

**Curriculum for Bachelor of Engineering  
(Software and Knowledge Engineering)**

(Software Engineering)

**First Year**

**First Semester**

---

		<b>Credits (Lect - Lab)</b>
204111	Computers and Programming	3 (2-3)
204112	Information Technology for Engineers	1 (0-2)
417167	Engineering Mathematics I	4 (4-0)
420111	General Physics I	3 (3-0)
420113	Laboratory in Physics I	1 (0-3)
999021	Thai Language for Communication	3 (3-0)
175xxx	Physical Education Activities	1 (0-2)
355xxx	English	<u>3 (3-0)</u>
		<u>19 (15-10)</u>

**Second Semester**

---

		<b>Credits (Lect - Lab)</b>
204214	Programming Skill Development Laboratory	1 (0-3)
208111	Engineering Drawing	3 (2-3)
403111	General Chemistry	4 (4-0)
403112	Laboratory in General Chemistry	1 (0-3)
417168	Engineering Mathematics II	3 (3-0)
420112	General Physics II	3 (3-0)
420114	Laboratory in Physics II	1 (0-3)
175xxx	Physical Education Activities	1 (0-2)
355xxx	English	<u>3 (3-0)</u>
		<u>20 (15-14)</u>

**Curriculum for Bachelor of Engineering  
(Software and Knowledge Engineering)**

(Software Engineering)

**Second Year**

**First Semester** 

---

		<b>Credits (Lect - Lab)</b>
204211	Discrete Mathematics	3 (3-0)
204212	Abstract Data Types and Problem Solving	3 (3-0)
208201	Basic Principle in Engineering Mechanics	3 (3-0)
219211	Software Development Training Camp	1 (0-3)
219241	Object-Oriented Modeling and Programming	3 (3-0)
417267	Engineering Mathematics III	3 (3-0)
355XXX	English	3 (3-0)
999xxx	Science and Mathematics	<u>3 (3-0)</u>
		<u>22 (21-3)</u>

**Second Semester** 

---

		<b>Credits (Lect - Lab)</b>
204313	Algorithm Design and Analysis	3 (3-0)
204352	Laws and Ethics in Information Technology	3 (3-0)
213211	Materials Science for Engineers	3 (3-0)
219212	Programming Languages	3 (3-0)
219221	Computer Organization and Architecture	3 (3-0)
999xxx	Social Sciences	3 (3-0)
999xxx	Humanities	<u>3 (3-0)</u>
		<u>21 (21-0)</u>

**Curriculum for Bachelor of Engineering  
(Software and Knowledge Engineering)**

(Software Engineering)

**Third Year**

**First Semester** 

---

		<b>Credits (Lect - Lab)</b>
204351	Database Systems	3 (3-0)
219311	Operating Systems for Software and Knowledge Engineer	3 (3-0)
219324	Data Communication and Computer Networks for Software and Knowledge Engineer	3 (3-0)
219341	Software Specification and Design	3 (3-0)
219342	Software Process and Quality Assurance	3 (3-0)
	Technical Electives	<u>3 (-)</u>
		<u>18 (-)</u>

**Second Semester** 

---

		<b>Credits (Lect - Lab)</b>
219331	Knowledge Management	3 (3-0)
219343	Software Validation and Verification	3 (3-0)
219344	Computer System Project Management	3 (3-0)
219345	Software and Knowledge Engineering Economics	3 (3-0)
	Technical Electives	<u>6 (-)</u>
		<u>18 (-)</u>

**Curriculum for Bachelor of Engineering  
(Software and Knowledge Engineering)**

(Software Engineering)

**Fourth Year**

**First Semester** \_\_\_\_\_

		Credits (Lect - Lab)
219490	Co-operative Education	9
		<u>9 (-)</u>

**Second Semester** \_\_\_\_\_

		Credits (Lect - Lab)
219497	Seminar	1
219499	Software and Knowledge Engineering Workgroup Project	3 (3-0)
	Technical Electives	6 (-)
	Free Electives	<u>6 (-)</u>
		<u>16 (-)</u>