

### 3.2.2.3 Recommended Semester Schedule

The recommended semester schedule for direct entry Chemical Engineering students is presented in Table 3.2.2c.

**Table 3.2.2c: Recommended Semester Schedule for Direct Entry ChE Students**

<b>Modules</b>	<b>MCs</b>	<b>Modules</b>	<b>MCs</b>
<b>Semester 1</b>		<b>Semester 2</b>	
CN1101A Chemical Engineering Principles and Practice I	4	CN2102 Chemical Engineering Principles and Practice II	4
MA1511 Engineering Calculus	2	CN2101 Material and Energy Balances	3
MA1512 Differential Equations for Engineering	2	MA1513 Linear Algebra with Differential Equations	2
EG1311 Design and Make	4	MLE1010 Materials Engineering Principles and Practice	4
GE on QR	4	CS1010E Programming Methodology	4
UEM - 1	4	GE on T&E	4
<b>Sub-total</b>	<b>20</b>	<b>Sub-total</b>	<b>21</b>
<b>Semester 3</b>		<b>Semester 4</b>	
CN2121 Chemical Engineering Thermodynamics	4	CN2125 Heat and Mass Transfer	4
CN2122A Fluid Mechanics	4	CN2116 Chemical Kinetics and Reactor Design	4
ES1531 Critical Thinking & Writing <sup>1</sup>	4	CN3124A Fluid-Particle Systems	4
IE2141 Systems Thinking and Dynamics	4	EE2211 Introduction to Machine Learning	4
GE on SS	4	EG2401A Engineering Professionalism	2

GE on AQ	4	GE on HC	4
<b>Sub-total</b>	<b>24</b>	<b>Sub-total</b>	<b>22</b>
<b>Semester 5</b>		<b>Semester 6<sup>#</sup></b>	
CN3101 Chemical Engineering Lab	4	CN4122 Process Synthesis and Simulation	3
CN3121 Process Dynamics and Control	4	Pathway Requirement - 1	4
CN3132 Separation Processes	4	UEM - 3	4
CN3135 Process Safety, Health & Environment	3	UEM - 4	4
CN3421A Process Modelling and Numerical Simulation	3	UEM - 5	4
UEM - 2	4	UEM - 6	4
<b>Sub-total</b>	<b>22</b>	<b>Sub-total</b>	<b>23</b>
<b>Semester 7<sup>#</sup></b>		<b>Semester 8</b>	
EG3611A Industrial Attachment	10	CN4123R Final Year Design Project	6
		Pathway Requirement - 2	4
		UEM - 7	4
		UEM - 8	4
<b>Sub-total</b>	<b>10</b>	<b>Sub-total</b>	<b>18</b>

<sup>1</sup>Students who score a Band 1 or Band 2 in Qualifying English Test (QET) will need to take ES1103 English for Academic Purposes (4MC) before taking ES1531 Critical Thinking & Writing. ES1103 will be counted as 1 UEM

<sup>#</sup>Modules scheduled in Semesters 6 and 7 can be swapped, thus students can also choose to go on IA Industrial Attachment in Semester 6.