

# Student Exchange Programme

**University SEP Website:**

<http://www.nus.edu.sg/iro/sep/out/index.html>

**Faculty SEP Website:**

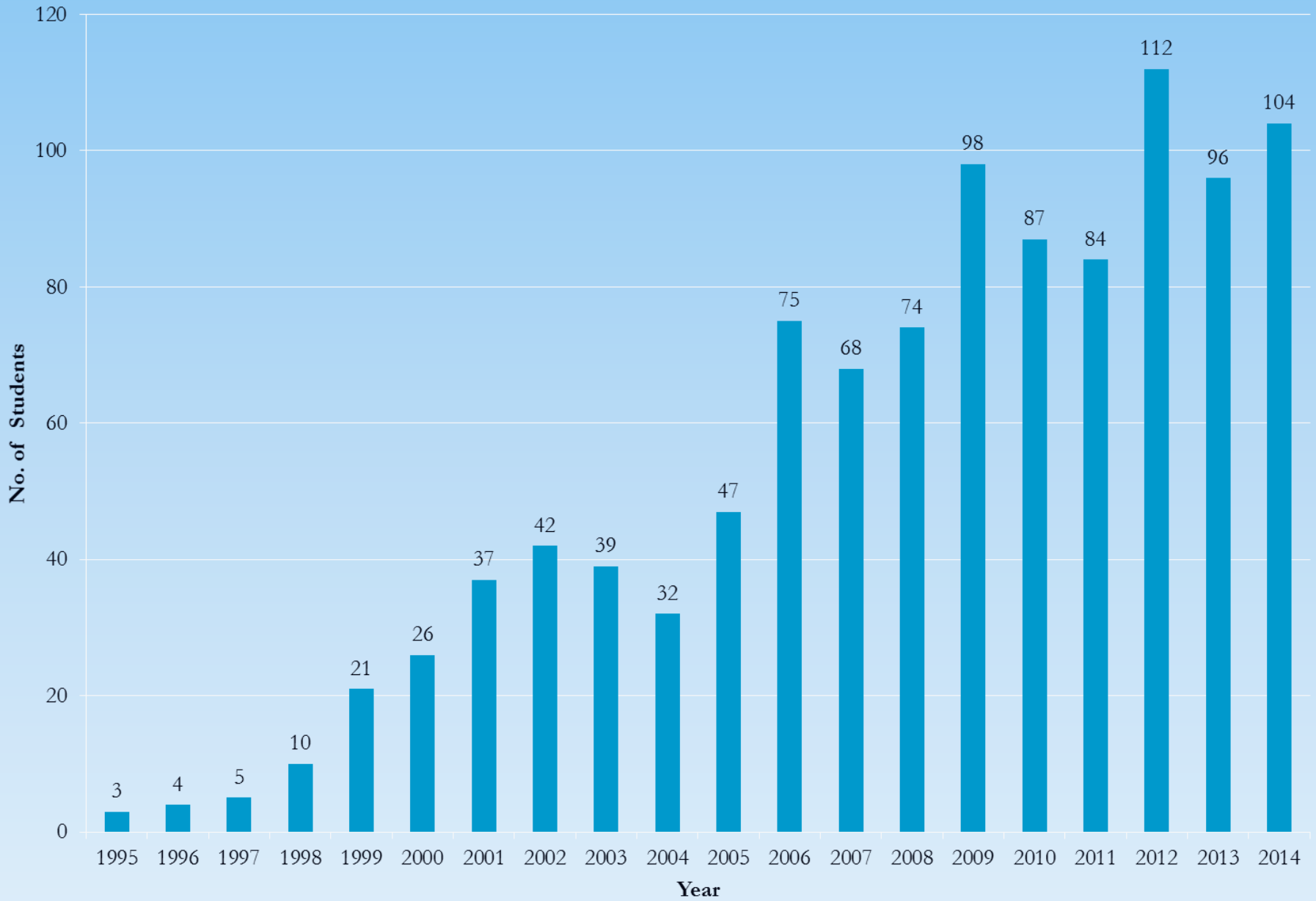
<http://www.eng.nus.edu.sg/sep/index.html>

**ME Dept SEP Website:**

<http://me.nus.edu.sg/current-students/enhancement-special-programmes/student-exchange-programme/>

**By A/Prof S.K. Ong**

### SEP Outgoing Students (ME Dept)



# SEP Timeline & Processes AY1617

- Mandatory Internship Periods

Programme	Year 1	Year 2			Year 3			Year 4	
		Sem 1	Sem 2	Special term	Sem 1	Sem 2	Special term	Sem 1	Sem 2
<b>Mechanical Engineering</b>					IA	IA			
<b>Design Centric Program</b>						IA		IA	

IA is optional for Double Degree Programmes (DDP), Concurrent Degree Programmes (CDP), NUS Overseas Colleges (NOC), Global Engineering Programme (GEP) and Chemical Science Program (CSP).

- SEP: Students generally embark for SEP only in Year 3 of studies (Sem 5 or 6). Students are not allowed to go for their SEP in Year 4.

Year 3	Sem 5		Sem 6		Sem 7
<b>ME</b>	IA	SEP	IA	SEP	
<b>DCP</b>			IA	SEP	IA

- Faculty SEP Student Applications

	Process	Timeline
Round 1 (applications for Sem 5, 6 and full year)	Application period Department Interview OUP Selection by 50% CAP +50% Interview rating	End September / Early October – End October  Early November (Reading week 14 Nov – 20 Nov) All interview results submitted *By end November Offer & student acceptance *By end December
Round 2 (*applications for Sem 6 only)	Application period Department Interview / OUP Interview OUP Selection by 50% CAP +50% Interview rating	Mid January – End January/Early February *Interviews held By mid February (students who were not interviewed at Round 1) Offer & student acceptance By March
Round 3 etc	Application period Clear leftover places	Early April – End April or May

Note: USP application will start and end in February (one month designated)

### Changes to Note

- Round 1 for SEP will conclude **in December**.
- Students should be aware and contactable by email during this period for the SEP allocation results.
- All students who had applied to SEP will know which semester they will embark for SEP by December.
- This will give students sufficient time to make preparations for their IA.
- Students to be informed of their allocated IA semester by the first week of January
- IA/VIP student registration Round 1 begins in early February.

- Some PUs academic calendar may not fit exactly into NUS' academic calendar. See tables below and next slide.
- Onus on students to check websites of Pus to confirm details.
- Students are encouraged not to go to PUs whose academic calendar will clash with NUS.

German PUs	Sem 5 (Winter Semester)	Sem 6 (Summer Semester)	Remarks
<a href="#">Technical University of Darmstadt</a>	Middle of October to Middle of February	Middle of April to Middle of July	About 10 students yearly
<a href="#">Technical University of Munich</a>	Early October to Late March	Early April to Late September	*We send about 20 students there yearly. For AY15/16, 20 students in Sem 2
<a href="#">University of Karlsruhe</a>	Middle of October to Middle of February	Middle of April to Middle of July	About 6 students yearly
<a href="#">University of Stuttgart</a>	Middle of October to Middle February	Middle of April to End of July	About 4 students yearly
<a href="#">University of Ulm</a>	1 October – 31 March (Lecture Period usually middle of October to middle of February)	1 April – 30 September (Lecture Period usually middle of April to middle of July)	We send about 1-2 students there yearly
Netherlands PUs	Sem 5	Sem 6	Remarks
<a href="#">Eindhoven University of Technology</a>	September to February	February to August	10 students, in Sem 2 usually
Switzerland PUs	Sem 5	Sem 6	Remarks
<a href="#">University of Lausanne</a>	Early August to Late January	Early February to Late July	About 4 students yearly

United Kingdom PUs	Sem 5 (Winter Semester)	Sem 6 (Summer Semester)	Remarks
<a href="#">The University of Manchester</a>	Mid-September to late January	Late January to early June	About 3 students yearly
<a href="#">The University of Nottingham</a>	Late September to late January	Late January to late June	About 4 students yearly
<a href="#">The University of Sheffield</a>	Mid-September to Early February	Early February to Mid-June	About 4 students yearly
<a href="#">University of Leeds</a>	Mid-September to late January	Late January to mid-June	About 4 students yearly
<a href="#">University of Southampton</a>	Late September to late January	Late January to mid-June	About 2 students yearly
Other European PUs	Sem 5 (Winter Semester)	Sem 6 (Summer Semester)	Remarks
<a href="#">University of Innsbruck</a>	October to February	February to July	maybe 1 student
<a href="#">University of Antwerp</a>	Middle of September - End of January	Beginning of February - End of June	maybe 1- 2 student
<a href="#">University of Zagreb</a>	Early October - Late February	Late February - Early July	1-2 students
<a href="#">Aarhus University</a>	End August to Late January	Early February to Late June	4 students
<a href="#">Tallinn University of Technology</a>	Late August to late January	Late January to mid-June	2 students; usually go out in Sem 2
<a href="#">Technion-Israel Institute of Technology</a>	Mid October to February	Early March to August	2 students
<a href="#">Cracow University of Technology</a>	Early October to mid-February	Mid- February to late June	2 students; usually go out in Sem 2
<a href="#">Warsaw University of Technology</a>	Early October to late January	Mid-February to mid-June	2 students; usually go out in Sem 2

## Sample Semester Schedule for ME students (matriculating from AY14/15 onwards) – Industrial Attachment in Sem 5

Semester 1	MCs	Semester 2	
MA1505 Mathematics I	4	MA1506 Mathematics II	4
PC1431 Physics IE	4	GEK1549 <sup>2</sup> Critical Thinking and Writing (GEM A) <sup>2</sup>	4
CS1010E Programming Methodology	4	EG1108 Electrical Engineering	3
EG1109 Statics and Mechanics of Materials	4	ES2331 Communicating Engineering	4
SS <sup>1</sup>	4	ME2103 Engineering Visualisation and Modelling	3
Sub-total	20	Sub-total	18
Semester 3		Semester 4	
ME2113 Mechanics of Materials I	3	ME2101 Fundamentals of Mechanical Design	4
ME2121 Engineering Thermodynamics	4	ME2114 Mechanics of Materials II	3
ME2151 Principles of Mechanical Engineering Materials	4	ME2135 Fluid Mechanics II	4
ME2134 Fluid Mechanics I	4	ME2143 Sensors and Actuators	4
ME3162 Manufacturing Processes	4	ME3112 Mechanics of Machines	4
GEM B <sup>1</sup>	4	Breadth 1 <sup>1</sup>	4
Sub-total	23	Sub-total	23
Semester 5		Semester 6	
<b>EG3601 Industrial Attachment</b>	<b>12</b>	<b>HR2002 Human Capital in Organizations</b>	<b>3</b>
<b>EG2401 Engineering Professionalism</b>	<b>3</b>	<b>ME2142 Feedback Control Systems</b>	<b>4</b>
<b>ME3122 Heat Transfer</b>	<b>4</b>	<b>ME3103 Mechanical Systems Design</b>	<b>6</b>
		<b>ME Technical Elective 1</b>	<b>4</b>
		<b>Unrestricted Elective Module 1<sup>1</sup></b>	<b>4</b>
<b>Sub-total</b>	<b>19</b>	<b>Sub-total</b>	<b>21</b>
Semester 7		Semester 8	
ME4101A B.Eng. Dissertation	4	ME4101A B.Eng. Dissertation	4
ME Technical Elective 2	4	ME Technical Elective 3	4
Breadth 2 <sup>1</sup>	4	Unrestricted Elective Module 4 <sup>1</sup>	4
Unrestricted Elective Module 2 <sup>1</sup>	4	Unrestricted Elective Module 5 <sup>1</sup>	4
Unrestricted Elective Module 3 <sup>1</sup>	4		
Sub-total	20	Sub-total	16
<b>Total</b>			<b>160</b>

<sup>1</sup>These ULR modules (GEM, SS, UEM, Breadth) can be read in any semester. Breadth modules are strictly modules read outside the student's faculty.

<sup>2</sup>GEK1549 is compulsory and has to be counted towards GEM A requirement. For more details, please refer to the section on English Modules at [http://www.eng.nus.edu.sg/ugrad/MS\\_timetable.html](http://www.eng.nus.edu.sg/ugrad/MS_timetable.html).

Please note that this semester schedule is only a sample, you can customized your own schedule taking into considerations the semester the modules are offered and the pre- and co-requisites of a module.

## Sample Semester Schedule for ME students (matriculating from AY14/15 onwards) – Industrial Attachment in Sem 6

Semester 1	MCs	Semester 2	
MA1505 Mathematics I	4	MA1506 Mathematics II	4
PC1431 Physics IE	4	GEK1549 Critical Thinking and Writing (GEM A) <sup>2</sup>	4
CS1010E Programming Methodology	4	EG1108 Electrical Engineering	3
EG1109 Statics and Mechanics of Materials	4	ES2331 Communicating Engineering	4
SS <sup>1</sup>	4	ME2103 Engineering Visualisation and Modelling	3
Sub-total	20	Sub-total	18
Semester 3		Semester 4	
ME2113 Mechanics of Materials I	3	ME2101 Fundamentals of Mechanical Design	4
ME2121 Engineering Thermodynamics	4	ME2114 Mechanics of Materials II	3
ME2151 Principles of Mechanical Engineering Materials	4	ME2135 Fluid Mechanics II	4
ME2134 Fluid Mechanics I	4	ME2143 Sensors and Actuators	4
ME3162 Manufacturing Processes	4	ME3112 Mechanics of Machines	4
GEM B <sup>1</sup>	4	Breadth 1 <sup>1</sup>	4
Sub-total	23	Sub-total	23
<b>Semester 5</b>		<b>Semester 6</b>	
<b>HR2002 Human Capital in Organizations</b>	<b>3</b>	<b>EG3601 Industrial Attachment</b>	<b>12</b>
<b>ME3103 Mechanical Systems Design</b>	<b>6</b>	<b>EG2401 Engineering Professionalism</b>	<b>3</b>
<b>ME3122 Heat Transfer</b>	<b>4</b>	<b>ME2142 Feedback Control Systems</b>	<b>4</b>
<b>ME Technical Elective 1</b>	<b>4</b>		
<b>Unrestricted Elective Module 1<sup>1</sup></b>	<b>4</b>		
<b>Sub-total</b>	<b>21</b>	<b>Sub-total</b>	<b>19</b>
Semester 7		Semester 8	
ME4101A B.Eng. Dissertation	4	ME4101A B.Eng. Dissertation	4
Breadth <sup>1</sup>	4	ME Technical Elective 3	4
ME Technical Elective 2	4	Unrestricted Elective Module 4 <sup>1</sup>	4
Unrestricted Elective Module 2 <sup>1</sup>	4	Unrestricted Elective Module 5 <sup>1</sup>	4
Unrestricted Elective Module 3 <sup>1</sup>	4		
Sub-total	20	Sub-total	16
Total			160



## Sample Semester Schedule for Accredited Poly Direct Entry ME students (matriculating in AY15/16)

Year 2					
Semester 3		MCs	Semester 4		MCs
MA1301	Introductory Mathematics <sup>1</sup>	4	MA1505	Mathematics I	4
PC1431	Physics IE	4	ME2101	Fundamentals of Mechanical Design	4
ME2151	Principles of Mechanical Engineering Materials	4	ME2103	Engineering Visualisation and Modelling	3
ME2113	Mechanics of Materials I	3	ME2143	Sensors and Actuators	4
GER1000	Quantitative Reasoning ( <b>GE 1</b> - QR)	4	ME2114	Mechanics of Materials II	3
ES1xxx	English <sup>4</sup>	-	GET1021	Critical Thinking and Writing ( <b>GE 2</b> – T&E) <sup>3</sup>	4
Sub-Total		19	Sub-Total		22
Year 3					
Semester 5		MCs	Semester 6		MCs
MA1506	Mathematics II	4	EG2401	Engineering Professionalism	3
ME2121	Engineering Thermodynamics	4	ME2135	Fluid Mechanics II	4
ME2142	Feedback Control Systems	4	ME3103	Mechanical Systems Design	6
ME2134	Fluid Mechanics I	4	ME3112	Mechanics of Machines	4
ME3162	Manufacturing Processes	4	GE 3 <sup>2</sup>		4
Sub-Total		20	Sub-Total		21
Year 4					
Semester 7		MCs	Semester 8		MCs
ME4101A	B.Eng. Dissertation	4	ME4101A	B.Eng. Dissertation (cont'd)	4
ME3122	Heat Transfer	4	ME Technical Elective 3		4
ME Technical Elective 1		4	Free Elective 2 <sup>2</sup>		4
ME Technical Elective 2		4	Free Elective 3 <sup>2</sup>		4
GE 4 <sup>2</sup>		4	GE 5 <sup>2</sup>		4
Sub-Total		20	Sub-Total		20
Total					122

<sup>1</sup>MA1301 will be counted towards Free Elective.

<sup>2</sup>These modules (GE, Free Electives) can be read in any semester.

<sup>3</sup> GET1021 is to be counted towards GE (T&E) requirement. For more details, please refer to the section on English Modules at [http://www.eng.nus.edu.sg/ugrad/MS\\_timetable.html](http://www.eng.nus.edu.sg/ugrad/MS_timetable.html).

<sup>4</sup>Either ES1000 and/or ES1102 depending on the results of your QET and decided by CELC.

Please note that this semester schedule is only a sample, you can customized your own schedule taking into considerations the semester the modules are offered and the pre- and co-requisites of a module.

# Purpose of SEP and Place Allocations

## **Purpose of SEP**

- To live, study and learn in a new environment
- To experience new cultures
- To establish networking in foreign countries

## **SEP Place Allocations and Process**

- Selection is based on 50% CAP + 50% interview rating.
- SEP Process in the following stages:

### **Stage 1:**

- Application, Interviews, and accept/reject offers
- Module mapping online application, and study plans submission to ME Dept for endorsement
- Study plans, supporting documents, and partner university application form submission to Dean's office & Registrar's office for endorsement

### **Stage 2:**

- Partner universities' documents submission for evaluation and acceptance

### **Stage 3:**

- Apply visa and book flight

# SEP Related Issues

- **Do not withdraw after accepting the offer in Overseas Programmes Application System (OPAS). Penalty of S\$300 will be imposed for withdrawal of SEP.**
  
- **Selection of Modules & Modules Mapping:**
  - Min. & Max. MCs to be read in 1 Sem is **18** and **25**. Do not overload yourself.
  - Min. number of programme requirement modules (faculty requirements and major requirements) to be taken in each semester during SEP is 2.
  - Either Year 3 or Year 4 modules: 5 Core modules, 3 Technical Electives (TE), 3 Unrestricted Elective Modules (UEM), EG modules, General Education Modules (GEM)<sup>1</sup>, University Level Requirement (ULR) Breadth Modules<sup>2</sup>.
  - Students going for year long SEP can map up to 10 Core modules, 3 TEs, 3 UEMs and 3 Free Electives (for those students who do not need to do compulsory IAP).
  - Specialization modules taken at Pus are recognised as long as the syllabi match.
  - Students are to submit all modules mapping via NUS Integrated Student Information System regardless or not the modules had been mapped by previous students in the past three academic years.

<sup>1</sup>Students belonging to AY2015 cohort are not allowed to use modules read at the partner universities to fulfil the GE requirements .

<sup>2</sup>Not applicable to students belonging to AY2015 cohort

- The previously mapped modules can be found on ME SEP website: <http://me.nus.edu.sg/current-students/enhancement-special-programmes/student-exchange-programme/> as a reference for your modules mapping planning.
- Matching: Must be at least 50% or more for ME TEs or Core modules. Dummy codes e.g., ME3661, ME3662, ME3663, ME4661, ME4662, ME4663 will be used for unmatched ME TEs.
- To map Dummy UEMs, you may use the following codes, EX3887, EX3888, EX4883, EX4884, which are worth 4MCs each.
- **Calculation of MCs:**
  - Lecture x no of weeks = contact hours per semester
  - Tutorial x no of weeks x 0.66 = contact hours per semester
  - Lab/Others x no of weeks x 0.33 = contact hours per semester
  - Total contact hours = 35 Hours (4MCs)
  - Eg. ME 2113: 26 lecture hours, 5 tutorial hours, 6 lab hours;  $26 + 0.66 (5) + 0.33 (6) = 31.3$  hours, 30 lecture hours = 3MC.
- **ME3 Design Project:** ME3101 & ME3102 (8MC) → ME3103 (6 MC), submit module mapping

## ➤ **Minimum graded MCs towards Degree, Major and Minor Requirements**

- Minimum graded MCs (NUS modules with assigned Letter-grades 'A+' to 'D', 'CS' grade or 'S'-grade) counted towards Degree, Major, and Minor Requirements:
  - A minimum of 50% for degree requirements (residency);
  - A minimum of 60% for programme requirements ; and
  - A minimum of 16MC for minor requirements
- The policy of minimum workload of 18 MCs per semester will be applicable to all new and returning students with effect from AY2015/16.

## ➤ **Study Plan and PUs Application Form**

- Download study plan form from ME SEP website: <http://me.nus.edu.sg/current-students/enhancement-special-programmes/student-exchange-programme/>
- You may refer to the previous mapped modules for some partner universities in ME SEP website.
- Submit study plans to ME Dept office (**Ms Wendy Goh**) for endorsement. Attach the email approvals when submitting the study plan for endorsement by ME Dept.
- Submit endorsed study plan, partner university application form and supporting documents to Dean's office (Miss Davina Tham Wei Na) directly. Check your documents with the checklist before submission. Observe the submission deadline.

## ➤ **Modules Conversion & Credit Transfer**

- Need to obtain a passing grade at host institution. All modules taken at PUs must be graded and softcopy of official transcript should be provided for modules conversion.
- MCs transferred back to NUS from overseas modules are to be excluded from CAP computation. Grades are non-transferrable.
- Students are to submit the credit transfer via NUS Integrated Student Information System
- Computer generated unofficial results slip from PUs' website can be used for modules conversion. Submit the photocopy of original transcript to ME Dept office (**Ms Wendy Goh**) once it is available.

## ➤ **SEP Loan and Financial Assistance**

- Students pay normal NUS fees for regular semesters and special term fees (if applicable).
- Students pay own airfare and living expenses approximately S\$10,000/semester (estimated).
- Refer to <http://www.nus.edu.sg/iro/financial/out/loans/index.html> for Overseas Student Exchange Programme (SEP) loan
- NUS Awards for Study Abroad (NASA): The details of NASA can be found from the website: <http://www.nus.edu.sg/iro/financial/out/nasa/index.html>

# Are you suitable for SEP?

- Financial status
- Language
- Risk with modules which comes with every overseas exchange opportunity
  - Exchange students may only get to confirm their modules when they are at the Pus – there is an unknown!
  - Mapped modules may not be offered at PUs as PUs cannot guaranteed the availability of required modules - there is a risk!
  - Double degree students may not have enough Mech Engrg modules to take at PUs – explore other modules as long as keep to the maximum credits per semester stipulated by the PUs!
- Flexibility
  - May need to take an additional semester to graduate
  - May need to take modules that may not meet your interest

## While at PUs:

- Although you only need to pass the modules - do your best in the modules!
- Our Ambassadors