning Outcomes for CVS Module**

**At the end of CVS Module, the stds should be able to**

**16. Describe the relationship between life style, diet, smoking and exercise on cardiovascular diseases**

# **Learning Outcomes for CVS Module**

**At the end of CVS Module, the stds should be able to**

**17. Apply the principles of communication in explaining the life style changes and risk of ischemic heart disease to patients**





# **Contents for CVS Module**

- 1. High blood pressure**
- 2. Shock/hypotension**
- 3. Palpitation**
- 4. Dyspnea**
- 5. Chest pain**

# High Blood Pressure

- **Normal structure and function of CVS: Arterial and venous system, regulation of BP and measurement of BP and JVP.**
- **High blood pressure : pathophysiology and organ changes of essential hypertension**
- **Clinical signs and symptoms of high BP**
- **CXR (related to CVS diseases)**
- **Antihypertensive drugs**

# Shock/hypotension

- **Pathophysiology and organ changes of shock**
- **Causes of shock**
- **Clinical signs and symptoms of shock**
- **Drugs used in treatment of shock**

# Palpitation

- **Normal structure and function: normal conduction system and regulation of HR**
- **Causes of palpitation**
- **Normal ECG**



# Dyspnea

- **Causes, pathophysiology and organ changes of heart failure - hypertension, IHD, RHD and congenital heart diseases**
- **Clinical signs and symptoms of heart failure**
- **Drugs used in heart failure**

# Chest Pain

- **Normal structure and function of CVS: blood supply of heart, regulation of myocardial blood flow, normal energy metabolism of cardiac muscles, enzymes and protein markers in cardiac disease**
- **Pathogenesis of atheroma formation and ischemic heart disease including risk factors**

# Chest Pain

- **Clinical signs & symptoms of IHD**
- **Basic communication skill in explaining the risk factors of ischaemic heart diseases to the patients**
- **Drugs used in ischemic heart disease**







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**CANNBERRA'S HIGHEST POSTING BOX**

This street posting box is vintage 1912-1913, and is probably the first type made for use Australia-wide after Federation (1901). It has been provided by courtesy of the NSW Historical Section of Australia Post. Mail posted in this box will be cleared by the Management of Telecom Tower at 10 am Monday to Friday, and postmarked with the "Telecom Tower" postmark.

**Content and learning  
teaching methods  
for CVS module**



Academic Year	Semester 1		Semester 2		
Year 1 (Block A)	<b>Cardiovascular Module (8 wk)</b>	<b>Respiratory Module</b>	<b>GI, Nutrition and Hepatobiliary Module</b>	<b>Hematology and Immunology module</b>	<b>Summative Assessment</b>
	<b>Clinical Management</b>				
	<b>Medical Ethics and Professionalism</b>				
	<b>Community and Family Health</b>				
	<b>Research Culture and skill</b>				
	<b>Social and Behavior Science</b>				

# Core clinical problems for year 1 medical students in CVS

- **Hypertension**
- **Hypotension**
- **Chest pain**
- **Dyspnoea**
- **Palpitation**

2019	Year-1, CVS module (Week-1 Hypertension)				
	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
5:00 AM	<b>TBL followed by PBL and group discussions</b>	<b>Normal structure and function of the heart and vessels</b>	Anatomy 3 sections rotating	<b>Clinical Teaching: aetiology, clinical signs &amp; symptoms of hypertension</b>	<b>Hospital-based bedside teaching</b>
5:15 AM			<b>Cardiac cycle and regulation of blood pressure</b>		
5:30 AM				<b>pathophysiology and organ changes of essential hypertension</b>	
5:45 AM		<b>Pharmacology of antihypertensive drugs</b>			
10:00 AM					
10:15 AM					
10:30 AM					
10:45 AM					
11:00 AM					
11:15 AM	<b>Lunch Break</b>				
11:30 AM					
11:45 AM					
12:00 PM					
12:15 PM					
12:30 PM	<b>Seminar / presentations (global health/life style modifications/ NCD/ metabolic syndrome, PPD, etc)</b>	<b>Discussions (small groups)</b>	Histology, histopathology, pathology (museum pots)	<b>Small group teaching session</b>	<b>Clinical Seminar</b>
12:45 PM			<b>CXR (related to CVS)</b>		
1:00 PM		<b>Practical (Physical examination, pulse BP)</b>			
1:15 PM					
1:30 PM					
1:45 PM					
2:00 PM					
2:15 PM					
2:30 PM					
2:45 PM					
3:00 PM					
3:15 PM					
3:30 PM					
3:45 PM					
4:00 PM					



# **Faculty training programme**

# **Vision of Faculty Development**

**To produce ethically minded, committed and technically competent faculty members who can efficiently perform in different health institutions of the country**

# **Missions of “ Faculty Development Unit”**

- **To provide “continuous faculty development programs” for developing competency of faculty members**
- **To improve performance of faculty members in teaching, administrative , clinical and research skills**

# **Missions of “ Faculty Development Unit”**

- **To develop cadre of professional and competent teachers, educators, researchers and leaders**
- **To coordinate for collaboration across medical disciplines**



# Faculty Development Committee

- **Rector**
- **Prorector (Academic)**
- **Representatives of Clinical Teaching Departments**
- **Representatives of Basic Science Departments**
- **Module coordinators**
- **Representatives of MEU**

<b>Jan</b>	<b>Orientation training</b>
<b>Feb</b>	<b>Professionalism &amp; ethics</b>
<b>March</b>	
<b>April</b>	<b>Peer teacher training</b>
<b>May</b>	<b>Clinical teaching training</b>
<b>June</b>	<b>Training for assessment</b>
<b>July</b>	<b>Leadership</b>
<b>August</b>	<b>Research</b>
<b>Sep</b>	<b>English language course</b>
<b>Oct</b>	<b>IT training</b>
<b>Nov</b>	<b>Teaching learning methodology</b>
<b>Dec</b>	

**Thank you.**