## Engineering Faculty 2017 Language Implementation Plan<sup>1</sup>

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### 1 Context

#### 1.1 Language Policy

This Language Implementation Plan is compiled in accordance with the "Language Policy of Stellenbosch University" that was approved by the University Council on 22 June 2016. As required in Section 7.4.3 of the Policy, the Language Implementation Plan records the language arrangements for learning and teaching in the Engineering Faculty.

This plan gives effect to the language planning requirements given in Sections 7.4.1.1 and 7.4.1.2 of the Policy:

- > The English offering is revised upwards so as to achieve full accessibility to SU for academically deserving prospective and current students who prefer to study in English.
- The Afrikaans offering is managed so as to sustain access to SU for students who prefer to study in Afrikaans and to further develop Afrikaans as a language of tuition where reasonably practicable.

#### 1.2 Faculty language of tuition vision

The Language Implementation Plan also largely gives effect to the Engineering Faculty's vision regarding language of tuition (approved by the Faculty Board on 19 February 2016). In this vision, the Faculty states:

- Student learning is very important to us. We want to formulate our language of tuition to enable students to learn effectively.
- > We wish to promote a culture of accessibility and inclusivity in our Faculty and adapt our language of tuition, where necessary, as we strive towards this goal.
- > We strive for excellence measured to international standards. As part of this we wish to develop and expand international exchanges on undergraduate level.
- > We wish to contribute to the development of Afrikaans as an academic language, where possible.

## 2 BEng language of tuition

#### 2.1 Overview

Appendix A gives a table detailing the language arrangements of all undergraduate modules offered by the Engineering Faculty, as well as the modules in the four-year BEng programmes hosted by other faculties. The arrangements for modules hosted by other faculties are subject to the particular faculty's approval.

To ease the transition from school to university and provide full accessibility to students who studied in Afrikaans or English at school, the Engineering Faculty's approach in broad terms entails (details are given in the following sections):

- Offering the first three semesters of the four-year BEng programmes in parallel medium, in accordance with Section 7.1.3 of the Policy, with the exception of the first year elective modules and where it is not reasonably practicable (e.g. due to the language proficiency of the assigned staff members).
- > Offering the first year elective modules in English with simultaneous interpreting in Afrikaans, in accordance with Section 7.1.4 of the Policy, to promote integration between the language groups as envisaged in Section 7.1.3.2 of the Policy.
- Offering the modules of the second semester of the second year in parallel medium (Section 7.1.3 of the Policy) where multiple class groups are warranted or, where only one class group is used, predominantly in English with simultaneous interpreting in Afrikaans, in accordance with Section 7.1.4 of the Policy.
- Offering the third year modules predominantly in English, in accordance with Section 7.1.4 of the Policy.
- Offering the fourth year modules in English, in accordance with Section 7.1.9 of the Policy. As required by the Policy, all question papers will be provided in English, but question papers for major assessments will be provided in Afrikaans too, if students timeously request the Afrikaans papers.

The following sections give further details about the language of tuition.

#### 2.2 Language of tuition in the first year of the BEng extended degree programmes

Except for Preparatory Technical Drawings 146, the first year modules of the BEng extended degree programmes (EDPs) coincide with those of the first year of the BSc EDPs. The language of tuition for the common modules is determined by the Science Faculty.

Preparatory Technical Drawings 146 is offered with all information conveyed in English and all the key concepts also explained in Afrikaans. Further, simultaneous interpreting in Afrikaans is offered, according to Section 7.1.4.3 of the Policy.

#### 2.3 Language of tuition in the first year of the 4-year BEng programmes

Since all the BEng programmes share a common first year, except for one programme-specific elective in each programme, the compulsory first year modules are offered in parallel medium, in accordance with Section 7.1.3 of the Policy. We envisage that the whole first year group will be divided into four class groups, with one or two class groups receiving their lectures in Afrikaans and two or three class groups receiving their lectures in English. For the modules offered by the Science Faculty (Engineering Mathematics 115 and 145, Applied Mathematics B 124 and 154, and Engineering Physics 113), this arrangement is subject to the Science Faculty's agreement.

The elective modules in the first year are offered in accordance with Section 7.1.4 of the Policy, i.e. all information is conveyed at least in English with simultaneous interpreting in Afrikaans and with brief summaries in Afrikaans. Due to the project or laboratory nature of these modules, interpreting is limited to one period per week, except for Engineering Physics 152 where interpreting is required for two periods per week. The language specification and method of delivery for these modules are also designed to address Section 7.1.3.2 of the language policy, i.e. to promote integration within programmes.

## 2.4 Language of tuition in the first semester of the second year of the 4-year BEng programmes

The modules common to all the BEng programmes, i.e. Engineering Mathematics 214 and Applied Mathematics B 224, are offered on the same basis as the first year common modules (in accordance with Section 7.1.3 of the Policy), with one or two class groups in Afrikaans and two or three class groups in English. Also, as in recent years, modules with approximately 250, or more, students are offered with one or two class groups in Afrikaans and one or two class groups in English.

Since the BEng programmes have a significant drop-out rate in the second year, the Engineering Faculty prefers to extend the parallel medium offering (in accordance with Section 7.1.3 of the Policy) to all modules of the first semester of the second year. This will entail splitting module groups as small as 100 into two. From 2018 onwards, parallel medium will not be offered in a module if fewer than 25 students chose to attend the Afrikaans lectures for that module in the previous year.

The implementation of the parallel medium in each module is also subject to it being reasonably practicable (in particular the availability and language proficiency of staff members, timetable and venue constraints, as well as SU's available resources and the competing demands on those resources). Further, for the modules offered by other faculties (Engineering Mathematics 214, Applied Mathematics B 214, Computer Science E 214, Chemistry C 224, Engineering Geology 224), the particular faculty's agreement will be required.

If parallel medium is not offered for a given module in a particular year, the language of tuition for that module is arranged similarly to second semester modules not offered by parallel medium, as described in the next section.

# 2.5 Language of tuition in the second semester of the second year of the 4-year BEng programmes

The modules common to most of the BEng programmes, e.g. Engineering Mathematics 242, and modules with approximately 250, or more students, are offered with one or two class groups in Afrikaans and one, two or three class groups in English (in accordance with Section 7.1.3 of the Policy).

The remaining modules are offered according to Section 7.1.4 of the Policy (all information is conveyed at least in English), and also simultaneous interpreting into Afrikaans is made available according to Section 7.1.4.3. Questions asked in contact sessions are answered in the language of the question where it is reasonably practicable, e.g. if the lecturer has the necessary language proficiency or with the assistance of the interpreter (if the interpreting service has not been discontinued at the time as provided for in Section 7.1.4.3).

#### 2.6 Language of tuition in the third year of the 4-year BEng programmes

The modules are, where it is reasonably practicable (e.g. if the lecturer has the necessary language proficiency), offered according to Section 7.1.4 of the Policy, i.e. all information is conveyed at least in English. Further, a brief Afrikaans summary is provided during each lecture, either orally or as a slide. In these modules, questions asked in contact sessions are answered in the language of the question.

If the lecturer does not have the language proficiency necessary to meet the requirements of Section 7.1.4 of the Policy, the lectures of the module are offered in English, according to Section 7.1.5.2 of the Policy.

#### 2.7 Language of tuition in the fourth year of the 4-year BEng programmes

The modules are offered in English, in accordance with Section 7.1.9 of the Policy. As required by the Policy, all question papers will be provided in English, but question papers for major assessments (A1, A2, A3) will be provided in Afrikaans too, if students timeously request the Afrikaans papers (normally by the end of the third week of the semester, by email to the lecturer offering the module).

#### 2.8 Other language of tuition interventions

The Engineering Faculty requests that interpreters be made available to add soundtracks in Afrikaans or English (respectively if the video was recorded using English or Afrikaans) to video recordings used by the Faculty for first and second year modules.

The Engineering Faculty is planning to develop a terminology dictionary, on the Mobilex platform, starting with modules of the first and second year. The initial focus will be on the Afrikaans and English entries. If the number of isiXhosa speakers warrants it and if persons with suitable technical and language expertise are available, adding isiXhosa entries will also be initiated.

## **3** Postgraduate language of tuition

The modules are offered in English, in accordance with Section 7.1.9 of the Policy.

## **Appendix A: Planned language offering per module**

The table below gives pertinent details of the planned language offering in each of the modules in the four year BEng programmes, as well as Preparatory Technical Drawings 146. Entries in the table below are sorted by year and semester, since the Language Implementation Plan is correspondingly structured. Note that the language specifications of modules not offered by the Engineering Faculty are subject to the approval of the faculty offering the module.

The entries in the "Language format" column refer to sections in the Language Policy and this Language Implementation Plan, that is:

- > 7.1.3.1: Afrikaans and English lectures offered in separate class groups, in accordance with Section 7.1.3 of the Policy, as described in Sections 2.3 and 2.4 above.
- 7.1.4.1: All information is conveyed at least in English, either as described in Section 2.2 above for Preparatory Technical Drawings 146, or with brief Afrikaans summaries as described in Section 2.6 above for the other modules, in accordance with Section 7.1.4 of the Policy.
- 7.1.4.3: All information is conveyed at least in English, in accordance with Section 7.1.4 of the Policy, with simultaneous interpreting in Afrikaans in accordance with Section 7.1.4.3, as described in Section 2.5 above.

Module code	Semester	Module name	Home Department	Language format	Lecture periods per week	Periods interpreted per week	Class groups	Credits	Estimated number of students
12201146	2	Preparatory Technical Drawings 146	M&M Eng	7.1.4.3	3		1	16	75
20753124	1	Applied Mathematics B 124	Math Sci	7.1.3.1	4		4	15	730
49484123	1	Engineering Chemistry 123	Process Eng	7.1.3.1	4		4	15	759
46825123	1	Engineering Drawing 123	M&M Eng	7.1.3.1	1		4	15	805
38571115	1	Engineering Mathematics 115	Math Sci	7.1.3.1	5		4	15	750
59420113	1	Engineering Physics 113	Physics	7.1.3.1	2		4	8	693
59447113	1	Professional Communication 113	Dean Eng	7.1.3.1	2		4	8	718
20753154	2	Applied Mathematics B 154	Math Sci	7.1.3.1	4		4	15	758
48321152	2	Chemistry C 152	Chemistry & PolSci	7.1.4.3	0	1	1	6	106
30317143	2	Computer Programming 143	E&E Eng	7.1.3.1	3		4	12	763
39802152	2	Electronic Engineering 152	E&E Eng	7.1.4.3	0	1	1	6	135
12599143	2	Electro-techniques 143	E&E Eng	7.1.3.1	3.5		4	15	761
38571145	2	Engineering Mathematics 145	Math Sci	7.1.3.1	5		4	15	790

> 7.1.9: All information is conveyed at least in English; Afrikaans question papers may be requested by students, as described in Section 2.7 above.

Module code	Semester	Module name	Home Department	Language format	Lecture periods per week	Periods interpreted per week	Class groups	Credits	Estimated number of students
59420152	2	Engineering Physics 152	Physics	7.1.4.3	0	2	1	6	128
31496152	2	Industrial Engineering 152	Industrial Eng	7.1.4.3	0	1	1	6	111
39292152	2	Mechanical Engineering 152	M&M Eng	7.1.4.3	0	1	1	5	128
10886152	2	Mechatronic Engineering 152	M&M Eng	7.1.4.3	0	1	1	5	101
19712143	2	Strength of Materials 143	Civil Eng	7.1.3.1	3		4	12	894
20753224	1	Applied Mathematics B 224	Math Sci	7.1.3.1	3		4	15	776
11576224	1	Chemical Engineering 224	Process Eng	7.1.4.3	3	3	1	15	88
48321224	1	Chemistry C 224	Chemistry & PolSci	7.1.4.3	4	4	1	15	94
18481224	1	Civil Engineering 224	Civil Eng	7.1.4.3	3	3	1	15	104
59536214	1	Computer Science E 214	Math Sci	7.1.4.3	3	3	1	15	180
36153214	1	Computer Systems 214	E&E Eng	7.1.3.1	3		2	15	225
12599214	1	Electro-techniques 214	E&E Eng	7.1.3.1	3		2	15	309
18791212	1	Engineering Economics 212	Industrial Eng	7.1.3.1	2		2	8	101
59552214	1	Engineering Geology 214	Sciences	7.1.4.3	3	3	1	15	108
38571214	1	Engineering Mathematics 214	Math Sci	7.1.3.1	4		4	15	666
40142211	1	Practical Workshop Training 211	M&M Eng	7.1.3.1	1		1	0	370
23256212	1	Production Management 212	Industrial Eng	7.1.3.1	2		2	8	105
19712224	1	Strength of Materials 224	Civil Eng	7.1.3.1	3		2	15	347
46779214	1	Systems and Signals 214	E&E Eng	7.1.3.1	3		2	15	163
33863214	1	Thermodynamics A 214	M&M Eng	7.1.3.1	3		2	15	150
33863224	1	Thermodynamics A 224	Process Eng	7.1.4.3	3	3	1	15	100
59544214	1	Thermofluid Dynamics 214	M&M Eng	7.1.3.1	3		2	15	113
20753242	2	Applied Mathematics B 242	Math Sci	7.1.3.1	2		2	8	241
20753252	2	Applied Mathematics B 252	Math Sci	7.1.4.3	2	2	1	8	106
39020254	2	Building Materials 254	Civil Eng	7.1.4.3	3	3	1	15	107
11576254	2	Chemical Engineering 254	Process Eng	7.1.4.3	3	3	1	15	124
11576264	2	Chemical Engineering 264	Process Eng	7.1.4.3	3	3	1	15	97
48321254	2	Chemistry C 254	Chemistry & PolSci	7.1.4.3	4	4	1	15	91
36153245	2	Computer Systems 245	E&E Eng	7.1.4.3	3	3	1	15	232
12491245	2	Electronics 245	E&E Eng	7.1.4.3	3	3	1	15	229
43915244	2	Energy Systems 244	E&E Eng	7.1.4.3	3	3	1	15	170
59560244	2	Engineering Informatics 244	Civil Eng	7.1.4.3	3	3	1	15	161
38571242	2	Engineering Mathematics 242	Math Sci	7.1.3.1	2		2	8	542
59498243	2	Engineering Statistics 243	Process Eng	7.1.4.3	3	3	1	15	91

Module code	Semester	Module name	Home Department	Language format	Lecture periods per week	Periods interpreted per week	Class groups	Credits	Estimated number of students
44415244	2	Fluid Mechanics 244	M&M Eng	7.1.4.3	3	3	1	15	222
39667254	2	Geotechnique 254	Civil Eng	7.1.4.3	3	3	1	15	93
47422244	2	Industrial Programming 244	Industrial Eng	7.1.4.3	2	2	1	15	101
39705244	2	Introductory Machine Design 244	M&M Eng	7.1.3.1	1		2	15	329
34134244	2	Manufacturing Processes 244	Industrial Eng	7.1.4.3	2	2	1	15	97
30325244	2	Materials Science A 244	M&M Eng	7.1.3.1	3		2	15	303
36323262	2	Numerical Methods 262	Math Sci	7.1.3.1	2		2	8	409
40142241	2	Practical Workshop Training 241	M&M Eng	7.1.3.1	1		1	0	23
19712254	2	Strength of Materials 254	Civil Eng	7.1.4.3	3	3	1	15	111
19739244	2	Strength of Materials W 244	M&M Eng	7.1.4.3	3	3	1	15	202
46779244	2	Systems and Signals 244	E&E Eng	7.1.4.3	3	3	1	15	160
40150241	2	Vacation Training 241	Civil Eng	7.1.3.1	0		1	0	209
11576316	1	Chemical Engineering 316	Process Eng	7.1.4.1	3		1	15	99
11576317	1	Chemical Engineering 317	Process Eng	7.1.4.1	3		1	15	105
13362311	1	Complementary Studies (Eng) 311	Dean Eng	7.1.4.1	0		1	4	316
18139315	1	Computer Science 315	Math Sci	7.1.4.1	3		1	16	41
18139334	1	Computer Science 334	Math Sci	7.1.4.1	3		1	16	22
23965314	1	Control Systems 314	E&E Eng	7.1.4.1	3		1	15	237
46833314	1	Design (E) 314	E&E Eng	7.1.4.1	1		1	15	201
11949324	1	Electrical Drive Systems 324	E&E Eng	7.1.4.1	3		1	15	295
51357314	1	Electromagnetics 314	E&E Eng	7.1.4.1	3		1	15	142
12491315	1	Electronics 315	E&E Eng	7.1.4.1	3		1	15	202
59560314	1	Engineering Informatics 314	Civil Eng	7.1.4.1	3		1	15	141
59498314	1	Engineering Statistics 314	Stats & Actua	7.1.4.1	3		1	15	222
33928326	1	Heat Transfer A 326	Process Eng	7.1.5.2	3		1	15	104
14400324	1	Hydraulics 324	Civil Eng	7.1.4.1	3		1	15	132
16020314	1	Machine Design A 314	M&M Eng	7.1.4.1	2		1	15	168
56804334	1	Modelling 334	M&M Eng	7.1.4.1	4		1	18	185
47902316	1	Particle Technology 316	Process Eng	7.1.5.2	3		1	15	108
65609314	1	Philosophy and Ethics 314	Philosophy	7.1.4.1	3		1	8	333
23256314	1	Production Management 314	Industrial Eng	7.1.4.1	3		1	15	100
19739334	1	Strength of Materials W 334	M&M Eng	7.1.4.1	3		1	15	122
46779315	1	Systems and Signals 315	E&E Eng	7.1.4.1	3		1	15	168
21040324	1	Transport Science 324	Civil Eng	7.1.4.1	3		1	15	138
13184324	1	Water Treatment 324	Civil Eng	7.1.4.1	3		1	15	138

Module code	Semester	Module name	Home Department	Language format	Lecture periods per week	Periods interpreted per week	Class groups	Credits	Estimated number of students
11576344	2	Chemical Engineering 344	Process Eng	7.1.4.1	3		1	15	93
11576354	2	Chemical Engineering 354	Process Eng	7.1.4.1	3		1	15	96
11576367	2	Chemical Engineering 367	Process Eng	7.1.5.2	3		1	15	101
41696356	2	Chemical Engineering D 356	Process Eng	7.1.4.1	1		1	15	95
23965344	2	Control Systems 344	E&E Eng	7.1.4.1	3		1	15	153
23965354	2	Control Systems 354	M&M Eng	7.1.4.1	4		1	18	199
46833344	2	Design (E) 344	E&E Eng	7.1.4.1	1		1	15	145
51357344	2	Electromagnetics 344	E&E Eng	7.1.4.1	3		1	15	90
12491344	2	Electronics 344	E&E Eng	7.1.4.1	3		1	15	233
12491365	2	Electronics 365	E&E Eng	7.1.4.1	3		1	15	144
43915344	2	Energy Systems 344	E&E Eng	7.1.4.1	3		1	15	59
			Industrial						
18791354	2	Engineering Economics 354	Eng	7.1.4.1	2		1	15	94
39667354	2	Geotechnique 354	Civil Eng	7.1.4.1	3		1	15	121
14400354	2	Hydraulics 354	Civil Eng Industrial	7.1.4.1	3		1	15	150
53937354	2	Industrial Management 354	Eng	7.1.4.1	3		1	15	93
16039344	2	Machine Design B 344	M&M Eng	7.1.4.1	2		1	15	178
47988345	2	Mineral Processing 345	Process Eng	7.1.5.2	3		1	15	99
59528345	2	Operations Research (Eng) 345	Industrial Eng	7.1.4.1	0		1	15	97
46167344	2	Quality Assurance 344	Industrial Eng	7.1.4.1	3		1	15	86
36307354	2	Structural Design 354	Civil Eng	7.1.4.1	3		1	15	136
46779344	2	Systems and Signals 344	E&E Eng	7.1.4.1	3		1	15	163
19984354	2	Theory of Structures 354	Civil Eng	7.1.4.1	3		1	15	143
59544344	2	Thermofluid Dynamics 344	M&M Eng	7.1.4.1	3		1	15	126
21040354	2	Transport Science 354	Civil Eng	7.1.4.1	3		1	15	121
40150342	2	Vacation Training 342	Civil Eng	7.1.3.1	0		1	0	169
40150351	2	Vacation Training 351	Industrial Eng	7.1.3.1	0		1	0	109
40150341	2	Vacation Training 341	M&M Eng	7.1.3.1	0		1	0	246
40150361	2	Vacation Training 361	Process Eng	7.1.3.1	0		1	0	129
23477354	2	Vibration and Noise 354	M&M Eng	7.1.4.1	3		1	12	170
13363392	Υ	Internship (Eng) 392	Process Eng	7.1.3.1	0		1	0	0
11576414	1	Chemical Engineering 414	Process Eng	7.1.9	3		1	15	51
11576424	1	Chemical Engineering 424	Process Eng	7.1.9	3		1	15	10
11576426	1	Chemical Engineering 426	Process Eng	7.1.9	3		1	15	52
36153414	1	Computer Systems 414	E&E Eng	7.1.9	3		1	15	56
23965414	1	Control Systems 414	E&E Eng	7.1.9	3		1	15	55

Module code	Semester	Module name	Home Department	Language format	Lecture periods per week	Periods interpreted per week	Class groups	Credits	Estimated number of students
12491414	1	Electronics 414	E&E Eng	7.1.9	3		1	15	44
43915414	1	Energy Systems 414	E&E Eng	7.1.9	3		1	15	30
43915424	1	Energy Systems 424	E&E Eng	7.1.9	3		1	15	30
51365434	1	Energy Systems M 434	M&M Eng	7.1.9	3		1	15	109
41726414	1	Finite Element Methods 414	M&M Eng	7.1.9	0		1	15	61
33928414	1	Heat Transfer A 414	M&M Eng	7.1.9	3		1	15	179
52124414	1	High Frequency Technique 414	E&E Eng	7.1.9	3		1	15	12
21350424	1	Hydraulic Engineering 424	Civil Eng	7.1.9	3		1	15	125
14397424	1	Hydrology 424	Civil Eng	7.1.9	3		1	15	122
44792414	1	Industrial Ergonomics 414	Industrial Eng	7.1.9	3		1	15	90
48062414	1	Information Systems 414	Industrial Eng	7.1.9	2		1	15	90
11745414	1	Maintenance Management 414	Eng	7.1.9	3		1	15	23
45381414	1	Manufacturing Systems 414	Eng	7.1.9	2		1	15	89
39292414	1	Mechanical Engineering 414	M&M Eng	7.1.9	3		1	15	0
50458424	1	Mechatronics 424	M&M Eng	7.1.9	3		1	18	159
47988415	1	Mineral Processing 415	Process Eng	7.1.9	3		1	15	52
53678414	1	Numerical Fluid Dynamics 414	M&M Eng	7.1.9	3		1	15	25
59528415	1	Operations Research (Eng) 415	Industrial Eng	7.1.9	0		1	15	95
65609414	1	Philosophy and Ethics 414	Philosophy	7.1.9	3		1	8	186
30279418	1	Project (Civil Engineering) 418	Civil Eng	7.1.9	0		1	30	0
51993412	1	Project Management 412	Industrial Eng	7.1.9	3		1	12	517
36307424	1	Structural Design 424	Civil Eng	7.1.9	3		1	15	132
46779414	1	Systems and Signals 414	E&E Eng	7.1.9	3		1	15	63
20419414	1	Telecommunication 414	E&E Eng	7.1.9	3		1	15	21
21040434	1	Transport Science 434	Civil Eng	7.1.9	3		1	15	131
36315446	2	Advanced Design (Civil) 446	Civil Eng	7.1.9	2		1	15	114
13362441	2	441	Dean Eng	7.1.9	0		1	4	173
51373454	2	Engineering Management 454	Civil Eng	7.1.9	4		1	15	112
59501444	2	Enterprise Design 444	Eng	7.1.9	2		1	15	94
59455444	2	Entrepreneurship (Eng) 444	E&E Eng	7.1.9	0		1	15	82
50431442	2	Environmental Engineering 442	Process Eng	7.1.9	3		1	8	326
50431454	2	Environmental Engineering 454	Process Eng	7.1.9	3		1	15	149
10618442	2	Industrial Practice 442	Industrial Eng	7.1.9	2		1	8	91

Module code	Semester	Module name	Home Department	Language format	Lecture periods per week	Periods interpreted per week	Class groups	Credits	Estimated number of students
21466444	2	Mechanical Design 444	M&M Eng	7.1.9	3		1	15	166
23256444	2	Production Management 444	Industrial Eng	7.1.9	3		1	12	160
30279458	2	Project (Civil Engineering) 458	Civil Eng	7.1.9	0		1	30	105
46795448	2	Project (E) 448	E&E Eng	7.1.3.1	0		1	45	97
59471444	2	Quality Management 444	Industrial Eng	7.1.9	2		1	15	88
53945442	2	Simulation 442	Industrial Eng	7.1.9	2		1	8	93
40150451	2	Vacation Training 451	Industrial Eng	7.1.9	0		1	0	81
40150441	2	Vacation Training 441	M&M Eng	7.1.9	0		1	0	178
11576478	Y	Chemical Engineering 478	Process Eng	7.1.3.1	0		1	32	42
47929488	Y	Design Project 488	Process Eng	7.1.9	1		1	32	50
25445498	Y	Industrial Project 498	Industrial Eng	7.1.3.1	0		1	30	100
39179478	Y	Mechanical Project 478	M&M Eng	7.1.9	2		1	45	104
56790488	Y	Mechatronic Project 488	E&E Eng	7.1.9	2		1	45	9
56790478	Y	Mechatronic Project 478	M&M Eng	7.1.9	2		1	45	61
47988478	Y	Mineral Processing 478	Process Eng	7.1.3.1	0		1	32	13