School of Science & Informatics

A Review of Student Progression

2009-2011

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Introduction

This report has been prepared for the Programmatic Review Panel for the School of Science & Informatics in 2011-2012. It focuses on the progression performance of the School and the measures taken to optimise same over recent years. It also makes a number of recommendations in relation to maximising the School's progression performance in the future. As the School was newly created in early 2011, the data presented for previous years has been compiled from the data records associated with the individual departments that now fall under the umbrella of the School structure.

Retention vs Progression

The School and the Institute have considered various options with regard to the definition of retention and its analysis. As stated in the report *A Study of Progression in Irish Higher Education*, issued in October 2010 by the HEA, "internationally comparable measures of student progression and completion in higher education are difficult to develop because of the variety of systems of entry and access to higher education that exist across countries". In addition, this HEA report quotes Van Stolk and colleagues in stating that "it is challenging to make comparisons between retention rates of countries given the differences in how retention and completion rates are defined and calculated". Subsequent to the first visit of the Programmatic Review Panel in 2011, the Chairman of the Panel indicated that he would have liked to have seen a different approach adopted by the School in relation to the analysis of retention data. Taking this feedback on board, the School has prepared a comprehensive analysis of data available for the academic years 2008-2009, 2009-2010 and 2010-2011. The analysis focuses on these years because CIT has been operating the fully "modularised and semesterised" approach during these years and data is available from CIT systems for this period in a format which is quite suitable for analysis and comparison with sector-wide data provided by the HEA in its 2010 report. Cohort-based analysis options are not yet available to either CIT or the HEA but the analysis provided in subsequent sections of this report provides significant insights into student progression, transfer, entry to repeat years and exit from CIT.

Methodology

The approach adopted in this report has been to focus on the calculation of student examination pass rates, repeat rates, programme transfer rates and exit rates against student numbers registered on each School programme at the beginning of each academic year studied while also taking account of Institute census data collected in the month of November of each year analysed. Comprehensive analysis of the full "journey" of student cohorts will only become feasible when An Chéim, the IT application shared services provider for the IoT sector, makes available the relevant functionality to the sector as a whole.

Attachments A to Y, inclusive, contain the results of the analysis of progression and transfer data for the School as a whole, its constituent departments and the various levels (NFQ) of programme that each department offers. These Attachments adhere to a consistent format and set of definitions. In Table 1 (an extract from the table in Attachment A), presented here for the purposes of explaining further the analysis methodology adopted, the following definitions apply:

- Year – the calendar year in which the academic year under analysis concluded
- Pass – the total number of students who passed their examinations and progressed to the next stage of the programme
- Repeat/Defer – the total number of students who repeated the academic year or deferred their examinations, based on the November census following the academic year under analysis
- Transfer – the total number of students who transferred to another CIT programme of study, based on the November census following the academic year under analysis
- Left – the total number of students from the cohort under analysis for whom no record of continued study could be found in the November census following the academic year under analysis
- Total – the total number of students in the cohort under analysis

- Pass% = Pass / Total

- Repeat/Defer% = (Repeat/Defer) / Total

- Transfer% = Transfer / Total

- Left% = Left / Total

These definitions apply to Attachments A to Y, inclusive.

Year	Pass	Repeat / Defer	Transfer	Left	Total	Pass%	Repeat / Defer%	Transfer%	Left%
2009	467	74	37	101	679	68.8%	10.9%	5.4%	14.9%
2010	572	105	27	123	827	69.2%	12.7%	3.3%	14.9%
2011	700	81	31	132	944	74.2%	8.6%	3.3%	14.0%

Table 1: Extract from Attachment A

Thus, one can see from Table 1, which reflects the progression performance of the School as whole over the interval under analysis, that relative to the number of students registered on the School's programmes at the beginning of the relevant academic years:

- 68.8% - 74.2% of the School's students passed their examinations during the academic year in which they were first undertaken

- 8.6% - 12.7% of the School's students repeated or deferred their examinations following the academic year in which they were first undertaken

- 3.3% - 5.4% of the School's students transferred to other programmes of study operated by CIT on completion of the academic year

- 14% - 14.9% of the School's students were not present in the Institute following completion of the academic year

In addition to the analysis of student progression and transfer trends described above, attachments AA to QQ, inclusive, contain data and charts which show how minimum and mid-point CAO points varied over the analysis period for the School as a whole, its constituent departments and the programmes of study operated by said departments. These Attachments adhere to a consistent format and set of definitions. In Table 2 (an extract from the table in Attachment AA), presented here for the purposes of explaining further the analysis methodology adopted, the following definitions apply:

- Avg Min – the average, by programme, minimum CAO points for the programmes included in the analyses presented
- Avg Mid – the average, by programme, *mid-point CAO points for the programmes included in the analyses presented
    * For any given programme in any given year, the mid-point is defined as the number of CAO points achieved by the student who is mid-placed in the list of offers made for this programme via the CAO.

These definitions apply to Attachments AA to QQ, inclusive.

	2007	2008	2009	2010	2011
Avg Min	248	247	269	303	300
Avg Mid	372	357	357	368	364

Table 2: Extract from Attachment AA

From this table is clear that:

- The average minimum CAO points for the School as a whole increased from 248 to 300 from 2007 to 2011, inclusive
- The average mid-point CAO points for the School as a whole remained relatively stable in the range 357-372 from 2007 to 2011, inclusive

A more comprehensive analysis of all of the data presented in the attachments to this report is presented in following sections.

It is important to note that the student data shown in this report may vary slightly from that shown in other reports presented as a consequence of IT system limitations which exclude some categories of student from the analysis (e.g. ERASMUS students, students who are registered for examinations only). However, the analysis presented should be sufficiently accurate for the purposes for which it has been prepared.

Progression – Analysis of Current Performance

The School and its Departments

From Attachment A, it is clear that, for the School as a whole, the percentage of students who progress to the next stage of their selected programme of study in the year in which they sit their examinations has increased by 5.4% from 2009 to 2011. This increase has been achieved largely as a consequence of a reduction in repeating/deferring students as well as in student transfers. A small reduction in students exiting CIT has also been achieved (0.9%). In addition, during this period of time, the number of full-time students studying in the School has increased from 467 to 700, a 50% increase. However, student exit rates of 14% - 15% during the period under review give rise for concern. While the HEA estimates that up to 2% of students will transfer between HEIs in any given year for a variety of reasons, a student exit rate net of transferees of 12% - 13% is undesirable and all possible avenues need to be explored to reduce this figure.

From Attachment B, it is clear that the Department of Applied Physics & Instrumentation has achieved good gains in student progression rates (62.3% in 2009 to 73.7% in 2011) but student exit rates from this area remain volatile (spanning the range of 13.7% to 18.2%). Attachment C shows strong growth in the number of students studying in the Department of Biological Sciences as well as student pass rates of approx. 80% with a 10% approx. student exit rate. Pass rates in the Department of

Chemistry (Attachment D) give rise for concern as they have decreased over the period of analysis from 75% to 61% while the number of students studying in this Department has increased slightly. Student exit rates from the Department of Chemistry vary from 10% to 20%. Department of Computing pass rates have increased by 6.5% over the period of study but started from a low base (56.3%). Department of Computing student exit rates are consistently high and remain at a level of approx. 20% of those registered in this department.

Stage 1 Analysis

As emphasised in the 2010 HEA report, successful progression of students from stage 1 of their programmes of study is a crucial factor in student retention. Appendix F presents the stage 1 progression data for the School as a whole. The stage 1 progression data for the Departments of Applied Physics & Instrumentation, Biological Sciences, Chemistry and Computing respectively are presented in Attachments J, N, R and V, respectively.

An analysis of the data presented in Appendix F reveals that the School as a whole has, over the period under analysis, increased its student intake by 58% (240 students in 2009, 379 in 2011), increased stage 1 student progression from 58.3% to 67.5%, reduced stage 1 repeats/deferrals from 8.3% to 6.3%, reduced stage 1 transfer from School programmes to other CIT programmes from 8.3% to 6.3% and reduced the number of stage 1 students exiting the Institute from the School's programmes from 22.9% to 17.7%.

Analysis of Attachments J, N, R and V reveals that, over the period under analysis, progression rates for stage 1 students for the Departments of Applied Physics & Instrumentation, Biological Sciences and Computing have all increased while those for the Department of Chemistry have been volatile and decreased. Overall Department of Computing stage 1 progression rates give rise for concern as, while they have increased from 44.6% to 53.5% over the analysis period, they are low relative to the School

average performance. However, the progression rates of students of computer science across the HE sector in Ireland are very low and this fact must be considered when considering the performance of CIT's Department of Computing.

For the purposes of comparison, the Table C4 shown below has been copied from the 2010 HEA report as it provides a summary of sector-wide stage 1 student non-presence rates based on a census conducted between mid-March 2007 and mid-March 2008.

Table C4: Institute of Technology All Levels Non-Presence Rates by Field of Study

Field of Study	Non Presence Rates Level 6/7/8														All Institutes
	AIT	ITB	CIT	ITC	DKIT	IADT	DIT	GMIT	LIT	LYIT	ITS	ITTAL	ITTRA	WIT	
Education	n/a	n/a	23%	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	9%	n/a	n/a	11%
Healthcare	12%	n/a	12%	18%	10%	n/a	7%	15%	10%	3%	9%	25%	9%	24%	14%
Science, Agriculture & Veterinary	27%	20%	19%	20%	41%	n/a	24%	30%	29%	20%	18%	30%	15%	18%	24%
Social Science, Business, Law, Arts & Humanities	18%	21%	20%	23%	26%	14%	13%	27%	24%	26%	26%	30%	16%	18%	21%
Engineering excl Civil	34%	32%	28%	29%	33%	n/a	21%	25%	22%	24%	28%	34%	7%	28%	26%
Construction and Related	31%	n/a	20%	26%	25%	n/a	27%	19%	26%	16%	26%	n/a	30%	20%	22%
Services	32%	n/a	25%	15%	23%	n/a	16%	43%	31%	n/a	21%	56%	15%	25%	25%
Computer Science	18%	39%	39%	36%	28%	30%	26%	43%	26%	30%	24%	26%	35%	37%	32%
Combined and Other Disciplines	n/a	n/a	n/a	n/a	n/a	10%	16%	n/a	n/a	n/a	n/a	n/a	n/a	n/a	15%
All Disciplines	21%	24%	21%	24%	24%	16%	16%	28%	23%	22%	23%	30%	18%	22%	22%

From an analysis of available fields of study in this table, it is assumed that the *Science & Ag. & Vet.* field of study provides the best basis for comparison for CIT programmes in the Departments of Chemistry and Biological Sciences, *Engineering (excl. Civil)*

provides the best basis for comparison for CIT programmes in the Department of Applied Physics and Instrumentation, and *Computer Science* provides the best basis for comparison for CIT Department of Computing programmes.

On this basis, the comparators selected for the School of Science & Informatics non-presence data are the *Science & Ag. & Vet.* non-presence rate for all IoTs (24%), the *Engineering (excl. Civil)* non-presence rate for al IoTs (26%) and the *Computer Science* non-presence rate for all IoTs (32%). These have been entered into Table 3 with the corresponding data from the various programmes operated by the departments.

Stage 1 Non-presence rates, IoT sector, 2007-08, based on HEA data	*School Stage 1 Non-presence Rates, 2009-11*
Science & Ag. & Vet. non-presence rate for all IoTs - 24%	*Biological Science 10.5% - 18.2%* *Chemistry 14.3% - 43.5%*
Engineering (excl. Civil) non-presence rate for al IoTs - 26%	*Applied Physics & Instrumentation 16.7% - 24.4%*
Computer Science non-presence rate for all IoTs - 32%	*Computing 24.6% - 31.6%*

Table 3: Stage 1 Non-presence Rates for Departments in the School of Science & Informatics (2009-11) Compared to Stage 1 Non-presence Rates for the IoT Sector as a Whole (2007-08)

An analysis of the data shown in Table 3 reveals that non-presence rates for stage 1 School students in the period 2009-11 is generally somewhat lower than non-presence rates for the relevant fields of study for the sector as a whole based on the HEA data for 2007-08. The only exception to this observation would be in 2010 for the Department of Chemistry when non-presence rates spiked briefly.

It should be noted that, of necessity, the census dates used by CIT are different to those used for the HEA analysis and this fact needs to be borne in mind when comparing CIT data with HEA data. The HEA analysis was based on a mid-March census date while the CIT analysis is based on an early November census date. The HEA estimates that approx. 4% of stage 1 students will have left the HE Irish system between the commencement of the academic year and mid-March. The CIT data presented will include these students. In addition, the HEA estimates that student transfer rates between HEIs may be as high as 2% annually and this point should also be considered when student exit rates are being reviewed.

Stages 2, 3 and 4

For stages 2, 3 and 4 of IoT programmes, the HEA report indicates that non-presence rates for all IoTs are as shown in Table 4. The HEA report does not provide a breakdown of non-presence rates by fields of study across IoTs for stages 2, 3 and 4.

	Stage 2	Stage 3	Stage 4
ALL IoT	10.0%	7.0%	8.0%

Table 4: Non-presence rates for all programmes in all IoTs, 2007-2008

However, by considering the data shown in Table 4 in conjunction with the 22% non-presence rate for stage 1 of all IoT programmes and assuming that the non-presence rate in stages 2, 3 and 4 of the selected fields of study may be calculated on a pro rata basis with the sector-wide data available for stage 1, Table 5 may be generated to produce an expected profile of student non-presence by field of study across stages 1, 2, 3 and 4.

	Stage 1	Stage 2	Stage 3	Stage 4
ALL IoT	22.0%	10.0%	7.0%	8.0%
Science/Ag/Vet	24.0%	10.9%	7.6%	8.7%

Eng Excl Civil	26.0%	11.8%	8.3%	9.5%
Computer Science	32.0%	14.5%	10.2%	11.6%

Table 5: Expected Profile of Student Non-presence Rates by Field of Study, 2007-2008, Based on HEA Data

By combining School of Science & Informatics non-presence data with that shown for Table 5, it becomes possible to perform a general comparison of School non-presence data (2009-11) versus that estimated for the sector as a whole (2007-08). The results of this exercise have been captured in Table 6.

Estimates for IoT Sector as a Whole					**CIT-specific Data**			
Field of Study (All IoTs)	**Stage 1**	**Stage 2**	**Stage 3**	**Stage 4**	**Stage 1**	**Stage 2**	**Stage 3**	**Stage 4**
ALL	22.0%	10.0%	7.0%	8.0%	CIT 17.2% - 21%	CIT 8.8% - 11.4%	CIT 7.4% - 8.4%	CIT 8.2% - 11.4%
Science/Ag/Vet	24.0%	10.9%	7.6%	8.7%	Biology 10.5% - 18.2%	Biology 7.1% - 8.4%	Biology 0.0% – 4.2%	Biology 4.3% - 17.1%
					Chemistry 14.3% - 43.5%	Chemistry 0.0% - 33.3%	Chemistry 10.3% - 16.7%	Chemistry 0.0% - 12.5%
Eng Excl Civil	26.0%	11.8%	8.3%	9.5%	Physics 16.7%-27.3%	Physics 6.7% - 8.3%	Physics 0% - 29.4%	Physics 6.3% - 26.1%
Computer Science	32.0%	14.5%	10.2%	11.6%	Computing 24.6% - 31.6%	Computing 15.1% - 21.8%	Computing 4.3% - 12.7%	Computing 6.1% - 17.9%

Table 6: Estimated field of study non-presence data for the IoT sector as a whole (2007-08) compared with School of Science & Informatics non-presence data (2009-11).

An analysis of the data shown in Table 6 reveals that non-presence rates for Institute and School students, stages 1 – 4 inclusive, in the period 2009-11, is generally similar to the non-presence rates estimated for the relevant fields of study for the

sector as a whole based on the HEA data for 2007-08. CIT as a whole performs slightly better than the sector as a whole during stage 1 but loses a little ground in the later stages of programmes. The Department of Biological Sciences performs a little better than estimated sector-wide comparator used, the Department of Chemistry non-presence rate exhibits more volatility than the estimated sector-wide comparator used, the Department of Applied Physics & Instrumentation performs well versus the sector-wide estimate in stages 1 and 2 before becoming more volatile in stages 3 and 4, and the Department of Computing's performance tends to average near estimated sector-wide levels.

One needs to be careful when comparing the non-presence performance of HEIs against each other or against sector averages. The 2010 HEA report highlights the fact that student progression is heavily influenced by a wide range of factors such as social background, performance in the Leaving Certificate, field of study selected and NFQ level of selected programme. An extract from the HEA report is shown in Table 7 which emphasises this point.

6.3.3 Non-Progression across Institutes of Technology (NFQ Level 6 & 7 Courses only)

Appendix Table D4 displays non-progression odds for level 6 and level 7 students across the institutes of technology. The results are summarised in Figure 20 below. What is immediately clear, and of great importance, is that these institutions, for the most part, do not differ significantly in their non-progression rates among level 6 and level 7 students, *ceteris paribus*. With the exception of lower non-progression chances in Dublin Institute of Technology, relative to the reference, the Institute of Technology, Blanchardstown, no other institution differs significantly to that reference group. This is a significant finding and reinforces the importance of taking account of student intake in comparing institutional effectiveness and the importance of comparing within as well as across higher education sectors.

Figure 20: Non-Progression Odds for Institutes of Technology, Unadjusted & Controlling for Additional Individual Characteristics
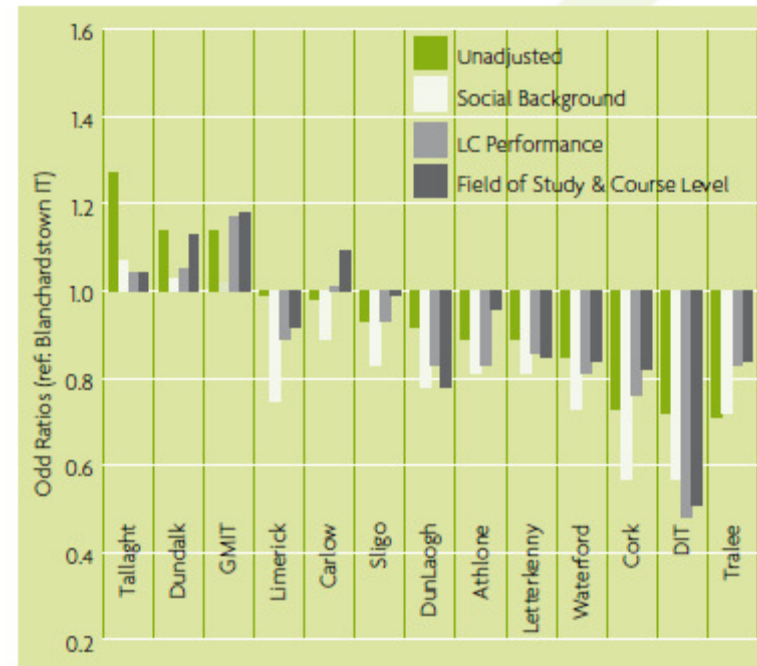
Table 7: Selected Extracts from HEA report of 2010 re: non-presence in IoTs, 2007-08, controlling for individual characteristics

The chart shown in Table 7 shows the odds of student non-presence by Institute, for NFQ levels 6 and 7, over the interval 2007-08, and highlights the fact that, when individual student characteristics are considered, many of Ireland's IoTs perform to a quite consistent standard.

While the HEA report of 2010 provides very useful reference material from across Ireland's HE sector in relation to student non-presence, it does not provide a comprehensive analysis of progression within original programme of study against which

to compare the School's performance. In an effort to place the School's progression performance in context, Table 8 has been developed to provide details of the progression rates for the Institute as a whole and for the School and its constituent Departments over the period 2009-2011.

Period	Unit	Pass	Repeat / Defer	Transfer	Left	Total	Pass%	Repeat / Defer%	Transfer%	Left%
2009-2011	CIT	14,962	1,559	585	2,461	19,567	76.5%	8.0%	3.0%	12.6%
2009-2011	School of Science & Informatics	1,739	260	95	356	2,450	71.0%	10.6%	3.9%	14.5%
2009-2011	Department of Physics & Instrumentation	171	20	12	38	241	71.0%	8.3%	5.0%	15.8%
2009-2011	Department of Biological Sciences	933	77	35	117	1,162	80.3%	6.6%	3.0%	10.1%
2009-2011	Department of Chemistry	167	37	9	40	253	66.0%	14.6%	3.6%	15.8%
2009-2011	Department of Computing	468	126	39	161	794	58.9%	15.9%	4.9%	20.3%

Table 8: Institute, School and Departmental Progression Rates, 2009-2011

The School's progression performance over the period under analysis is somewhat lower that that of the Institute as a whole. However, in light of the differences in performance in evidence across fields of study in the HEA report, this is no surprise. The

Department of Biological Sciences surpasses or matches the Institute progression performance under every heading listed in Table 8. Demand for programmes offered by this Department has remained robust in recent years and, with high numbers of Leaving Certificate students studying Biology, CAO entry points for the programmes offered have remained consistently strong. The Department of Applied Physics & Instrumentation operates at close to the School average progression performance. Considering the technical nature of the programmes taught in this department, this is quite a positive result. The Department of Chemistry is suffering somewhat as a consequence of reducing demand and CAO points required for course entry. The Department of Computing is operating in what is known to be Ireland's most difficult field of study from a progression perspective.

Regardless of the School's current progression performance, it is clear that significant scope exists across all areas of the School to improve student progression rates. While the School's performance could be considered to be reasonable when viewed against that of the sector as a whole, it is clear that the sector can do much to improve students' experience of Higher Education. The following sections provide details of actions that the School has taken, and will take in the future, in this context.

Measures taken to maximise student progression and retention rates in the School of Science and Informatics

The School of Science and Informatics has consistently sought to maximise student progression and retention rates across all of its programmes.

In line with its direct experience and with the analysis provided in the HEA progression report of 2010, the School recognises that improvements in progression and retention can only be achieved through sustained effort and though the pursuit of multifaceted approaches. The 2010 HEA report highlights the fact that student retention is heavily influenced by factors such as field of study, social background, performance in the Leaving Certificate (with Mathematics and English being particularly important subjects in this context), grant eligibility, gender and students advance expectations and understanding of their selected programme of study. In addition, it is evident from information supplied by CIT's Learning Support Centre (LSC) and from other sources that the provision of learning supports for students makes a difference. For example, 78% of all the students who attended the LSC summer programme passed their autumn examination while only 54% of the overall body of repeating students achieved a pass. In addition, it is generally recognised that student academic performance in stage 1 of a programme is very important to subsequent retention as significant numbers of students across higher education are lost in the first year of their studies.

In any discussion that relates to progression performance, it is important to ensure that the quality of learning achieved respects fully the educational standards that apply. It would be easy to maximise the progression performance of the School of Science & Informatics at the expense of "cutting corners" in programme delivery and learning. This course of action will not be pursued by the School.

In order to consistently improve student retention, the School has implemented a series of focussed initiatives over time. These include those described below.

1. The Learning Support Centre opened in September 2005 as a retention initiative funded by the HEA IT Investment fund and under the aegis of the Head of Development at CIT. The Centre provides support to students across all courses and years in the subject areas of Mathematics, Physics, Programming and Electronics. The Centre is a dedicated area comprising of a suite of rooms to cater for group sessions and one-to-one sessions, with an adjoining office for supervision and management. The Centre also has a library, photocopying facilities and several computers with internet access and relevant subject software. School staff support the operation of the Centre and refer students to the Centre, as required.

2. Removed terminal assessment for science students during semester 1 of their studies and adopted the continuous assessment approach only for this phase of a student's time in CIT. The objective of this initiative is to maximise the chances of students successfully completing semester 1 in order to build their confidence to continue onwards in their selected programmes of study subsequently.

3. Use the Creativity, Innovation and Teamwork (CIT) module in semester 1 to help students learn appropriate study techniques. In some cases, students construct blogs of their experiences in first year while also connecting with careers advisers. Company visits to IT companies have also been organised as part of the delivery of this module to help computing students understand the context within which they are studying.

4. Explored new teaching and learning approaches in areas in which retention difficulties have been persistently encountered, e.g. use of problem-based learning in programming and problem solving.

5. Improved the structure of student induction processes with a particular focus on the early weeks in a student's time in CIT.

6. Established a mentoring (buddy) system on a pilot basis for Biomedical Science students with a view to rolling this out across the School in due course. The aim of this initiative is to provide peer support to students as they settle into life in CIT.

7. Implemented level 7 and 8 common entry options for science programmes as a means of attracting and retaining 'undecided' students

8. Attempted to optimally match students' academic ability with their programme selection in CIT. In general this has resulted in increasing minimum entry requirements for programmes as can be seen from Attachments AA to QQ, inclusive.

9. Promote relevant training programmes from the Institute's Teaching & Learning unit and from other sources to CIT lecturing staff

10. Implemented a wide range of initiatives to better promote the School so that prospective applicants will be well-informed re: the programmes provided by the School and that applicants who will have a good chance of achieving success in the School's programmes will be encouraged to apply for entry to them. Initiatives include the following:

    a. Redesigned all of the School's brochures in line with a consistent Institute-wide standard

    b. Distributed brochures to every home in the greater Cork region on two occasions

    c. Participated in the development of the Institute's YouTube channel and prepared contemporary videos of all of the School's CAO programmes (www.youtube.com/cit) as well as contributing to the development of the core messages which these videos were developed (see Faculty social media strategy for details)

    d. Participated strongly in the Institute's fast-developing internationalisation programme

11. Host SciFest (a highly successful competition for young scientists who wish to gain experience of exhibiting their projects) on an annual basis. A winner of the Young Scientist award (Richard O'Shea) initially competed in SciFest in CIT.

12. Operated the "CIT Student for a Day" initiative on a pilot basis for a number of schools in the greater Cork region.

13. Supported the development of the Institute's social media presence on Facebook and Twitter.

14. Frequently submit articles to the local press and relevant websites.

15. In conjunction with it@cork, have driven the development of the excite, engage and educate primary and secondary school students in information technology - see http://www.cit.ie/currentnews?id=196 for further details

16. Frequently participate in education exhibitions, school visits and presentations to guidance counsellors organised by the School and Institute

Over the interval studied (2009-2011), the implementation of these measures has resulted in the changes seen in Attachment A and summarised here:

- School student population increased from 467 to 700 students

- Student progression rates in the year of study increased from 68.8% to 74.2%

- Student repeat/deferral rates reduced from 10.9% to 8.6%

- Student transfer rates from the School to other areas of CIT reduced from 5.4% to 3.3%

- Exit of School students from CIT reduced from 14.9% to 14%

- With the exception of the Dept of Chemistry, the progression rates of students in the year of study have increased for all departments of the School

The School proposes to continue to develop the most successful of the above-listed initiatives and to also implement the initiatives set out in the School Strategic Plan.

School Strategic Plan

Specific retention and recruitment objectives have been set out in the School's Strategic Plan. These are included here for the sake of completeness.

Student Retention

The School recognises that retention will always be an important issue and, in particular, amongst stage 1 students. ***The School has set as a minimum target to improve to Institute average performance across all departments through strategic initiatives.***

To this end the School will continue to pursue the retention initiatives described earlier in this document and adopt the following objectives:

a) Develop a common Level 6 Essential Mathematics module that all students on all 1st year programmes within the School must undertake. This will improve Mathematics skills and retention. This will run from Semester 1, 2011.

b) Better engage with students in the critical first 6 weeks of semester 1. Staff student forums will run in this period to better engage with students. The use of e-technologies such as twitters, blogs and wikis will be integrated into the Creativity Innovation and Teamwork Module to engage students with the activities of the Institute and various departments within the School. This has worked very successfully in a pilot scheme run with year 1 BSc Hons Biomedical Sciences students and will be rolled out to all programmes within the School.

c) Develop an e-buddy system whereby year 1 students will be linked up with year 2 students on their programme of study. Training will be provided to year 2 students. This again worked very successfully in a pilot scheme run with year 1 BSc Hons Biomedical Sciences students and will be rolled out to all programmes within the School.

d) Continue to support the Learning Support Centre and improve methods for early detection of students who need additional support.

Student Recruitment

In addition to the recruitment of students locally who will have every chance of succeeding in the School's programmes, the School recognises the fact that the need for 'non-traditional' students will become greater in third and fourth-level education in Ireland over the next decade.

To this end, the school proposes to undertake the following activities over the next 3 years:

a) Establish a stronger international student cohort in CIT based upon strategic partnerships with:
   * University of Darmstadt, Germany, in the provision of joint postgraduate research studentships (MSc /PhD) in Software research.
   * Dalian Polytechnic University, China, in the provision of studentships leading to BSc (Hons) in Software Development.
   * Hubei University and Wuhan University of Technology, China, in the provision of studentships leading to BSc (Hons) in Pharmaceutical Biotechnology and BSc Hons in Nutrition and Health Sciences
   * University of Pune, India, in the provision of joint postgraduate research studentships (MSc /PhD) in Biological and Chemical Sciences.

b) Engage with Further Education Colleges in Cork City (St John's College, Cork College of Commerce, Colaiste Stiofain Naofa**)** and County (Mallow Community College, Kinsale Community College) to allow access to successful FETAC level 5 and 6 students onto year 1 and in some cases year 2 of courses within the School. Places will be restricted to specific courses and upon successful achievement of agreed entry standards.

Summary

The School of Science and Informatics has focussed strongly on improving its progression and retention performance for many years. This work has borne fruit with student pass rates increasing without any dilution of teaching standards. However, the School fully realises that significant scope for further improvement exists and it is determined to ensure that student progression and retention will continue to be treated as priority areas by all members of the School. The School is fully conscious of its obligations to students and determined to ensure that the time they spend in CIT will be highly beneficial to them.

ATTACHMENTS

A - Student Progression Trends – School of Science & Informatics

Faculty	Faculty of Engineering & Science
School	School of Science & Informatics
Department	(All)
Prog	(All)
Stage	(All)

Year	Pass	Repeat / Defer	Transfer	Left	Total	Pass%	Repeat / Defer%	Transfer%	Left%
2009	467	74	37	101	679	68.8%	10.9%	5.4%	14.9%
2010	572	105	27	123	827	69.2%	12.7%	3.3%	14.9%
2011	700	81	31	132	944	74.2%	8.6%	3.3%	14.0%

Year	Data	Total
2009	Sum of Pass	467
	Sum of Rep-Def	74
	Sum of Transfer	37
	Sum of Left	101
2010	Sum of Pass	572
	Sum of Rep-Def	105
	Sum of Transfer	27
	Sum of Left	123
2011	Sum of Pass	700
	Sum of Rep-Def	81
	Sum of Transfer	31
	Sum of Left	132
Total Sum of Pass		1739
Total Sum of Rep-Def		260
Total Sum of Transfer		95
Total Sum of Left		356

Progression Trends - Absolute

Progression Trends - Relative

B - Student Progression Trends – Department of Applied Physics & Instrumentation

Faculty	Faculty of Engineering & Science
School	School of Science & Informatics
Department	Department of Applied Physics & Instrumentation
Prog	(All)
Stage	(All)

Year	Pass	Repeat / Defer	Transfer	Left	Total	Pass%	Repeat / Defer%	Transfer%	Left%
2009	43	10	6	10	69	62.3%	14.5%	8.7%	14.5%
2010	55	7	1	10	73	75.3%	9.6%	1.4%	13.7%
2011	73	3	5	18	99	73.7%	3.0%	5.1%	18.2%

Year	Data	Total
2009	Sum of Pass	43
	Sum of Rep-Def	10
	Sum of Transfer	6
	Sum of Left	10
2010	Sum of Pass	55
	Sum of Rep-Def	7
	Sum of Transfer	1
	Sum of Left	10
2011	Sum of Pass	73
	Sum of Rep-Def	3
	Sum of Transfer	5
	Sum of Left	18
Total Sum of Pass		171
Total Sum of Rep-Def		20
Total Sum of Transfer		12
Total Sum of Left		38

Progression Trends - Absolute

Progression Trends - Relative
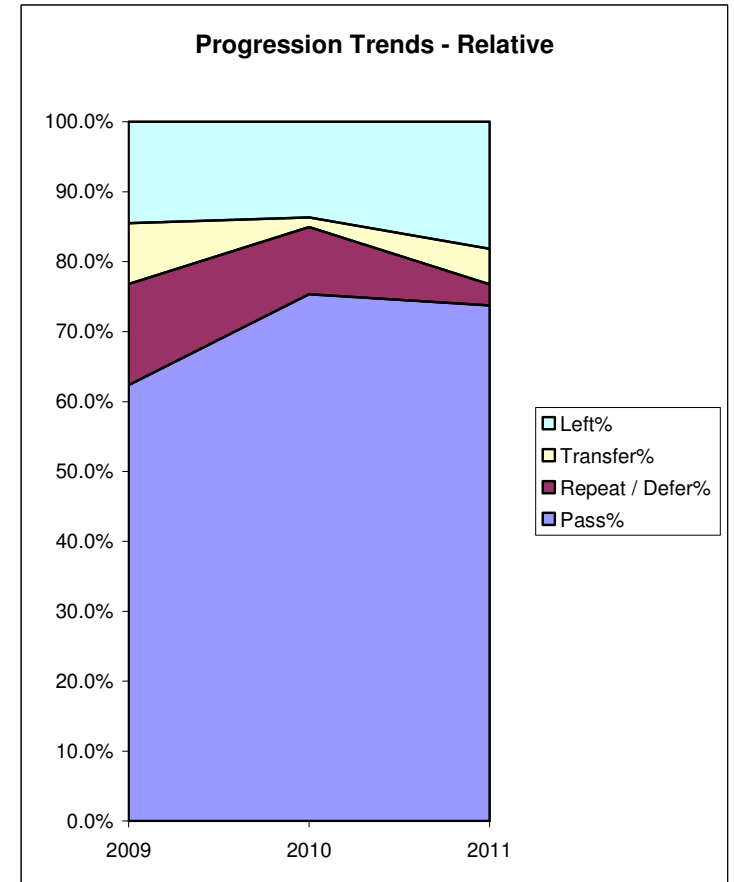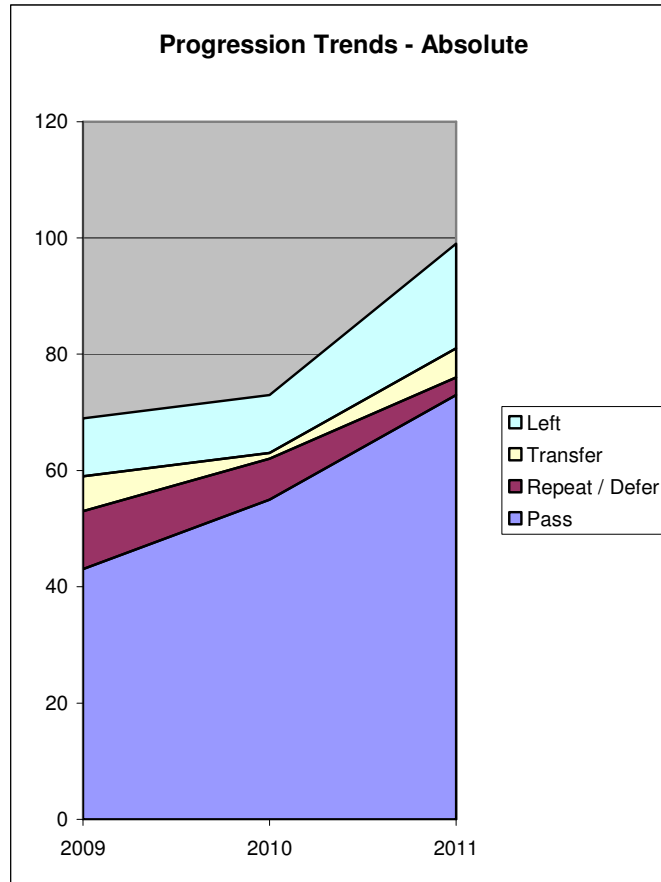
C - Student Progression Trends – Department of Biological Sciences

Faculty	Faculty of Engineering & Science
School	School of Science & Informatics
Department	Department of Biological Sciences
Prog	(All)
Stage	(All)

Year	Pass	Repeat / Defer	Transfer	Left	Total	Pass%	Repeat / Defer%	Transfer%	Left%
2009	225	13	14	30	282	79.8%	4.6%	5.0%	10.6%
2010	310	35	10	47	402	77.1%	8.7%	2.5%	11.7%
2011	398	29	11	40	478	83.3%	6.1%	2.3%	8.4%

Year	Data	Total
2009	Sum of Pass	225
	Sum of Rep-Def	13
	Sum of Transfer	14
	Sum of Left	30
2010	Sum of Pass	310
	Sum of Rep-Def	35
	Sum of Transfer	10
	Sum of Left	47
2011	Sum of Pass	398
	Sum of Rep-Def	29
	Sum of Transfer	11
	Sum of Left	40
Total Sum of Pass		933
Total Sum of Rep-Def		77
Total Sum of Transfer		35
Total Sum of Left		117

Progression Trends - Absolute

Progression Trends - Relative
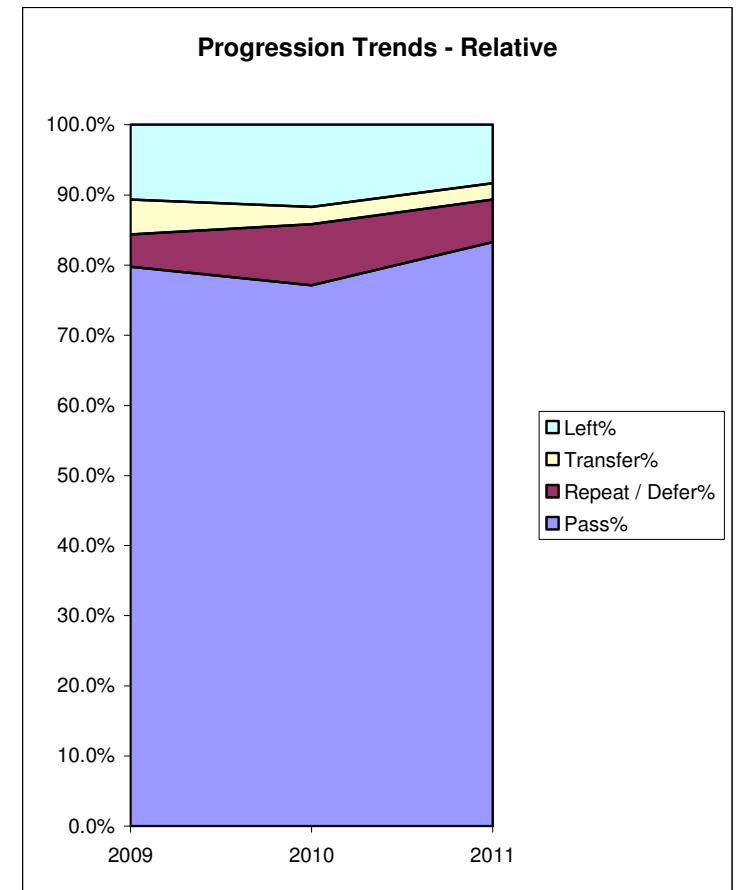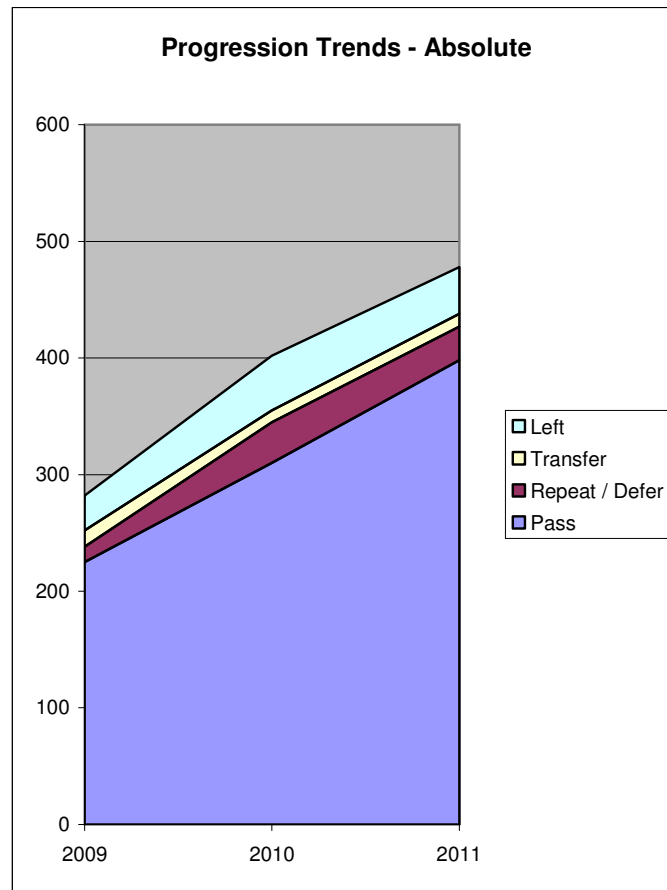
D -Student Progression Trends – Department of Chemistry

Faculty	Faculty of Engineering & Science
School	School of Science & Informatics
Department	Department of Chemistry
Prog	(All)
Stage	(All)

Year	Pass	Repeat / Defer	Transfer	Left	Total	Pass%	Repeat / Defer%	Transfer%	Left%
2009	57	7	4	8	76	75.0%	9.2%	5.3%	10.5%
2010	55	15	3	14	87	63.2%	17.2%	3.4%	16.1%
2011	55	15	2	18	90	61.1%	16.7%	2.2%	20.0%

Year	Data	Total
2009	Sum of Pass	57
	Sum of Rep-Def	7
	Sum of Transfer	4
	Sum of Left	8
2010	Sum of Pass	55
	Sum of Rep-Def	15
	Sum of Transfer	3
	Sum of Left	14
2011	Sum of Pass	55
	Sum of Rep-Def	15
	Sum of Transfer	2
	Sum of Left	18
Total Sum of Pass		167
Total Sum of Rep-Def		37
Total Sum of Transfer		9
Total Sum of Left		40
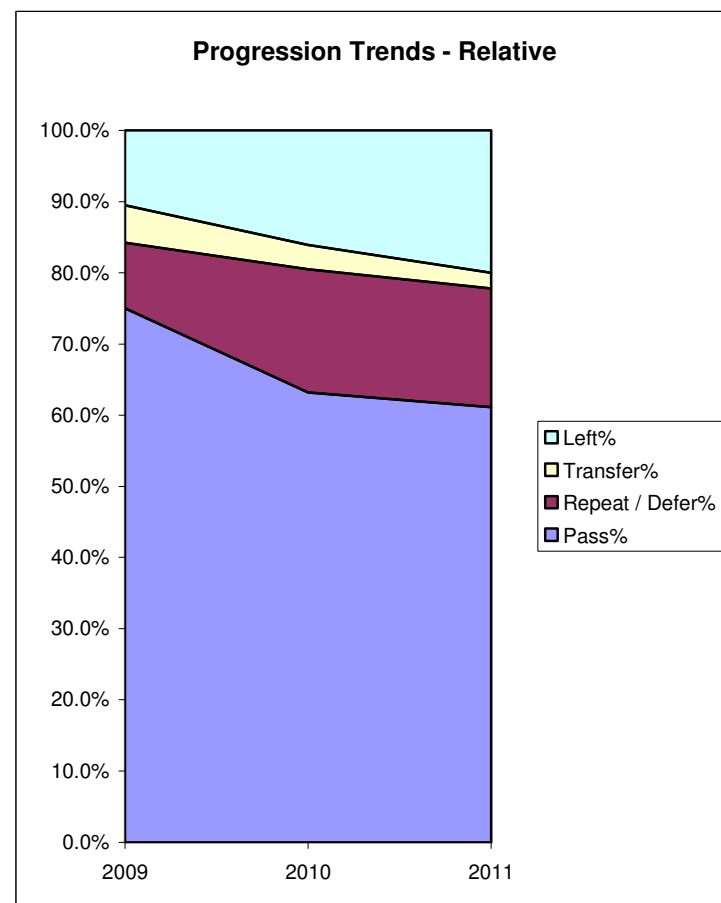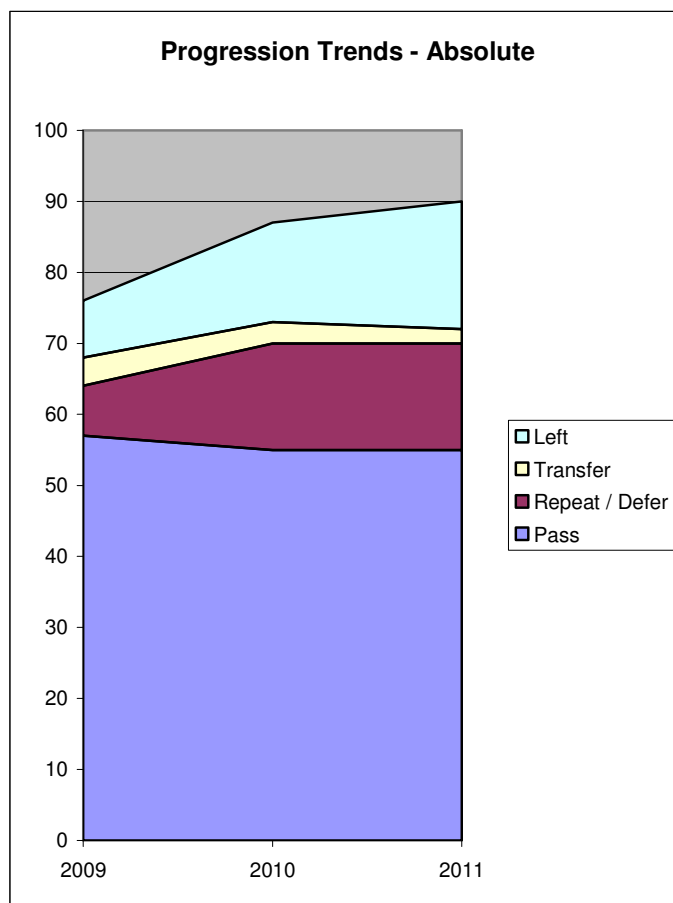
Progression Trends - Absolute

Progression Trends - Relative

E - Student Progression Trends – Department of Computing

Faculty	Faculty of Engineering & Science
School	School of Science & Informatics
Department	Department of Computing
Prog	(All)
Stage	(All)

Year	Pass	Repeat / Defer	Transfer	Left	Total	Pass%	Repeat / Defer%	Transfer%	Left%
2009	142	44	13	53	252	56.3%	17.5%	5.2%	21.0%
2010	152	48	13	52	265	57.4%	18.1%	4.9%	19.6%
2011	174	34	13	56	277	62.8%	12.3%	4.7%	20.2%

Year	Data	Total
2009	Sum of Pass	142
	Sum of Rep-Def	44
	Sum of Transfer	13
	Sum of Left	53
2010	Sum of Pass	152
	Sum of Rep-Def	48
	Sum of Transfer	13
	Sum of Left	52
2011	Sum of Pass	174
	Sum of Rep-Def	34
	Sum of Transfer	13
	Sum of Left	56
Total Sum of Pass		468
Total Sum of Rep-Def		126
Total Sum of Transfer		39
Total Sum of Left		161

Progression Trends - Absolute

Progression Trends - Relative
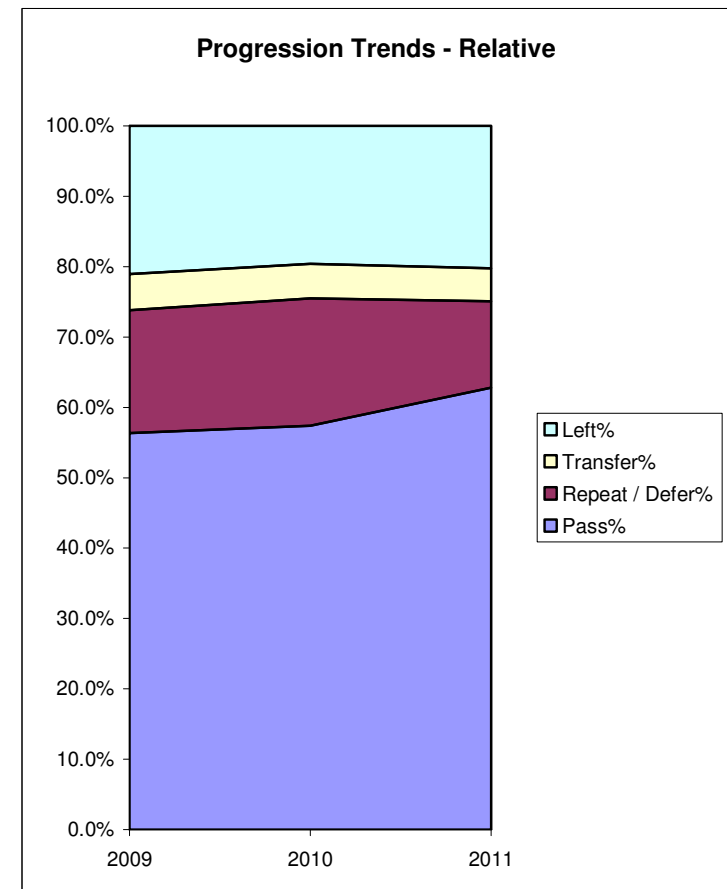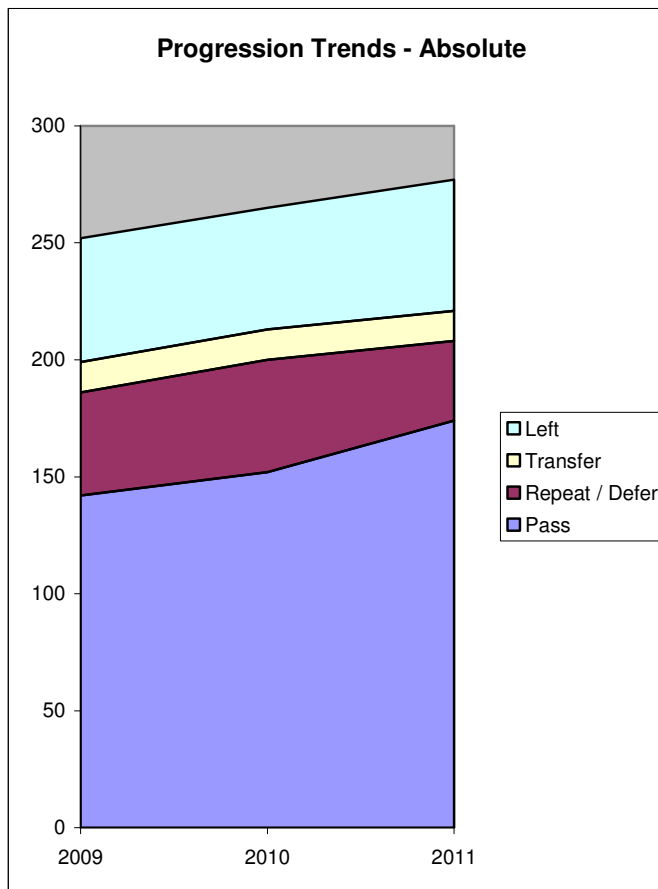
F- Student Progression Trends – School of Science & Informatics – Stage 1

Faculty	Faculty of Engineering & Science
School	School of Science & Informatics
Department	(All)
Prog	(All)
Stage	1

Year	Pass	Repeat / Defer	Transfer	Left	Total	Pass%	Repeat / Defer%	Transfer%	Left%
2009	140	25	20	55	240	58.3%	10.4%	8.3%	22.9%
2010	204	49	17	88	358	57.0%	13.7%	4.7%	24.6%
2011	256	32	24	67	379	67.5%	8.4%	6.3%	17.7%

Year	Data	Total
2009	Sum of Pass	140
	Sum of Rep-Def	25
	Sum of Transfer	20
	Sum of Left	55
2010	Sum of Pass	204
	Sum of Rep-Def	49
	Sum of Transfer	17
	Sum of Left	88
2011	Sum of Pass	256
	Sum of Rep-Def	32
	Sum of Transfer	24
	Sum of Left	67
Total Sum of Pass		600
Total Sum of Rep-Def		106
Total Sum of Transfer		61
Total Sum of Left		210

Progression Trends - Absolute

Progression Trends - Relative

G - Student Progression Trends – School of Science & Informatics – Stage 2

Faculty	Faculty of Engineering & Science
School	School of Science & Informatics
Department	(All)
Prog	(All)
Stage	2

Year	Pass	Repeat / Defer	Transfer	Left	Total	Pass%	Repeat / Defer%	Transfer%	Left%
2009	112	33	9	17	171	65.5%	19.3%	5.3%	9.9%
2010	138	25	8	19	190	72.6%	13.2%	4.2%	10.0%
2011	179	30	4	33	246	72.8%	12.2%	1.6%	13.4%

Year	Data	Total
2009	Sum of Pass	112
	Sum of Rep-Def	33
	Sum of Transfer	9
	Sum of Left	17
2010	Sum of Pass	138
	Sum of Rep-Def	25
	Sum of Transfer	8
	Sum of Left	19
2011	Sum of Pass	179
	Sum of Rep-Def	30
	Sum of Transfer	4
	Sum of Left	33
Total Sum of Pass		429
Total Sum of Rep-Def		88
Total Sum of Transfer		21
Total Sum of Left		69

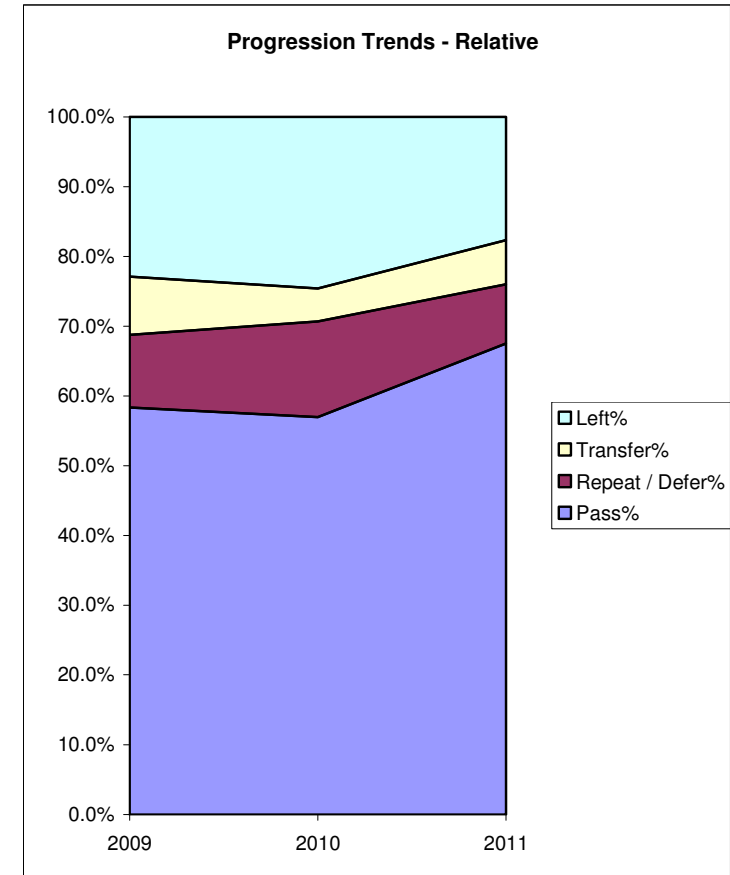Progression Trends - Absolute
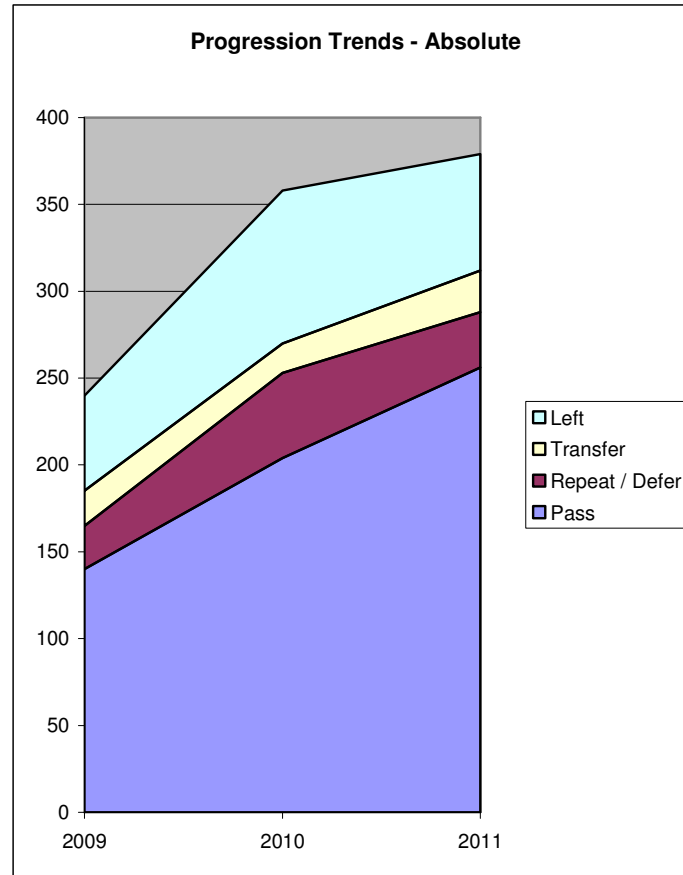

Progression Trends - Relative

H - Student Progression Trends – School of Science & Informatics – Stage 3

Faculty	Faculty of Engineering & Science
School	School of Science & Informatics
Department	(All)
Prog	(All)
Stage	3

Year	Pass	Repeat / Defer	Transfer	Left	Total	Pass%	Repeat / Defer%	Transfer%	Left%
2009	135	12	7	16	170	79.4%	7.1%	4.1%	9.4%
2010	145	16	2	9	172	84.3%	9.3%	1.2%	5.2%
2011	180	15	3	15	213	84.5%	7.0%	1.4%	7.0%

Year	Data	Total
2009	Sum of Pass	135
	Sum of Rep-Def	12
	Sum of Transfer	7
	Sum of Left	16
2010	Sum of Pass	145
	Sum of Rep-Def	16
	Sum of Transfer	2
	Sum of Left	9
2011	Sum of Pass	180
	Sum of Rep-Def	15
	Sum of Transfer	3
	Sum of Left	15
Total Sum of Pass		460
Total Sum of Rep-Def		43
Total Sum of Transfer		12
Total Sum of Left		40

Progression Trends - Absolute
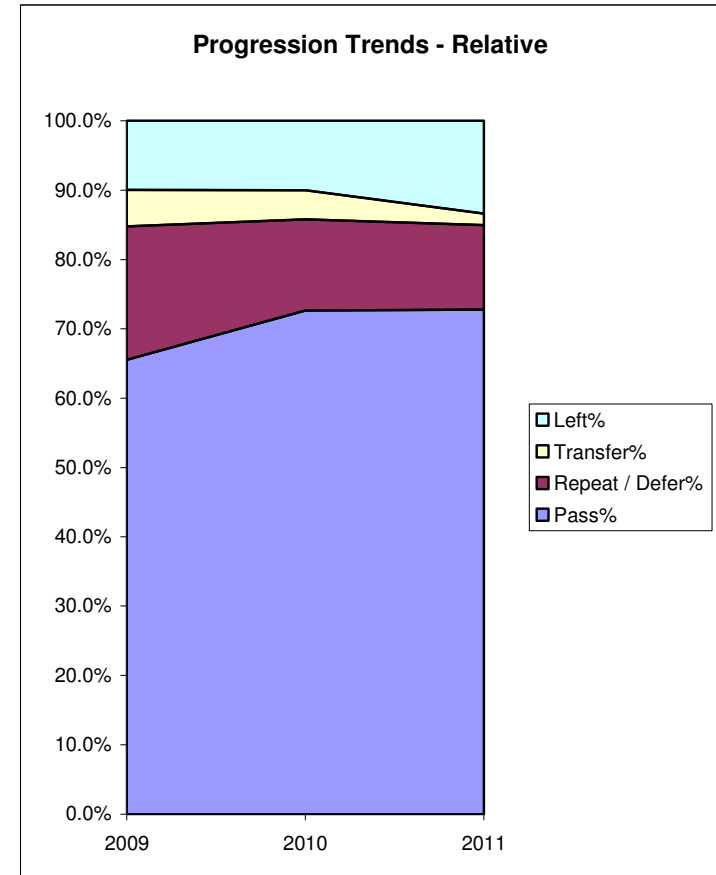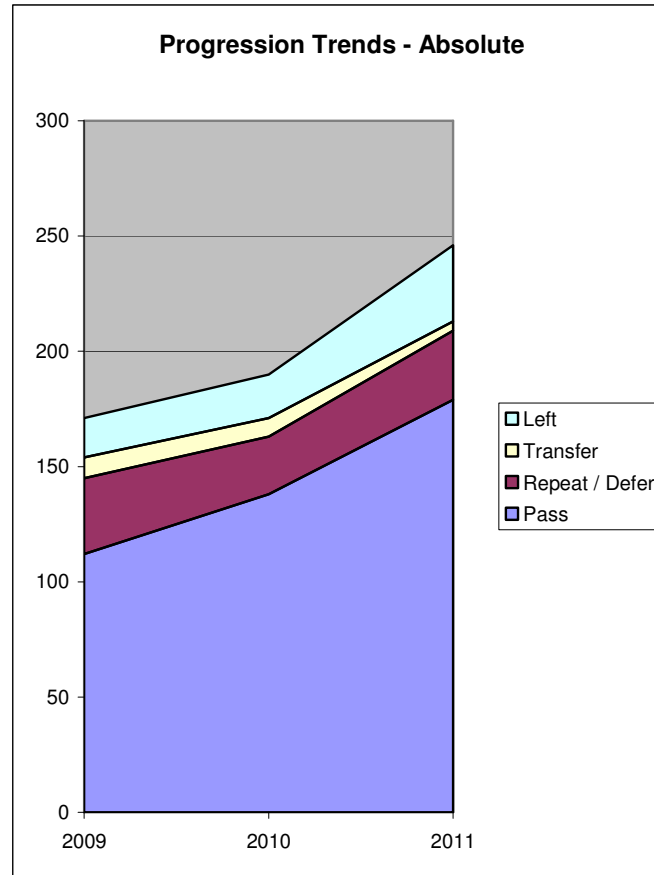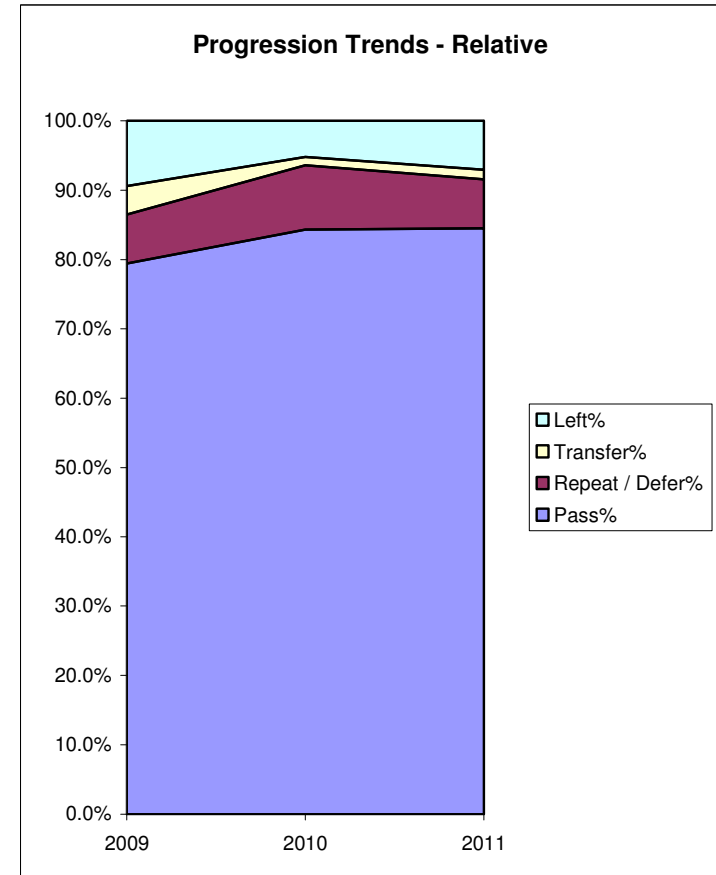

Progression Trends - Relative

30
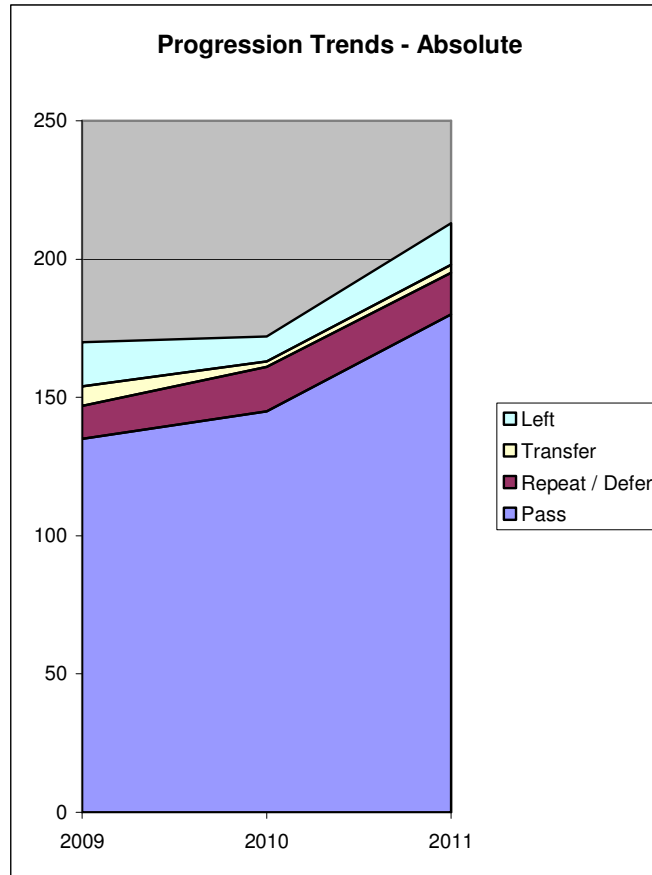
I - Student Progression Trends – School of Science & Informatics – Stage 4

Faculty	Faculty of Engineering & Science
School	School of Science & Informatics
Department	(All)
Prog	(All)
Stage	4

Year	Pass	Repeat / Defer	Transfer	Left	Total	Pass%	Repeat / Defer%	Transfer%	Left%
2009	80	4	1	13	98	81.6%	4.1%	1.0%	13.3%
2010	85	15	0	7	107	79.4%	14.0%	0.0%	6.5%
2011	85	4	0	17	106	80.2%	3.8%	0.0%	16.0%

Year	Data	Total
2009	Sum of Pass	80
	Sum of Rep-Def	4
	Sum of Transfer	1
	Sum of Left	13
2010	Sum of Pass	85
	Sum of Rep-Def	15
	Sum of Transfer	0
	Sum of Left	7
2011	Sum of Pass	85
	Sum of Rep-Def	4
	Sum of Transfer	0
	Sum of Left	17
Total Sum of Pass		250
Total Sum of Rep-Def		23
Total Sum of Transfer		1
Total Sum of Left		37

Progression Trends - Absolute

Progression Trends - Relative
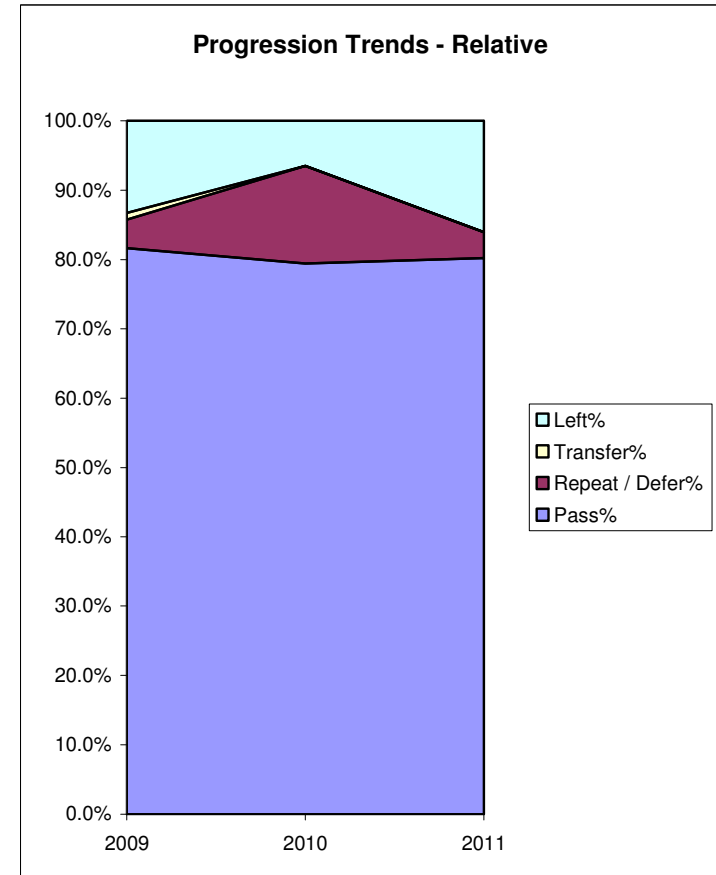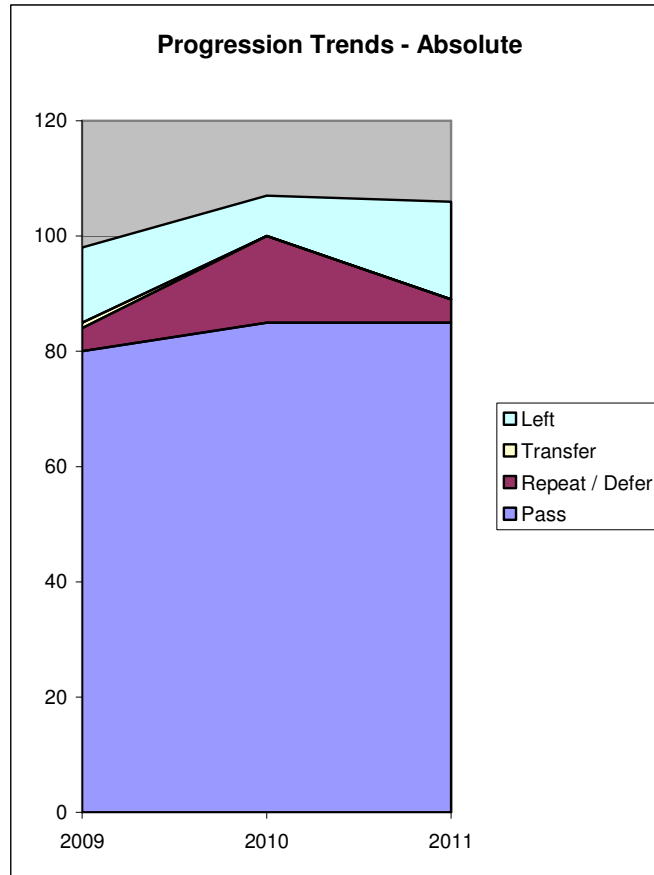
J - Student Progression Trends – Department of Applied Physics and Instrumentation – Stage 1

Faculty	Faculty of Engineering & Science
School	School of Science & Informatics
Department	Department of Applied Physics & Instrumentation
Prog	(All)
Stage	1

Year	Pass	Repeat / Defer	Transfer	Left	Total	Pass%	Repeat / Defer%	Transfer%	Left%
2009	5	0	5	2	12	41.7%	0.0%	41.7%	16.7%
2010	14	1	1	6	22	63.6%	4.5%	4.5%	27.3%
2011	29	1	4	11	45	64.4%	2.2%	8.9%	24.4%

Year	Data	Total
2009	Sum of Pass	5
	Sum of Rep-Def	0
	Sum of Transfer	5
	Sum of Left	2
2010	Sum of Pass	14
	Sum of Rep-Def	1
	Sum of Transfer	1
	Sum of Left	6
2011	Sum of Pass	29
	Sum of Rep-Def	1
	Sum of Transfer	4
	Sum of Left	11
Total Sum of Pass		48
Total Sum of Rep-Def		2
Total Sum of Transfer		10
Total Sum of Left		19

Progression Trends - Absolute

Progression Trends - Relative

32

K - Student Progression Trends – Department of Applied Physics and Instrumentation – Stage 2

Faculty	Faculty of Engineering & Science
School	School of Science & Informatics
Department	Department of Applied Physics & Instrumentation
Prog	(All)
Stage	2

Year	Pass	Repeat / Defer	Transfer	Left	Total	Pass%	Repeat / Defer%	Transfer%	Left%
2009	15	7	0	2	24	62.5%	29.2%	0.0%	8.3%
2010	12	0	0	1	13	92.3%	0.0%	0.0%	7.7%
2011	13	1	0	1	15	86.7%	6.7%	0.0%	6.7%

Year	Data	Total
2009	Sum of Pass	15
	Sum of Rep-Def	7
	Sum of Transfer	0
	Sum of Left	2
2010	Sum of Pass	12
	Sum of Rep-Def	0
	Sum of Transfer	0
	Sum of Left	1
2011	Sum of Pass	13
	Sum of Rep-Def	1
	Sum of Transfer	0
	Sum of Left	1
Total Sum of Pass		40
Total Sum of Rep-Def		8
Total Sum of Transfer		0
Total Sum of Left		4

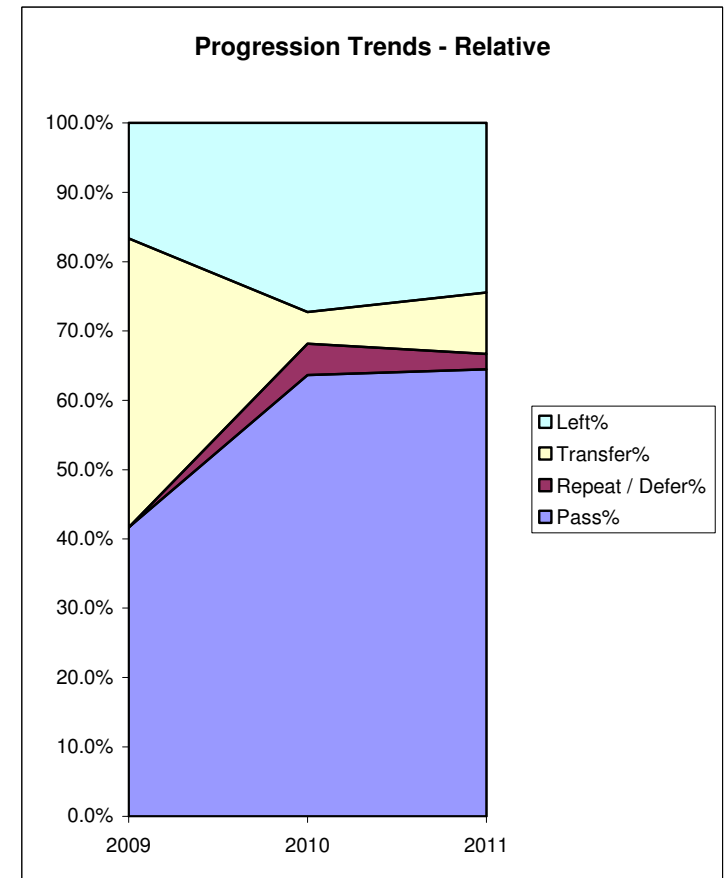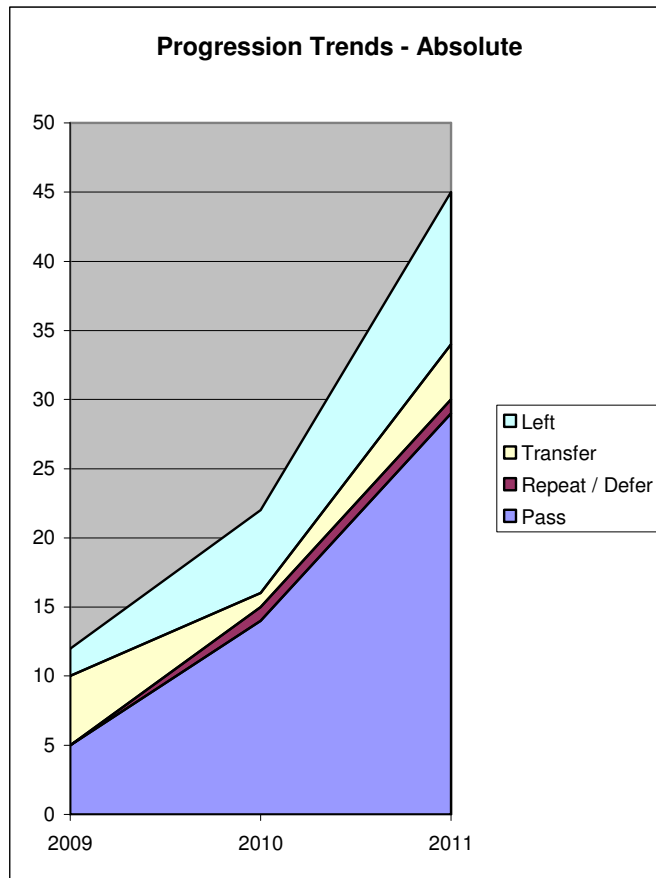
Progression Trends - Absolute

Progression Trends - Relative

L - Student Progression Trends – Department of Applied Physics and Instrumentation – Stage 3

Faculty	Faculty of Engineering & Science
School	School of Science & Informatics
Department	Department of Applied Physics & Instrumentation
Prog	(All)
Stage	3

Year	Pass	Repeat / Defer	Transfer	Left	Total	Pass%	Repeat / Defer%	Transfer%	Left%
2009	9	2	1	5	17	52.9%	11.8%	5.9%	29.4%
2010	20	3	0	1	24	83.3%	12.5%	0.0%	4.2%
2011	15	0	1	0	16	93.8%	0.0%	6.3%	0.0%

Year	Data	Total
2009	Sum of Pass	9
	Sum of Rep-Def	2
	Sum of Transfer	1
	Sum of Left	5
2010	Sum of Pass	20
	Sum of Rep-Def	3
	Sum of Transfer	0
	Sum of Left	1
2011	Sum of Pass	15
	Sum of Rep-Def	0
	Sum of Transfer	1
	Sum of Left	0
Total Sum of Pass		44
Total Sum of Rep-Def		5
Total Sum of Transfer		2
Total Sum of Left		6

Progression Trends - Absolute

Progression Trends - Relative

34

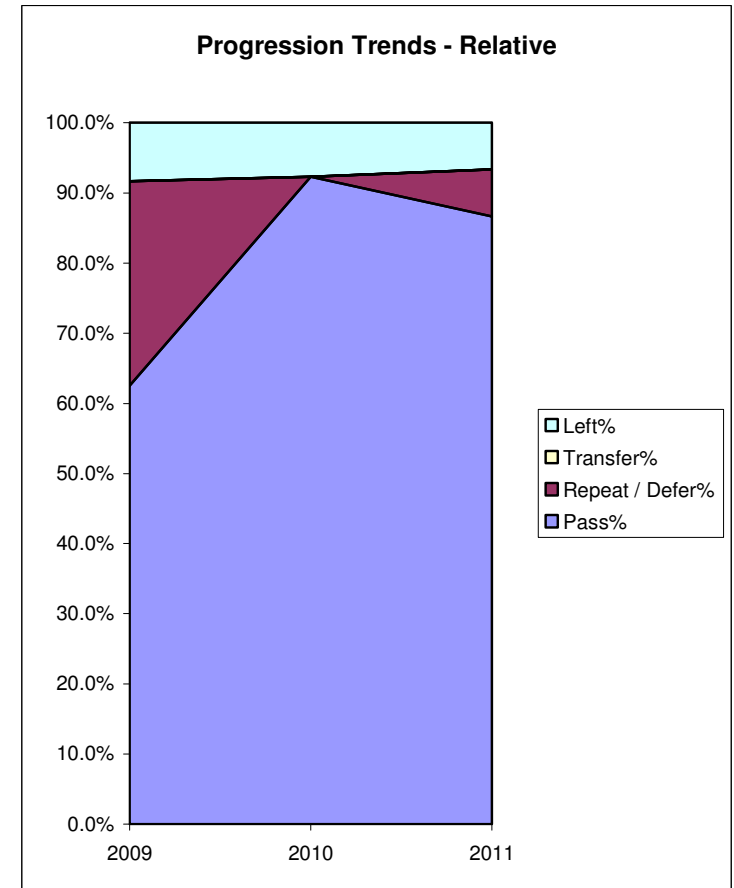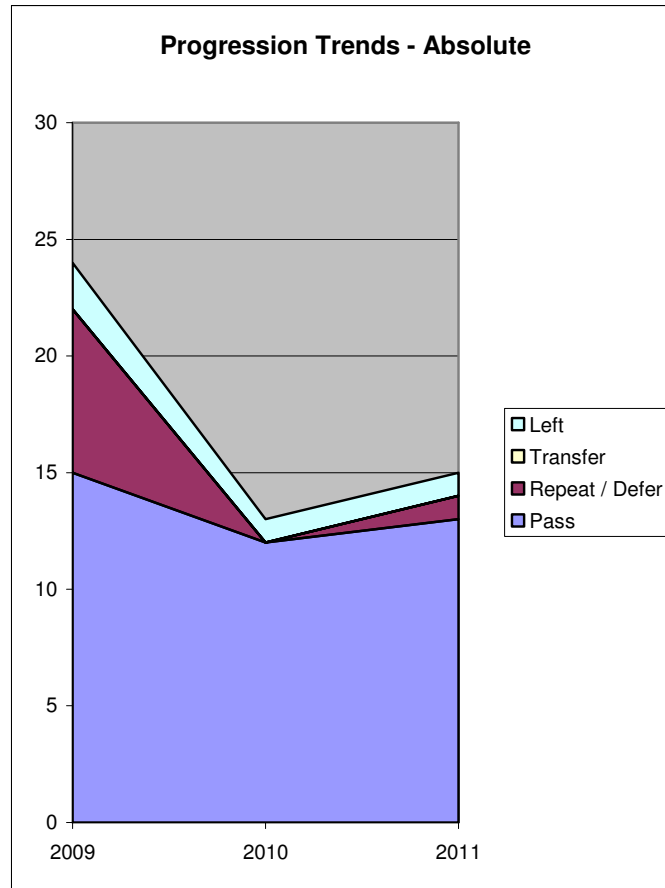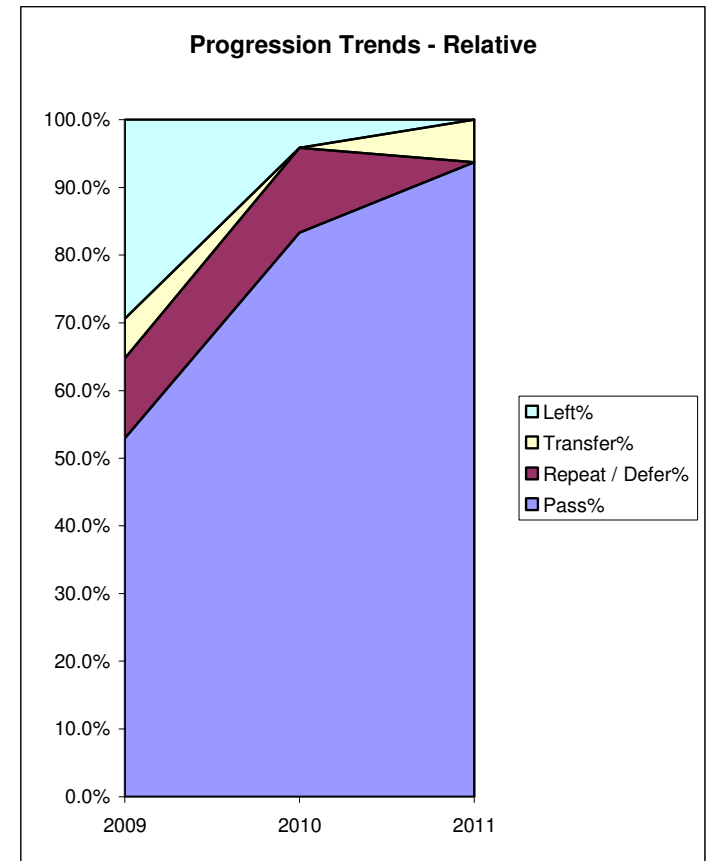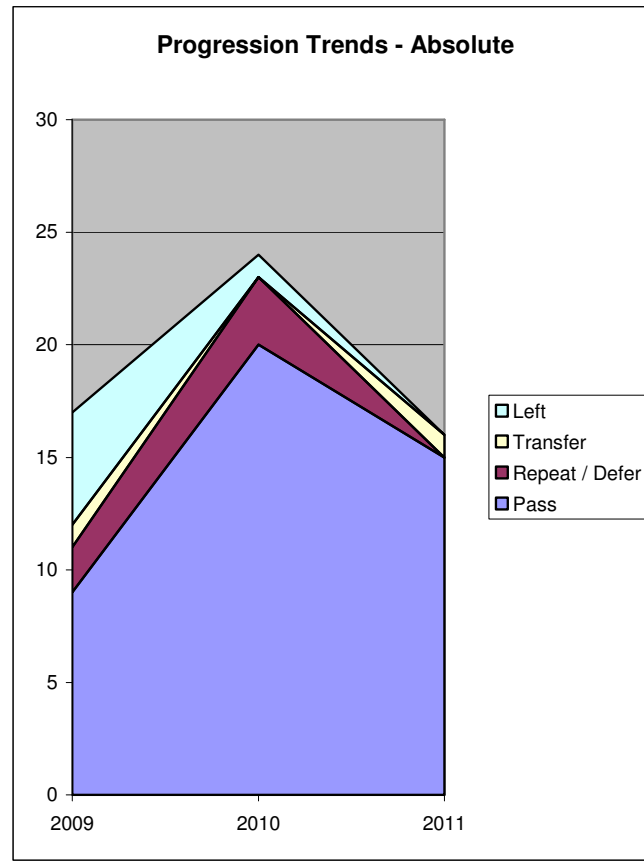# M - Student Progression Trends – Department of Applied Physics and Instrumentation – Stage 4

Faculty	Faculty of Engineering & Science
School	School of Science & Informatics
Department	Department of Applied Physics & Instrumentation
Prog	(All)
Stage	4

Year	Pass	Repeat / Defer	Transfer	Left	Total	Pass%	Repeat / Defer%	Transfer%	Left%
2009	14	1	0	1	16	87.5%	6.3%	0.0%	6.3%
2010	9	3	0	2	14	64.3%	21.4%	0.0%	14.3%
2011	16	1	0	6	23	69.6%	4.3%	0.0%	26.1%

Year	Data	Total
2009	Sum of Pass	14
	Sum of Rep-Def	1
	Sum of Transfer	0
	Sum of Left	1
2010	Sum of Pass	9
	Sum of Rep-Def	3
	Sum of Transfer	0
	Sum of Left	2
2011	Sum of Pass	16
	Sum of Rep-Def	1
	Sum of Transfer	0
	Sum of Left	6
Total Sum of Pass		39
Total Sum of Rep-Def		5
Total Sum of Transfer		0
Total Sum of Left		9

Progression Trends - Absolute

Progression Trends - Relative
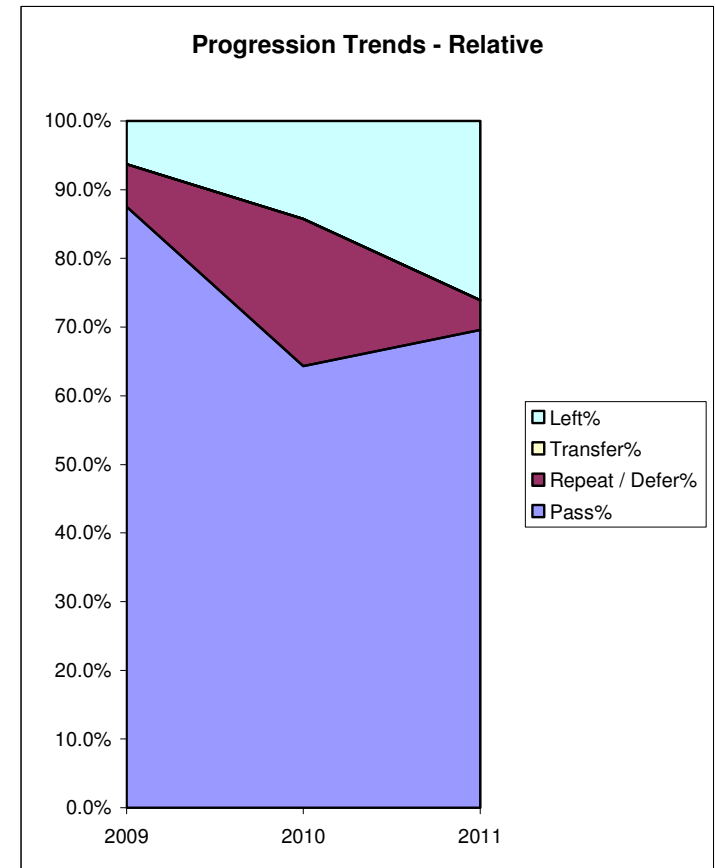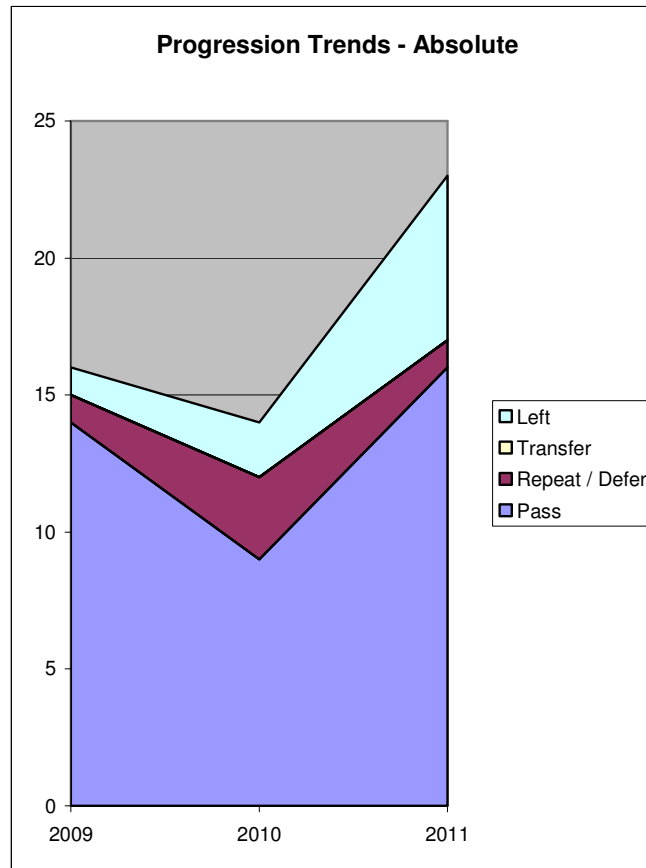
N - Student Progression Trends – Department of Biological Sciences – Stage 1

Faculty	Faculty of Engineering & Science
School	School of Science & Informatics
Department	Department of Biological Sciences
Prog	(All)
Stage	1

Year	Pass	Repeat / Defer	Transfer	Left	Total	Pass%	Repeat / Defer%	Transfer%	Left%
2009	65	2	5	16	88	73.9%	2.3%	5.7%	18.2%
2010	129	27	7	36	199	64.8%	13.6%	3.5%	18.1%
2011	144	11	7	19	181	79.6%	6.1%	3.9%	10.5%

Year	Data	Total
2009	Sum of Pass	65
	Sum of Rep-Def	2
	Sum of Transfer	5
	Sum of Left	16
2010	Sum of Pass	129
	Sum of Rep-Def	27
	Sum of Transfer	7
	Sum of Left	36
2011	Sum of Pass	144
	Sum of Rep-Def	11
	Sum of Transfer	7
	Sum of Left	19
Total Sum of Pass		338
Total Sum of Rep-Def		40
Total Sum of Transfer		19
Total Sum of Left		71

Progression Trends - Absolute

Progression Trends - Relative

O - Student Progression Trends – Department of Biological Sciences – Stage 2

Faculty	Faculty of Engineering & Science
School	School of Science & Informatics
Department	Department of Biological Sciences
Prog	(All)
Stage	2

Year	Pass	Repeat / Defer	Transfer	Left	Total	Pass%	Repeat / Defer%	Transfer%	Left%
2009	59	11	6	7	83	71.1%	13.3%	7.2%	8.4%
2010	72	4	2	6	84	85.7%	4.8%	2.4%	7.1%
2011	114	14	2	11	141	80.9%	9.9%	1.4%	7.8%

Year	Data	Total
2009	Sum of Pass	59
	Sum of Rep-Def	11
	Sum of Transfer	6
	Sum of Left	7
2010	Sum of Pass	72
	Sum of Rep-Def	4
	Sum of Transfer	2
	Sum of Left	6
2011	Sum of Pass	114
	Sum of Rep-Def	14
	Sum of Transfer	2
	Sum of Left	11
Total Sum of Pass		245
Total Sum of Rep-Def		29
Total Sum of Transfer		10
Total Sum of Left		24

Progression Trends - Absolute

Progression Trends - Relative

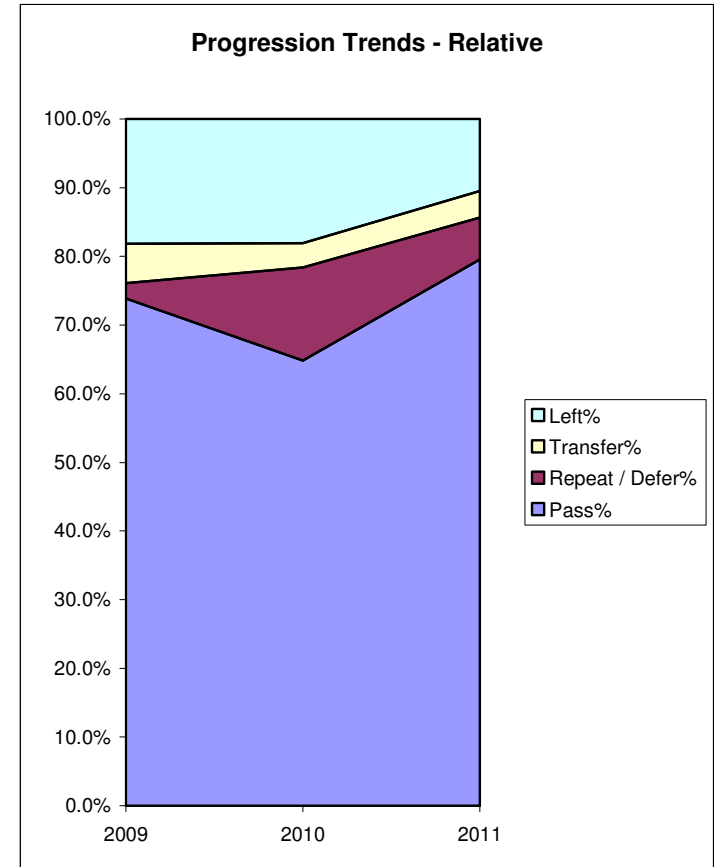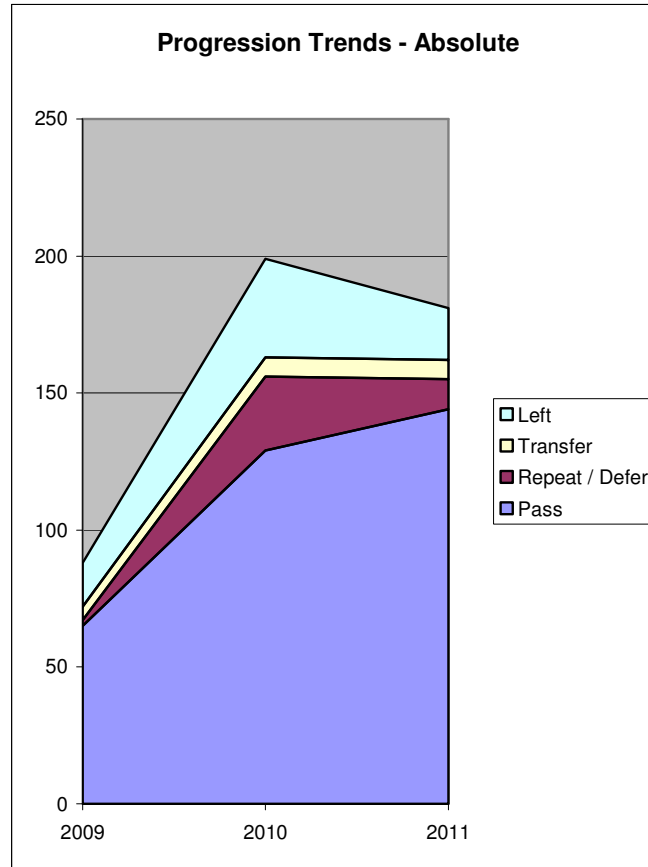# P - Student Progression Trends – Department of Biological Sciences – Stage 3

Faculty	Faculty of Engineering & Science
School	School of Science & Informatics
Department	Department of Biological Sciences
Prog	(All)
Stage	3

Year	Pass	Repeat / Defer	Transfer	Left	Total	Pass%	Repeat / Defer%	Transfer%	Left%
2009	68	0	2	0	70	97.1%	0.0%	2.9%	0.0%
2010	66	2	1	3	72	91.7%	2.8%	1.4%	4.2%
2011	108	4	2	5	119	90.8%	3.4%	1.7%	4.2%

Year	Data	Total
2009	Sum of Pass	68
	Sum of Rep-Def	0
	Sum of Transfer	2
	Sum of Left	0
2010	Sum of Pass	66
	Sum of Rep-Def	2
	Sum of Transfer	1
	Sum of Left	3
2011	Sum of Pass	108
	Sum of Rep-Def	4
	Sum of Transfer	2
	Sum of Left	5
Total Sum of Pass		242
Total Sum of Rep-Def		6
Total Sum of Transfer		5
Total Sum of Left		8

Progression Trends - Absolute
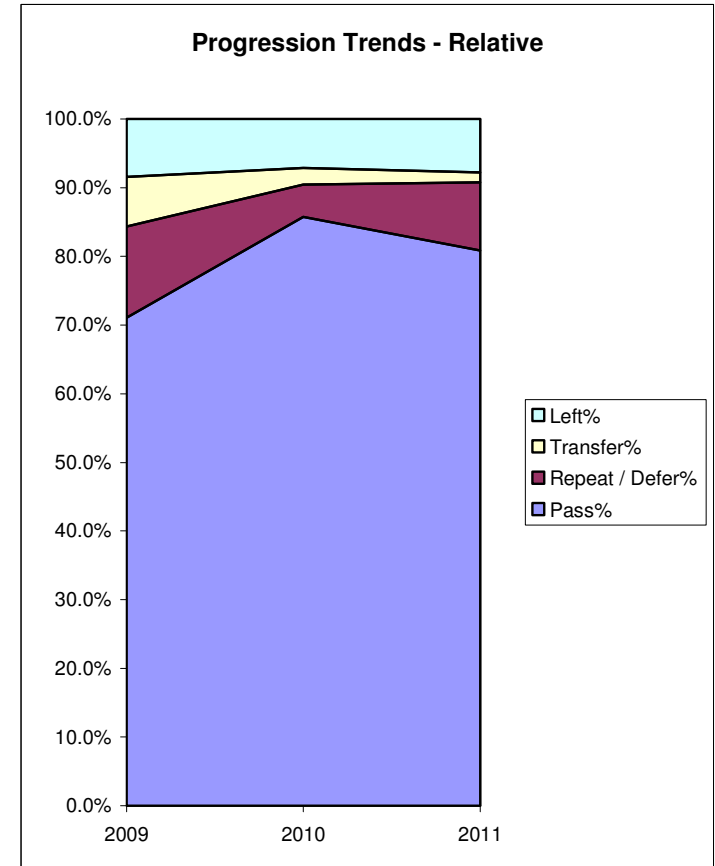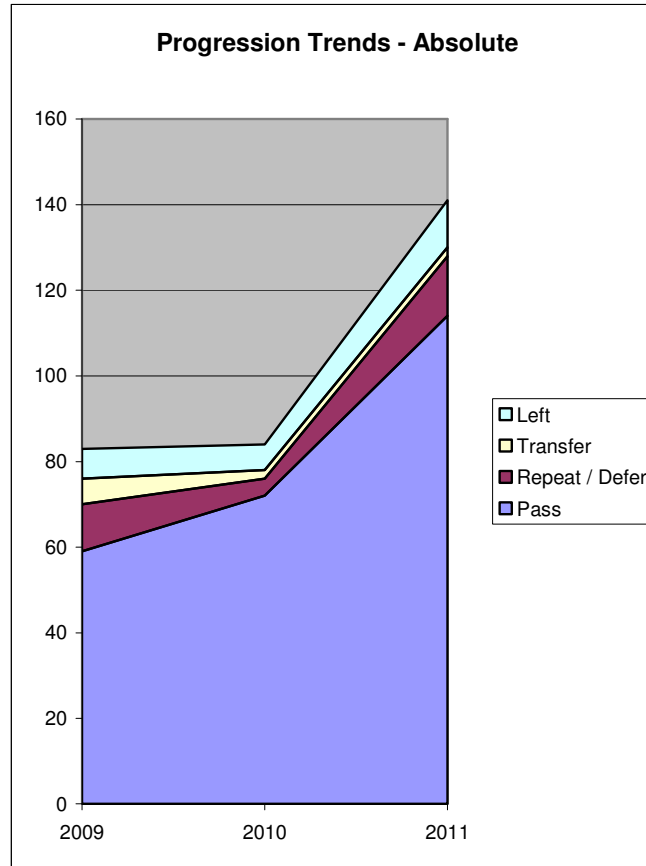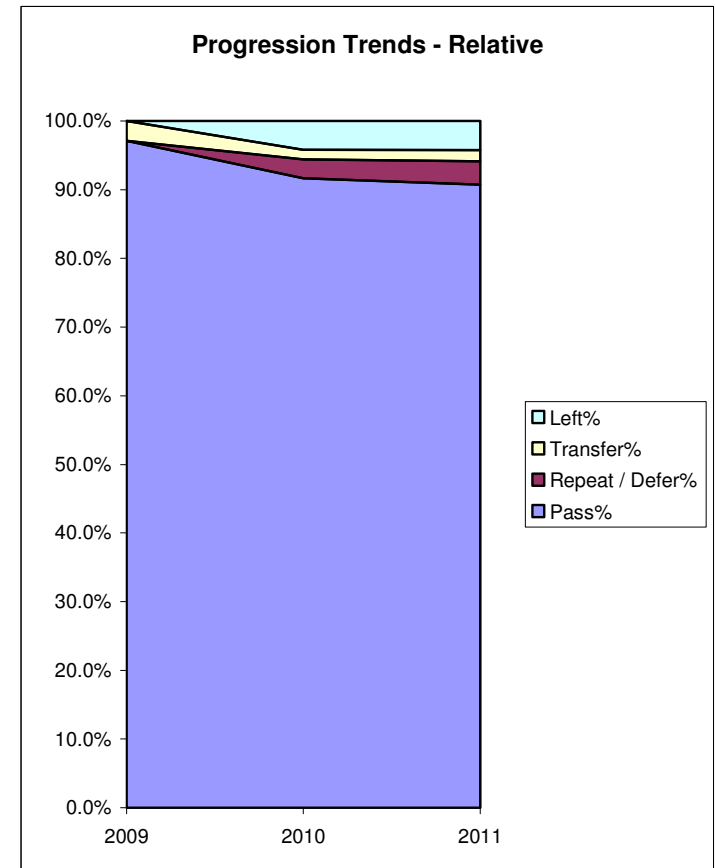

Progression Trends - Relative
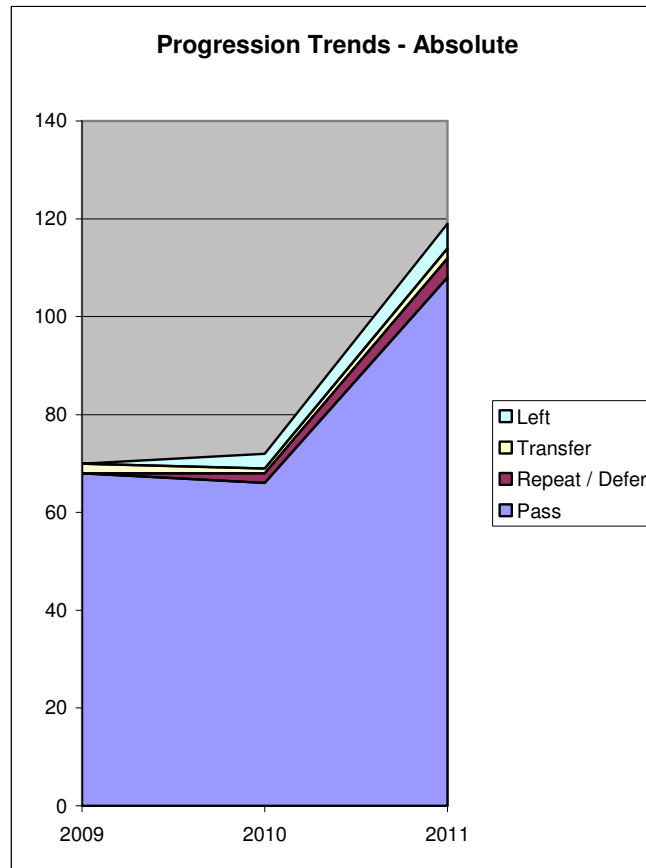
Q - Student Progression Trends – Department of Biological Sciences – Stage 4

Faculty	Faculty of Engineering & Science
School	School of Science & Informatics
Department	Department of Biological Sciences
Prog	(All)
Stage	4

Year	Pass	Repeat / Defer	Transfer	Left	Total	Pass%	Repeat / Defer%	Transfer%	Left%
2009	33	0	1	7	41	80.5%	0.0%	2.4%	17.1%
2010	43	2	0	2	47	91.5%	4.3%	0.0%	4.3%
2011	32	0	0	5	37	86.5%	0.0%	0.0%	13.5%

Year	Data	Total
2009	Sum of Pass	33
	Sum of Rep-Def	0
	Sum of Transfer	1
	Sum of Left	7
2010	Sum of Pass	43
	Sum of Rep-Def	2
	Sum of Transfer	0
	Sum of Left	2
2011	Sum of Pass	32
	Sum of Rep-Def	0
	Sum of Transfer	0
	Sum of Left	5
Total Sum of Pass		108
Total Sum of Rep-Def		2
Total Sum of Transfer		1
Total Sum of Left		14

Progression Trends - Absolute

Progression Trends - Relative

39
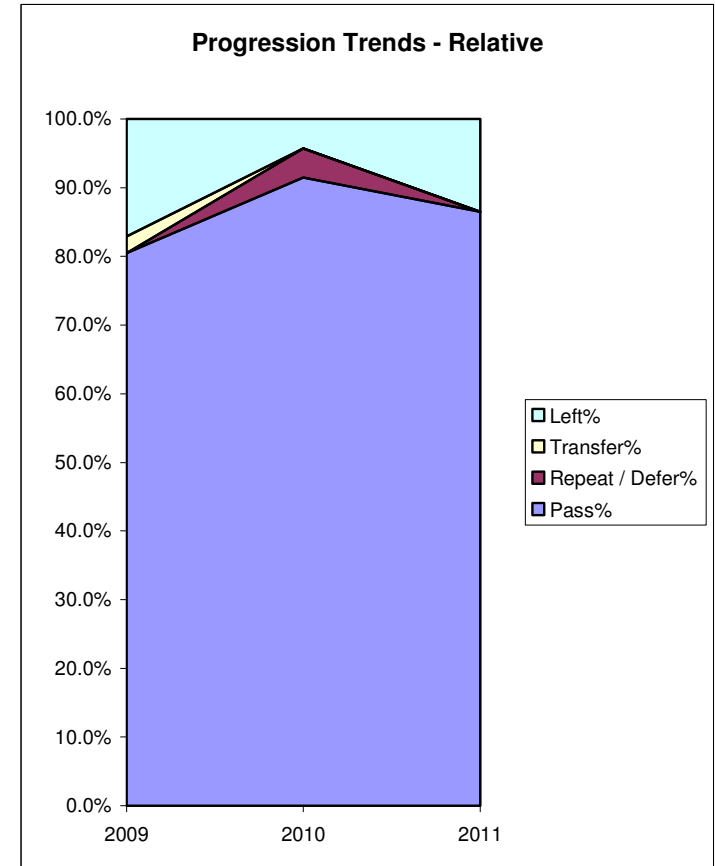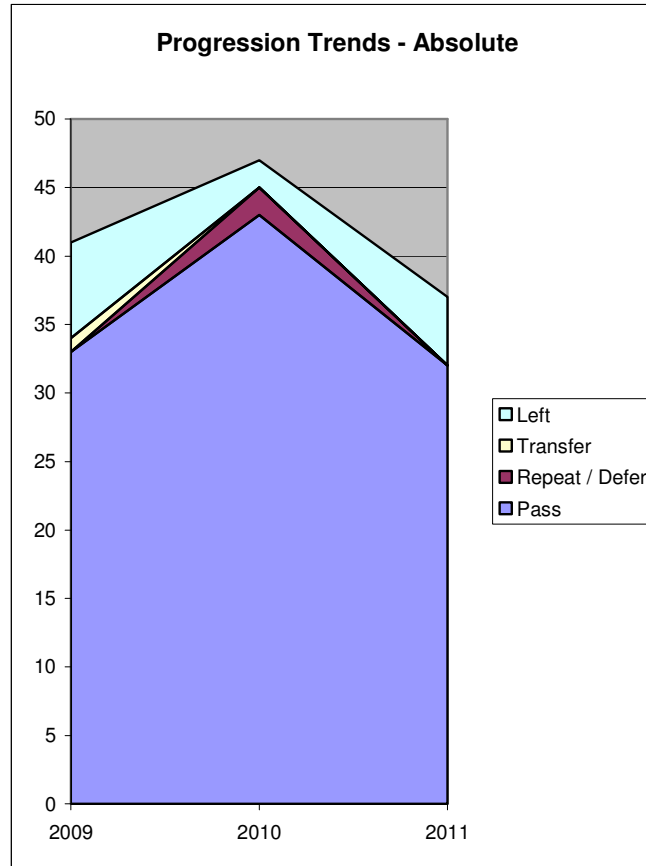
R - Student Progression Trends – Department of Chemistry – Stage 1

Faculty	Faculty of Engineering & Science
School	School of Science & Informatics
Department	Department of Chemistry
Prog	(All)
Stage	1

Year	Pass	Repeat / Defer	Transfer	Left	Total	Pass%	Repeat / Defer%	Transfer%	Left%
2009	20	4	0	4	28	71.4%	14.3%	0.0%	14.3%
2010	8	4	1	10	23	34.8%	17.4%	4.3%	43.5%
2011	22	6	2	9	39	56.4%	15.4%	5.1%	23.1%

Year	Data	Total
2009	Sum of Pass	20
	Sum of Rep-Def	4
	Sum of Transfer	0
	Sum of Left	4
2010	Sum of Pass	8
	Sum of Rep-Def	4
	Sum of Transfer	1
	Sum of Left	10
2011	Sum of Pass	22
	Sum of Rep-Def	6
	Sum of Transfer	2
	Sum of Left	9
Total Sum of Pass		50
Total Sum of Rep-Def		14
Total Sum of Transfer		3
Total Sum of Left		23

Progression Trends - Absolute
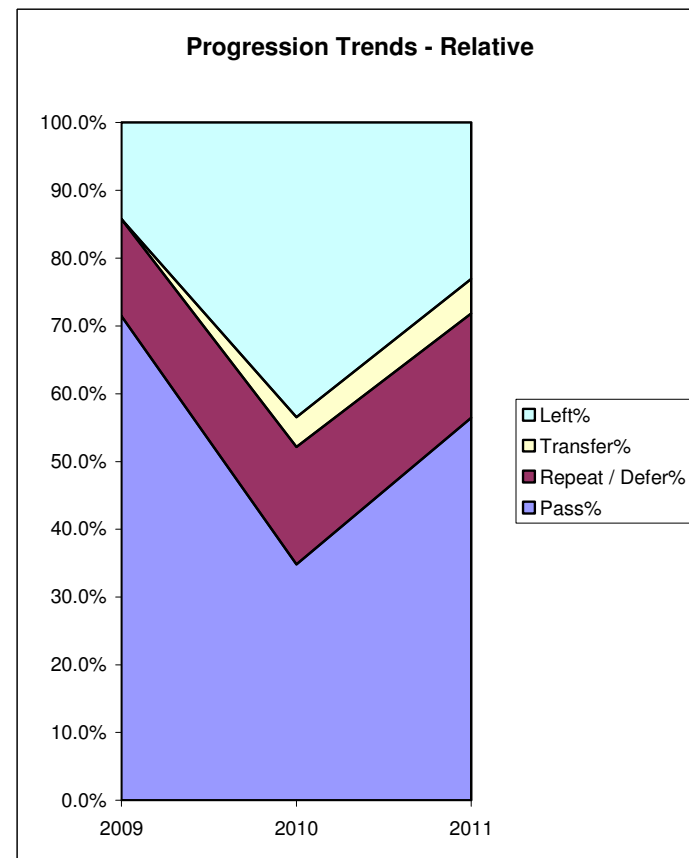

Progression Trends - Relative

S - Student Progression Trends – Department of Chemistry – Stage 2

Faculty	Faculty of Engineering & Science
School	School of Science & Informatics
Department	Department of Chemistry
Prog	(All)
Stage	2

Year	Pass	Repeat / Defer	Transfer	Left	Total	Pass%	Repeat / Defer%	Transfer%	Left%
2009	9	1	1	0	11	81.8%	9.1%	9.1%	0.0%
2010	17	4	1	0	22	77.3%	18.2%	4.5%	0.0%
2011	6	2	0	4	12	50.0%	16.7%	0.0%	33.3%

Year	Data	Total
2009	Sum of Pass	9
	Sum of Rep-Def	1
	Sum of Transfer	1
	Sum of Left	0
2010	Sum of Pass	17
	Sum of Rep-Def	4
	Sum of Transfer	1
	Sum of Left	0
2011	Sum of Pass	6
	Sum of Rep-Def	2
	Sum of Transfer	0
	Sum of Left	4
Total Sum of Pass		32
Total Sum of Rep-Def		7
Total Sum of Transfer		2
Total Sum of Left		4

Progression Trends - Absolute

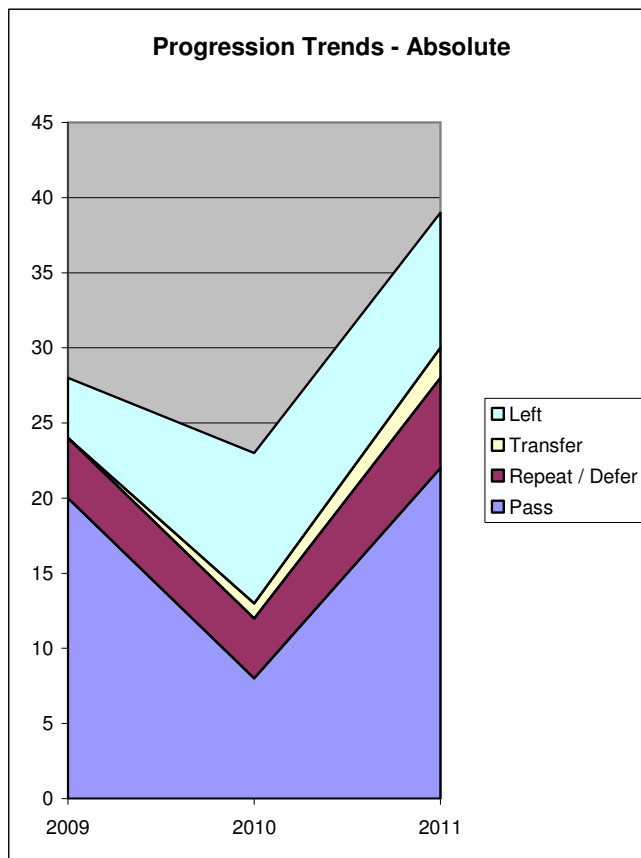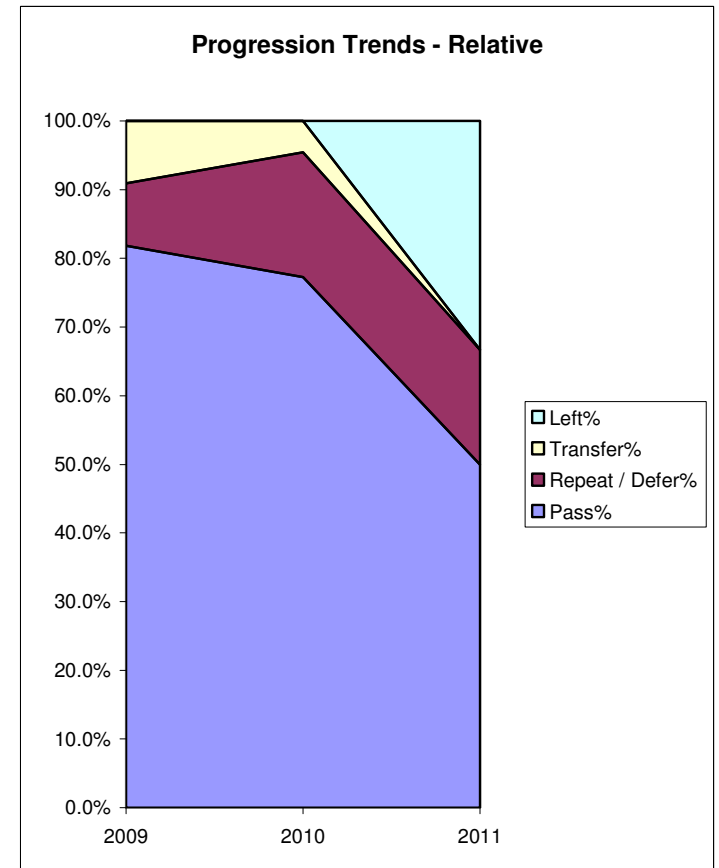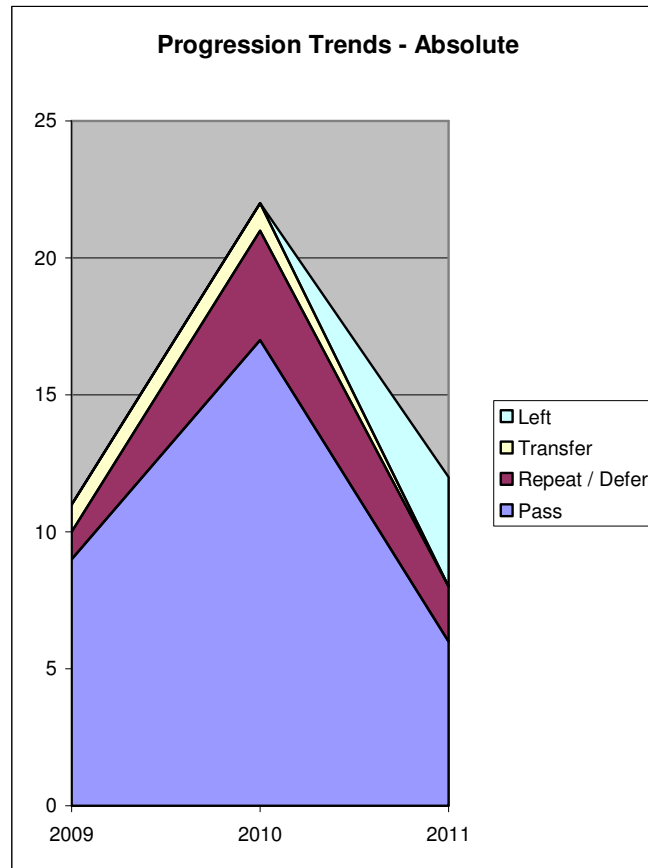Progression Trends - Relative

T - Student Progression Trends – Department of Chemistry – Stage 3

Faculty	Faculty of Engineering & Science
School	School of Science & Informatics
Department	Department of Chemistry
Prog	(All)
Stage	3

Year	Pass	Repeat / Defer	Transfer	Left	Total	Pass%	Repeat / Defer%	Transfer%	Left%
2009	15	2	3	4	24	62.5%	8.3%	12.5%	16.7%
2010	21	4	1	3	29	72.4%	13.8%	3.4%	10.3%
2011	14	6	0	3	23	60.9%	26.1%	0.0%	13.0%

Year	Data	Total
2009	Sum of Pass	15
	Sum of Rep-Def	2
	Sum of Transfer	3
	Sum of Left	4
2010	Sum of Pass	21
	Sum of Rep-Def	4
	Sum of Transfer	1
	Sum of Left	3
2011	Sum of Pass	14
	Sum of Rep-Def	6
	Sum of Transfer	0
	Sum of Left	3
Total Sum of Pass		50
Total Sum of Rep-Def		12
Total Sum of Transfer		4
Total Sum of Left		10

Progression Trends - Absolute

Progression Trends - Relative
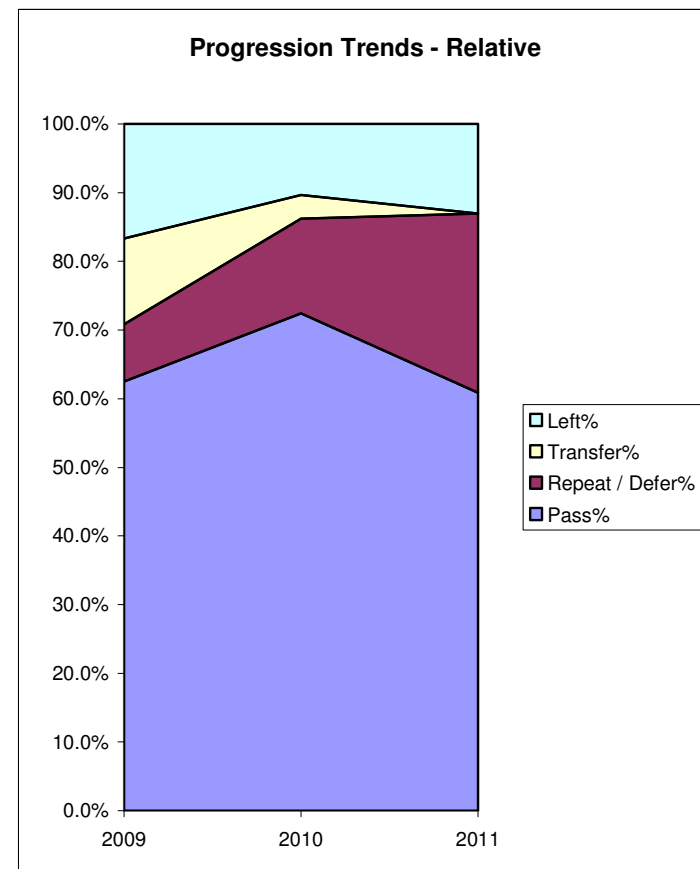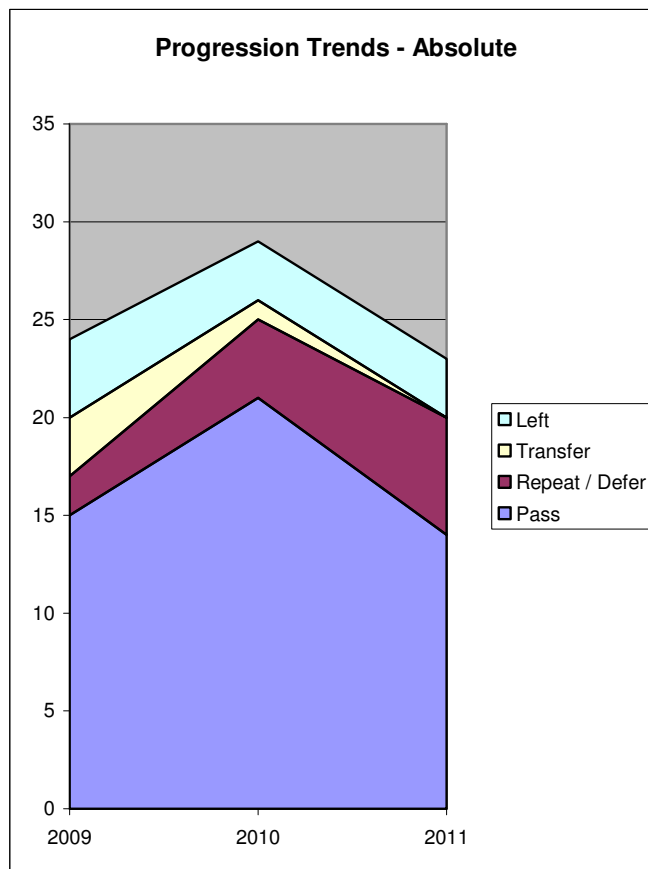
U - Student Progression Trends – Department of Chemistry – Stage 4

Faculty	Faculty of Engineering & Science
School	School of Science & Informatics
Department	Department of Chemistry
Prog	(All)
Stage	4

Year	Pass	Repeat / Defer	Transfer	Left	Total	Pass%	Repeat / Defer%	Transfer%	Left%
2009	13	0	0	0	13	100.0%	0.0%	0.0%	0.0%
2010	9	3	0	1	13	69.2%	23.1%	0.0%	7.7%
2011	13	1	0	2	16	81.3%	6.3%	0.0%	12.5%

Year	Data	Total
2009	Sum of Pass	13
	Sum of Rep-Def	0
	Sum of Transfer	0
	Sum of Left	0
2010	Sum of Pass	9
	Sum of Rep-Def	3
	Sum of Transfer	0
	Sum of Left	1
2011	Sum of Pass	13
	Sum of Rep-Def	1
	Sum of Transfer	0
	Sum of Left	2
Total Sum of Pass		35
Total Sum of Rep-Def		4
Total Sum of Transfer		0
Total Sum of Left		3

Progression Trends - Absolute

Progression Trends - Relative

43
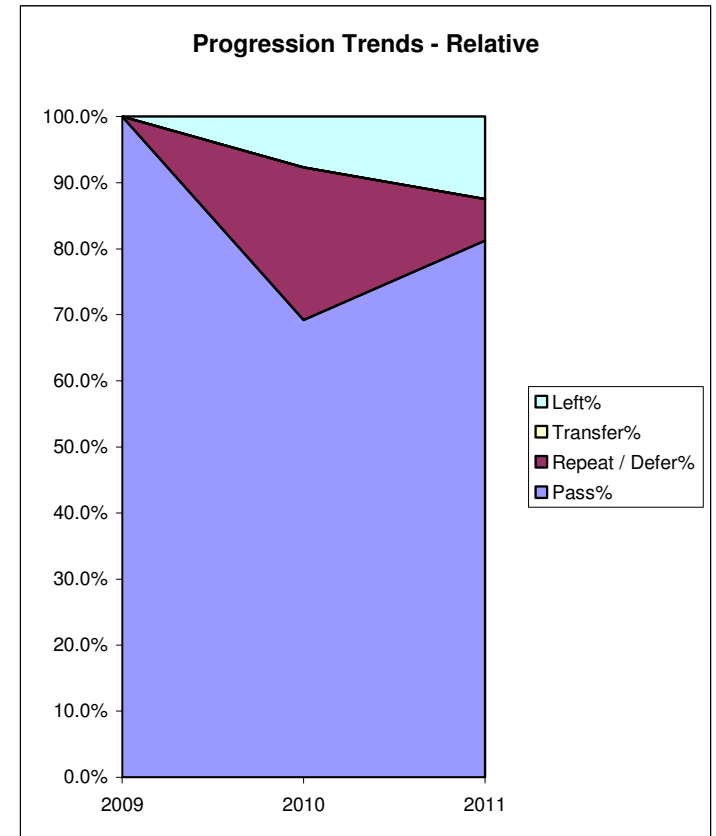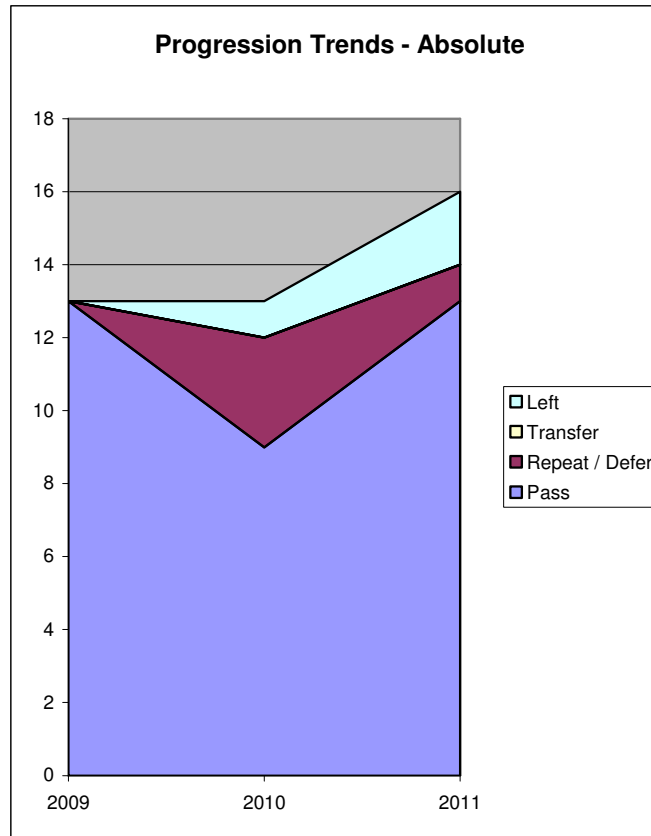
V - Student Progression Trends – Department of Computing – Stage 1

Faculty	Faculty of Engineering & Science
School	School of Science & Informatics
Department	Department of Computing
Prog	(All)
Stage	1

Year	Pass	Repeat / Defer	Transfer	Left	Total	Pass%	Repeat / Defer%	Transfer%	Left%
2009	50	19	10	33	112	44.6%	17.0%	8.9%	29.5%
2010	53	17	8	36	114	46.5%	14.9%	7.0%	31.6%
2011	61	14	11	28	114	53.5%	12.3%	9.6%	24.6%

Year	Data	Total
2009	Sum of Pass	50
	Sum of Rep-Def	19
	Sum of Transfer	10
	Sum of Left	33
2010	Sum of Pass	53
	Sum of Rep-Def	17
	Sum of Transfer	8
	Sum of Left	36
2011	Sum of Pass	61
	Sum of Rep-Def	14
	Sum of Transfer	11
	Sum of Left	28
Total Sum of Pass		164
Total Sum of Rep-Def		50
Total Sum of Transfer		29
Total Sum of Left		97

Progression Trends - Absolute
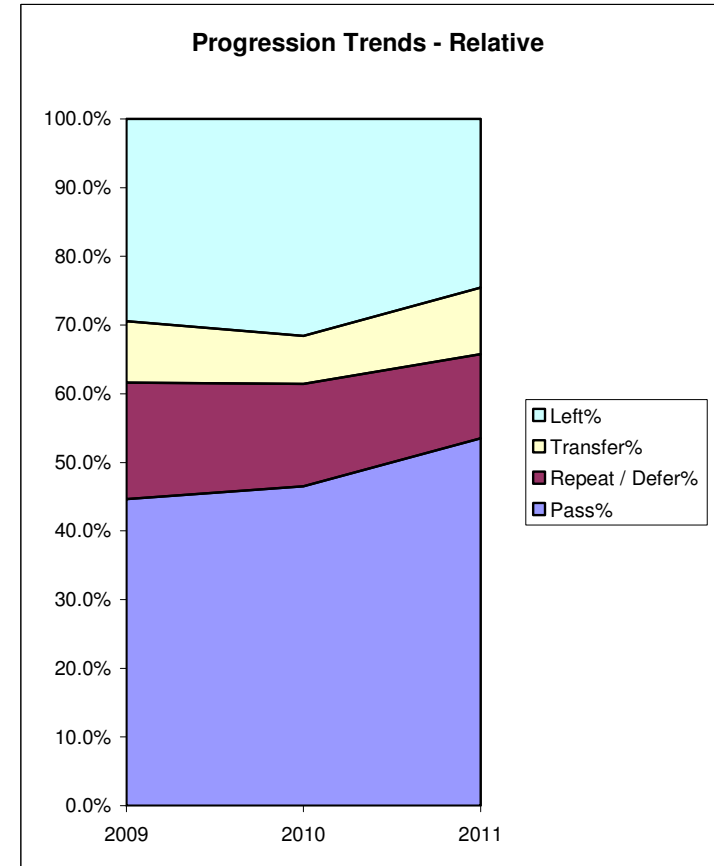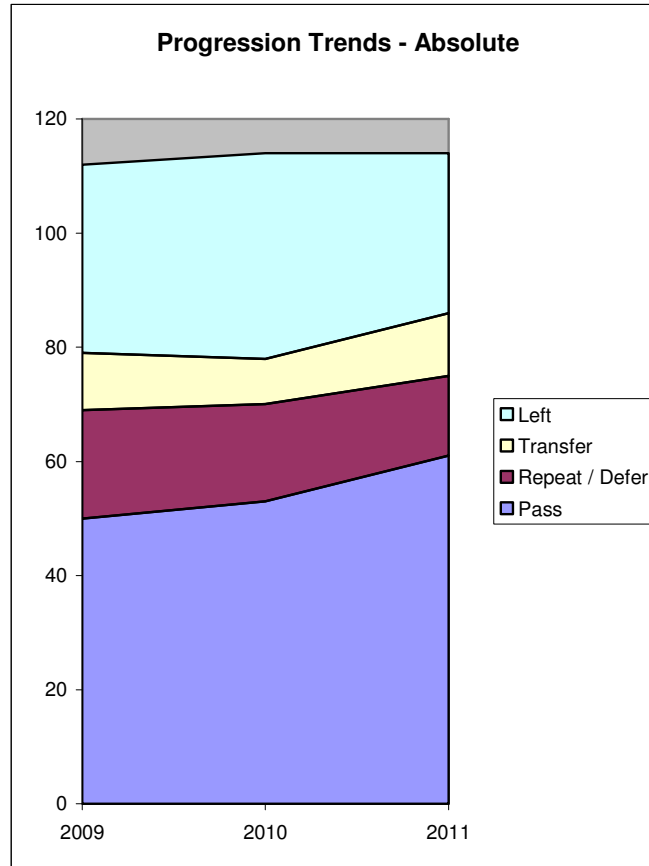

Progression Trends - Relative

W - Student Progression Trends – Department of Computing –Stage 2

Faculty	Faculty of Engineering & Science
School	School of Science & Informatics
Department	Department of Computing
Prog	(All)
Stage	2

Year	Pass	Repeat / Defer	Transfer	Left	Total	Pass%	Repeat / Defer%	Transfer%	Left%
2009	29	14	2	8	53	54.7%	26.4%	3.8%	15.1%
2010	37	17	5	12	71	52.1%	23.9%	7.0%	16.9%
2011	46	13	2	17	78	59.0%	16.7%	2.6%	21.8%

Year	Data	Total
2009	Sum of Pass	29
	Sum of Rep-Def	14
	Sum of Transfer	2
	Sum of Left	8
2010	Sum of Pass	37
	Sum of Rep-Def	17
	Sum of Transfer	5
	Sum of Left	12
2011	Sum of Pass	46
	Sum of Rep-Def	13
	Sum of Transfer	2
	Sum of Left	17
Total Sum of Pass		112
Total Sum of Rep-Def		44
Total Sum of Transfer		9
Total Sum of Left		37

Progression Trends - Absolute
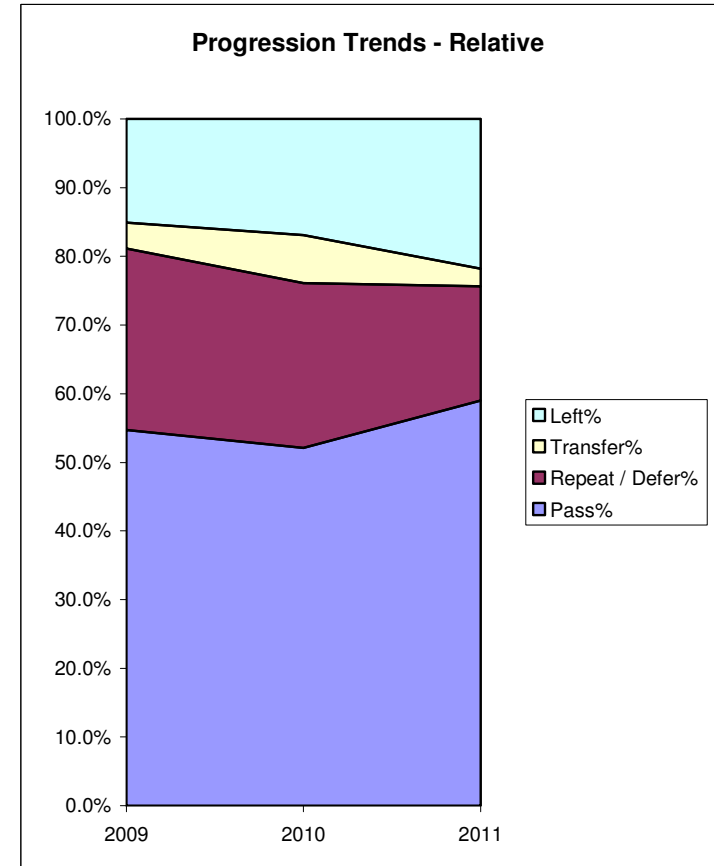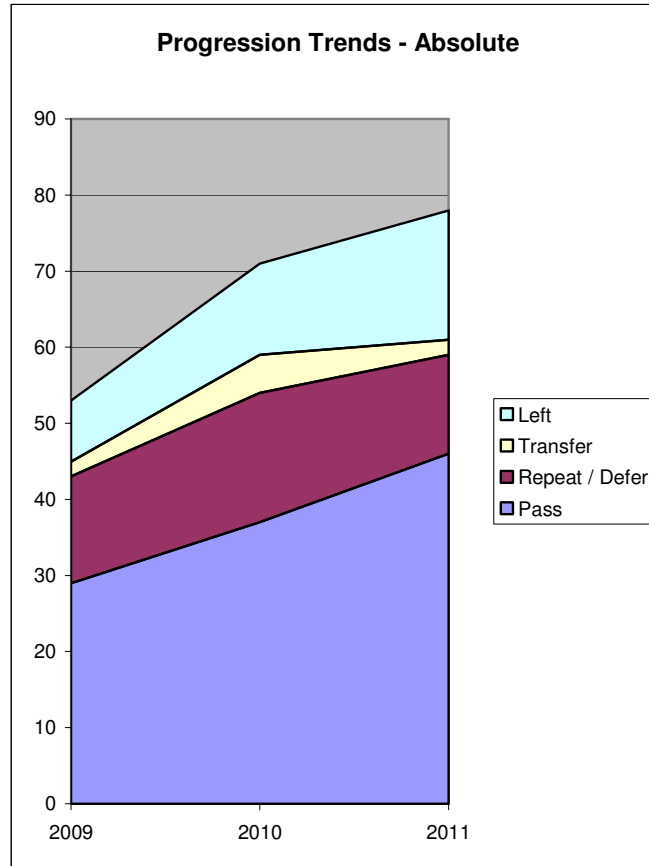

Progression Trends - Relative

45

X - Student Progression Trends – Department of Computing –Stage 3

Faculty	Faculty of Engineering & Science
School	School of Science & Informatics
Department	Department of Computing
Prog	(All)
Stage	3

Year	Pass	Repeat / Defer	Transfer	Left	Total	Pass%	Repeat / Defer%	Transfer%	Left%
2009	43	8	1	7	59	72.9%	13.6%	1.7%	11.9%
2010	38	7	0	2	47	80.9%	14.9%	0.0%	4.3%
2011	43	5	0	7	55	78.2%	9.1%	0.0%	12.7%

Year	Data	Total
2009	Sum of Pass	43
	Sum of Rep-Def	8
	Sum of Transfer	1
	Sum of Left	7
2010	Sum of Pass	38
	Sum of Rep-Def	7
	Sum of Transfer	0
	Sum of Left	2
2011	Sum of Pass	43
	Sum of Rep-Def	5
	Sum of Transfer	0
	Sum of Left	7
Total Sum of Pass		124
Total Sum of Rep-Def		20
Total Sum of Transfer		1
Total Sum of Left		16

Progression Trends - Absolute
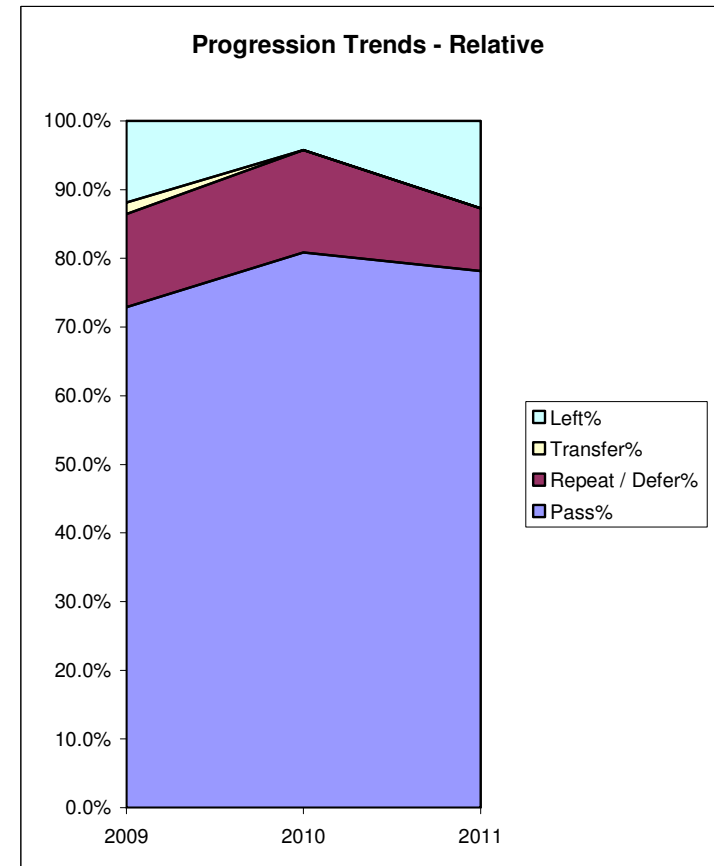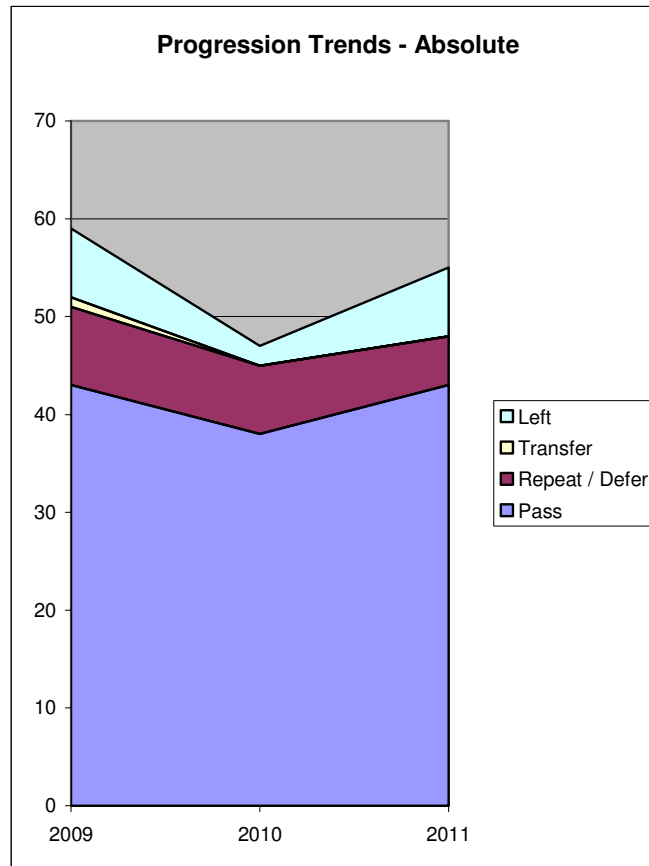

Progression Trends - Relative

46

Y - Student Progression Trends – Department of Computing – Stage 4

Faculty	Faculty of Engineering & Science
School	School of Science & Informatics
Department	Department of Computing
Prog	(All)
Stage	4

Year	Pass	Repeat / Defer	Transfer	Left	Total	Pass%	Repeat / Defer%	Transfer%	Left%
2009	20	3	0	5	28	71.4%	10.7%	0.0%	17.9%
2010	24	7	0	2	33	72.7%	21.2%	0.0%	6.1%
2011	24	2	0	4	30	80.0%	6.7%	0.0%	13.3%

Year	Data	Total
2009	Sum of Pass	20
	Sum of Rep-Def	3
	Sum of Transfer	0
	Sum of Left	5
2010	Sum of Pass	24
	Sum of Rep-Def	7
	Sum of Transfer	0
	Sum of Left	2
2011	Sum of Pass	24
	Sum of Rep-Def	2
	Sum of Transfer	0
	Sum of Left	4
Total Sum of Pass		68
Total Sum of Rep-Def		12
Total Sum of Transfer		0
Total Sum of Left		11

Progression Trends - Absolute

Progression Trends - Relative

47
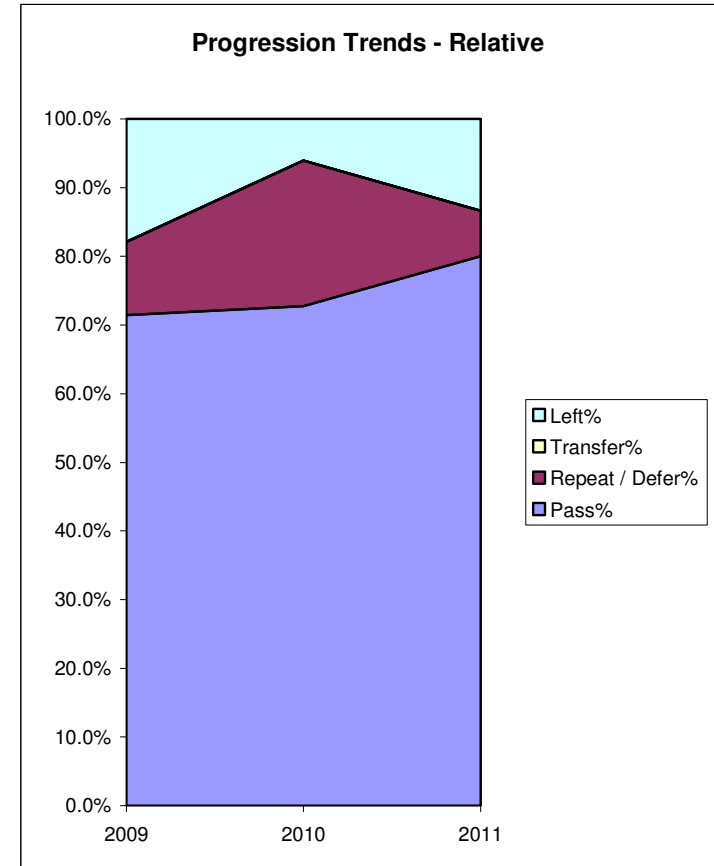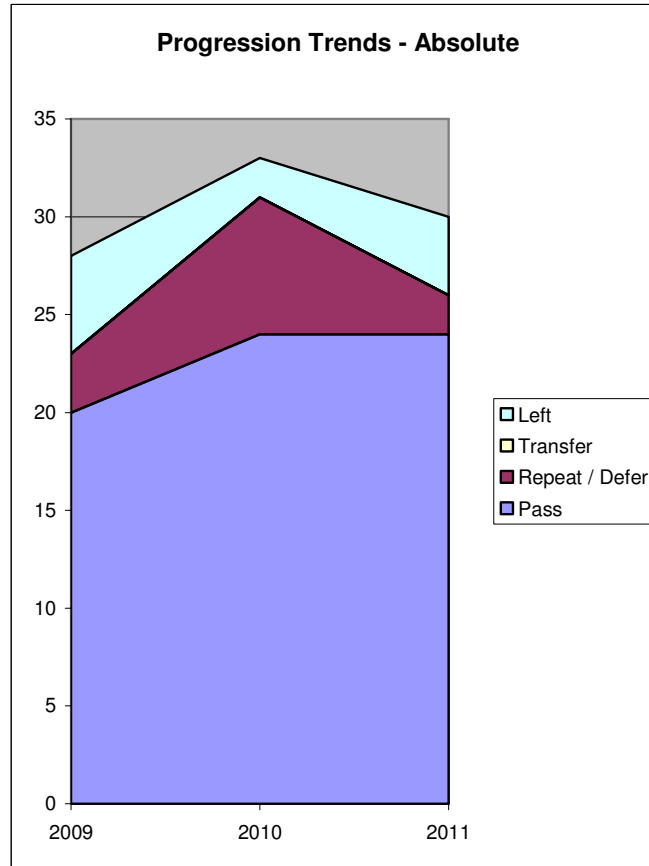
AA - CAO Trends – School of Science & Informatics

Faculty	Faculty of Engineering & Science
School	School of Science & Informatics
Department	(All)
Code	(All)
Level	(All)

	Year					
Data		2007	2008	2009	2010	2011	Grand Total
Average of Min		248	247	269	303	300	278
Average of Mid		372	357	357	368	364	363

	2007	2008	2009	2010	2011
Avg Min	248	247	269	303	300
Avg Mid	372	357	357	368	364

Min and Mid CAO Points - Avg by Programme
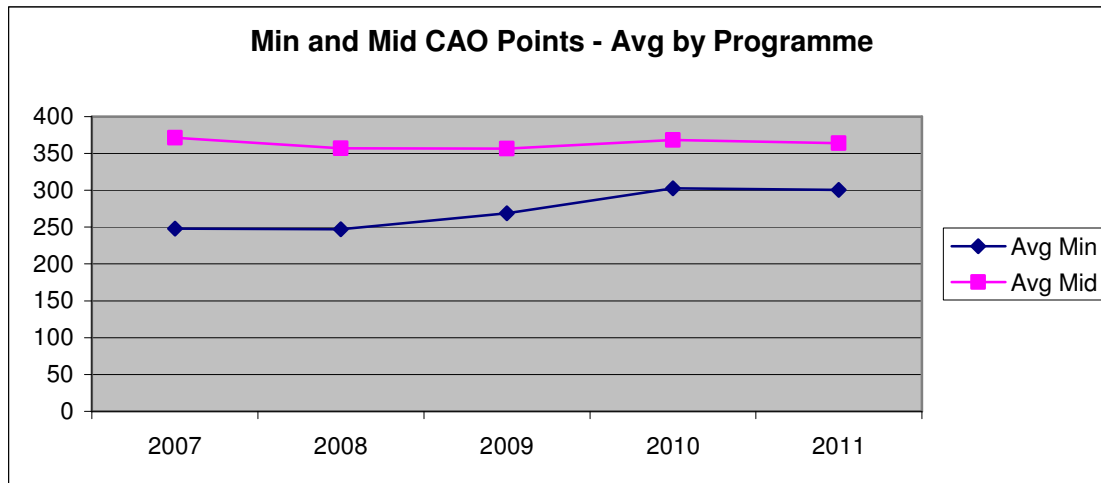
BB - CAO Trends – School of Science & Informatics – Level 8

Faculty	Faculty of Engineering & Science
School	School of Science & Informatics
Department	(All)
Code	(All)
Level	8

	Year					
Data		2007	2008	2009	2010	2011	Grand Total
Average of Min		226	260	293	320	314	295
Average of Mid		328	325	343	362	352	347

	2007	2008	2009	2010	2011
Avg Min	226	260	293	320	314
Avg Mid	328	325	343	362	352

Min and Mid CAO Points - Avg by Programme
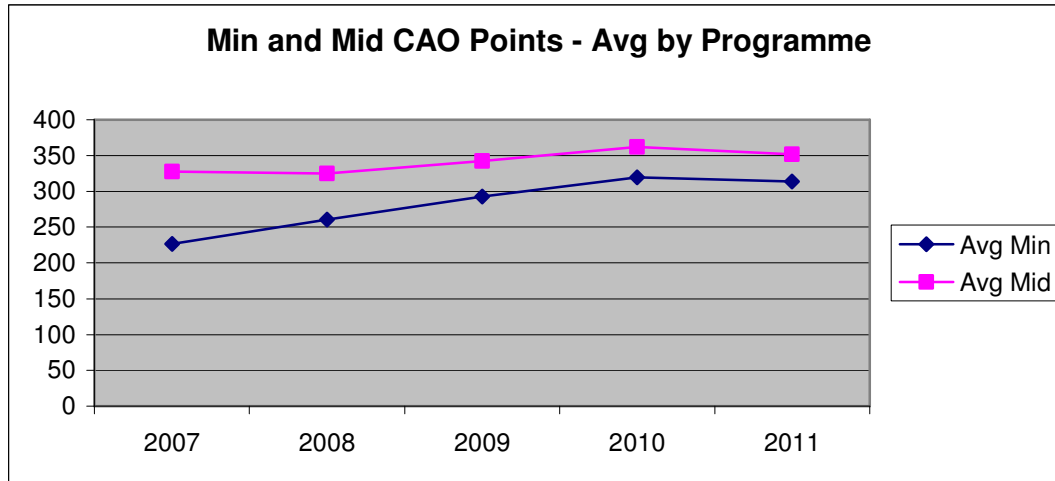
CC - CAO Trends – School of Science & Informatics – Level 6/7

Faculty	Faculty of Engineering & Science
School	School of Science & Informatics
Department	(All)
Code	(All)
Level	67

	Year					
Data		2007	2008	2009	2010	2011	Grand Total
Average of Min		263	233	229	268	273	253
Average of Mid		401	389	380	381	388	388

	2007	2008	2009	2010	2011
Avg Min	263	233	229	268	273
Avg Mid	401	389	380	381	388

Min and Mid CAO Points - Avg by Programme

DD - CAO Trends – Department of Applied Physics and Instrumentation

Faculty	Faculty of Engineering & Science
School	School of Science & Informatics
Department	Department of Applied Physics & Instrumentation
Code	(All)
Level	(All)

	Year						
Data		2007	2008	2009	2010	2011	Grand Total
Average of Min		208	203	265	300	307	264
Average of Mid		345	375	380	368	365	367

	2007	2008	2009	2010	2011
Avg Min	208	203	265	300	307
Avg Mid	345	375	380	368	365

Min and Mid CAO Points - Avg by Programme
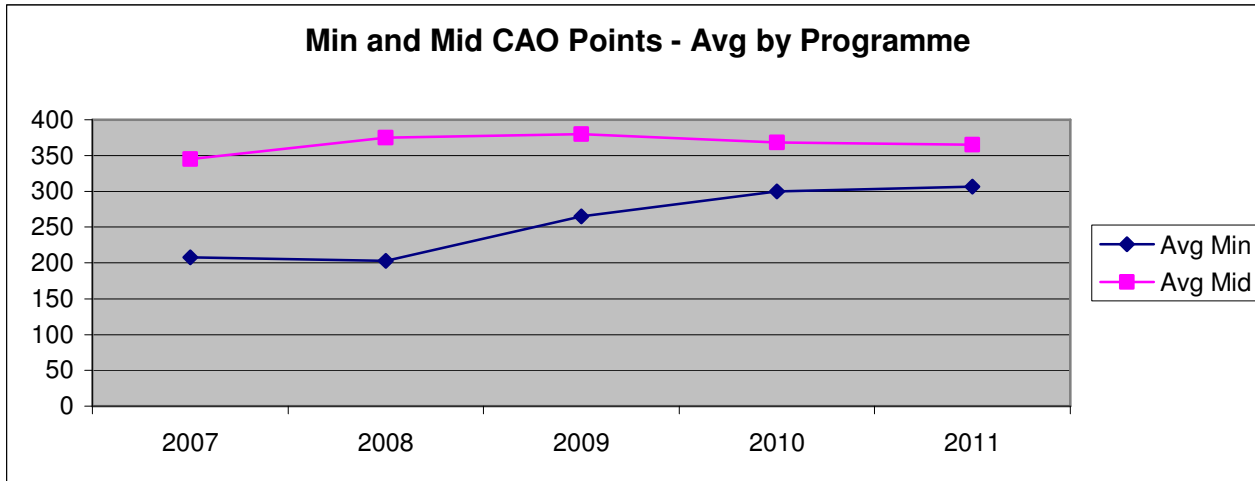
EE - CAO Trends – Department of Applied Physics and Instrumentation – Level 8

Faculty	Faculty of Engineering & Science
School	School of Science & Informatics
Department	Department of Applied Physics & Instrumentation
Code	(All)
Level	8

	Year					
Data		2007	2008	2009	2010	2011	Grand Total
Average of Min		215	250	310	323	325	296
Average of Mid		285	310	340	350	350	334

	2007	2008	2009	2010	2011
Avg Min	215	250	310	323	325
Avg Mid	285	310	340	350	350

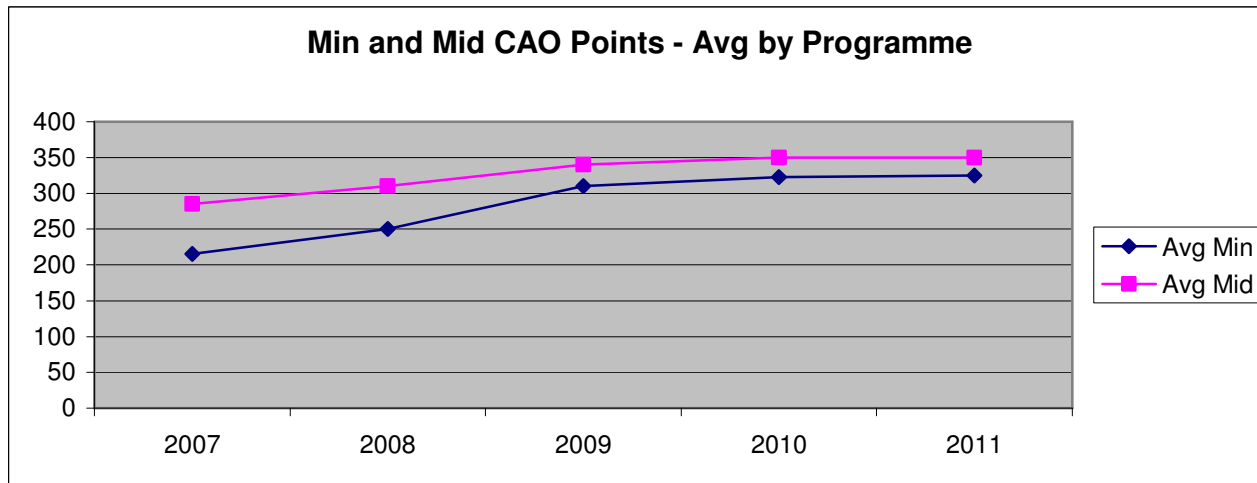Min and Mid CAO Points - Avg by Programme

FF - CAO Trends – Department of Applied Physics and Instrumentation – Level 6/7

Faculty	Faculty of Engineering & Science
School	School of Science & Informatics
Department	Department of Applied Physics & Instrumentation
Code	(All)
Level	67

	Year						
Data		2007	2008	2009	2010	2011	Grand Total
Average of Min		200	155	220	255	270	220
Average of Mid		405	440	420	405	395	413

	2007	2008	2009	2010	2011
Avg Min	200	155	220	255	270
Avg Mid	405	440	420	405	395

Min and Mid CAO Points - Avg by Programme
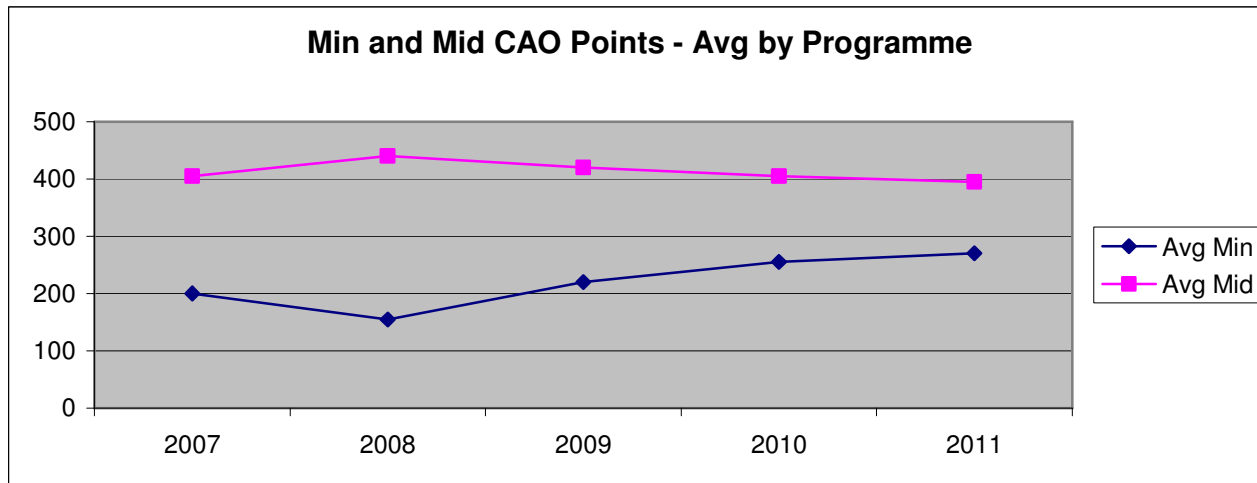
GG - CAO Trends – Department of Biological Sciences

Faculty	Faculty of Engineering & Science
School	School of Science & Informatics
Department	Department of Biological Sciences
Code	(All)
Level	(All)

	Year					
Data		2007	2008	2009	2010	2011	Grand Total
Average of Min		283	276	289	345	328	309
Average of Mid		400	395	369	393	385	387

	2007	2008	2009	2010	2011
Avg Min	283	276	289	345	328
Avg Mid	400	395	369	393	385

Min and Mid CAO Points - Avg by Programme
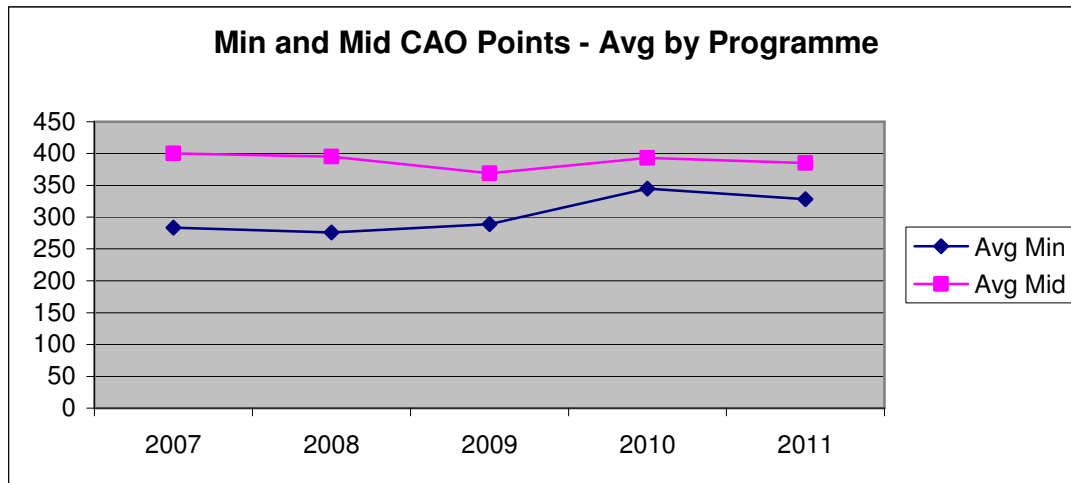
HH - CAO Trends – Department of Biological Sciences – Level 8

Faculty	Faculty of Engineering & Science
School	School of Science & Informatics
Department	Department of Biological Sciences
Code	(All)
Level	8

	Year					
Data		2007	2008	2009	2010	2011	Grand Total
Average of Min		210	228	303	360	338	317
Average of Mid		335	325	365	393	379	372

	2007	2008	2009	2010	2011
Avg Min	210	228	303	360	338
Avg Mid	335	325	365	393	379

Min and Mid CAO Points - Avg by Programme
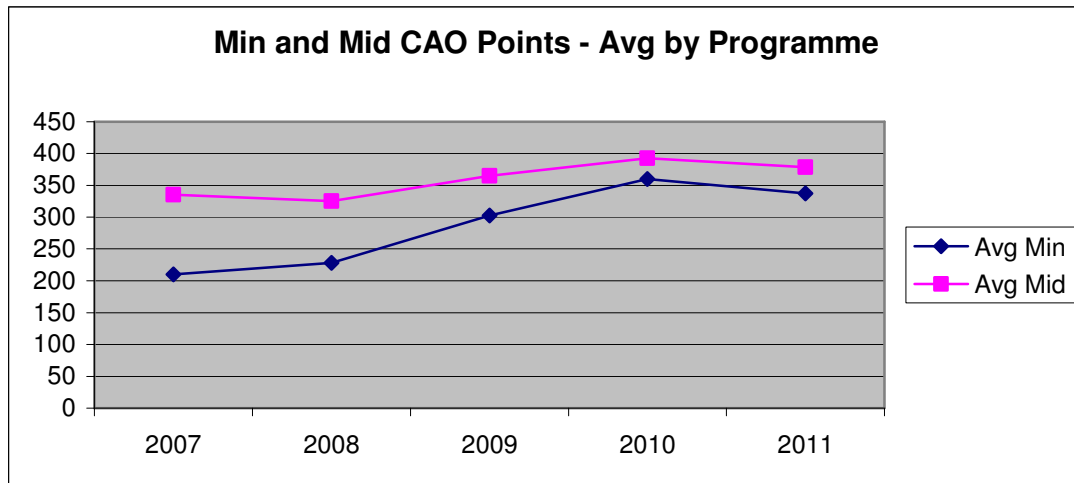
II - CAO Trends – Department of Biological Sciences – Level 6/7

Faculty	Faculty of Engineering & Science
School	School of Science & Informatics
Department	Department of Biological Sciences
Code	(All)
Level	67

	Year					
Data		2007	2008	2009	2010	2011	Grand Total
Average of Min		320	300	235	285	290	293
Average of Mid		433	430	385	395	410	416

	2007	2008	2009	2010	2011
Avg Min	320	300	235	285	290
Avg Mid	433	430	385	395	410

Min and Mid CAO Points - Avg by Programme
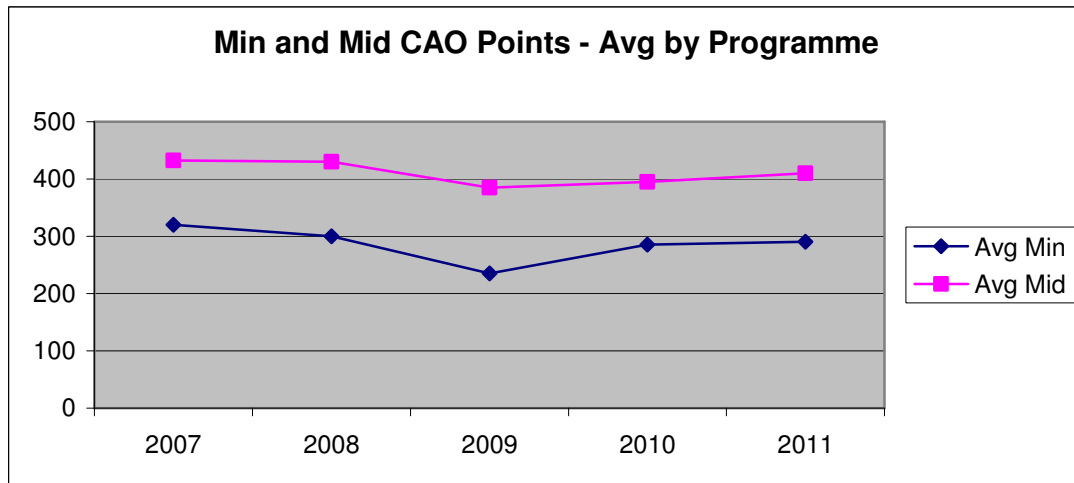
JJ - CAO Trends – Department of Chemistry

Faculty	Faculty of Engineering & Science
School	School of Science & Informatics
Department	Department of Chemistry
Code	(All)
Level	(All)

	Year					
Data		2007	2008	2009	2010	2011	Grand Total
Average of Min		270	260	248	270	289	268
Average of Mid		470	375	379	379	396	389

	2007	2008	2009	2010	2011
Avg Min	270	260	248	270	289
Avg Mid	470	375	379	379	396

Min and Mid CAO Points - Avg by Programme
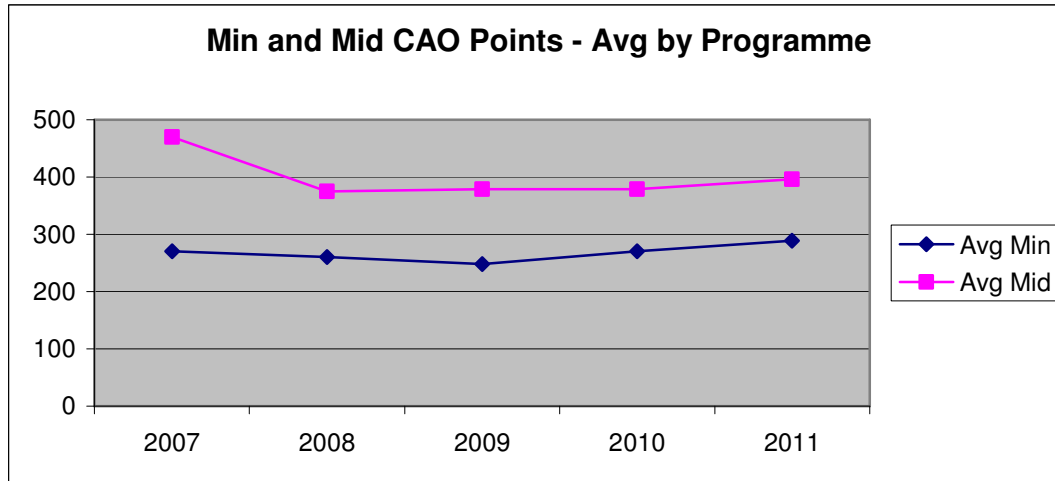
KK - CAO Trends – Department of Chemistry – Level 8

Faculty	Faculty of Engineering & Science
School	School of Science & Informatics
Department	Department of Chemistry
Code	CR340
Level	8

	Year				
Data		2008	2009	2010	2011	Grand Total
Average of Min		320	285	235	290	283
Average of Mid		330	330	320	350	333

	2007	2008	2009	2010	2011
Avg Min		320	285	235	290
Avg Mid		330	330	320	350

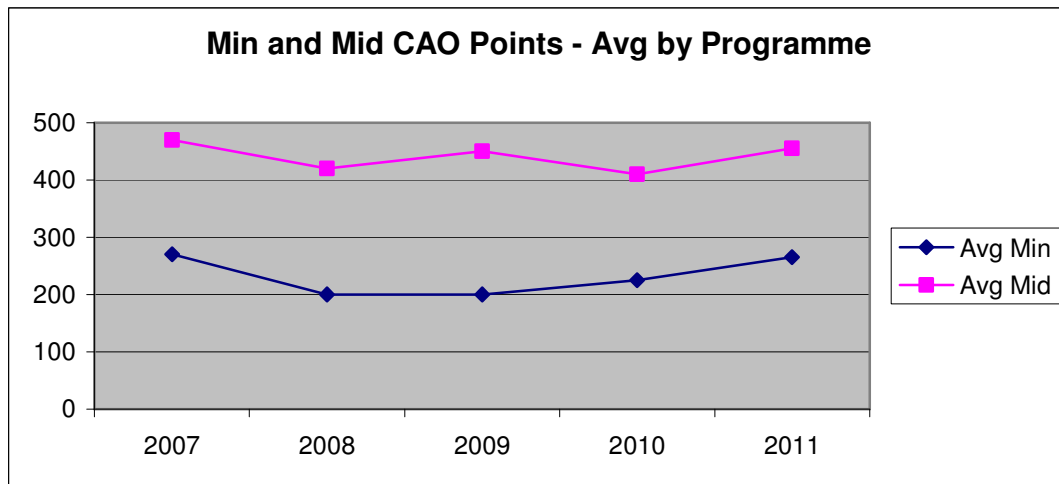Min and Mid CAO Points - Avg by Programme
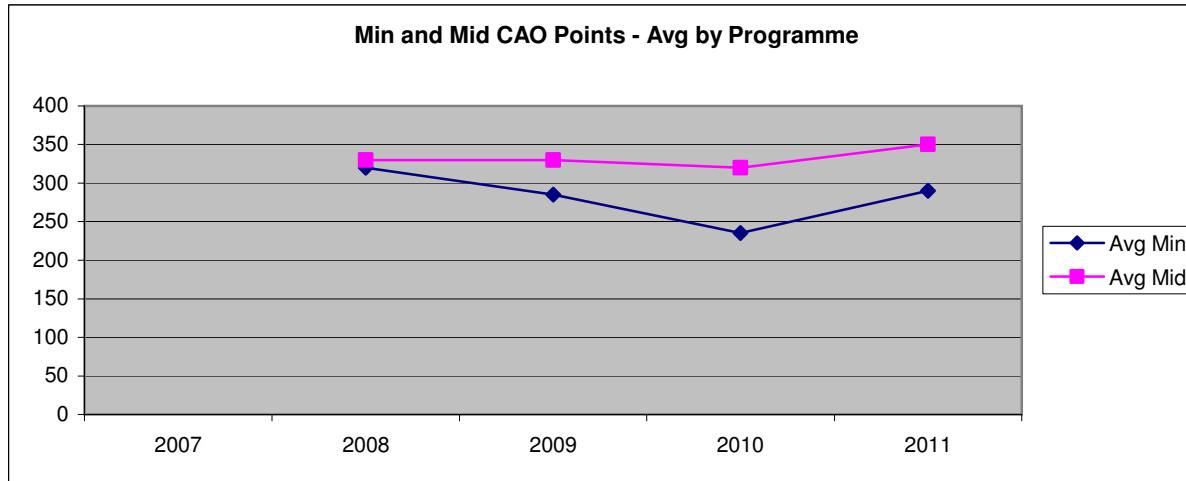
LL - CAO Trends – Department of Chemistry – Level 6/7

Faculty	Faculty of Engineering & Science
School	School of Science & Informatics
Department	Department of Chemistry
Code	CR007
Level	67

	Year					
Data		2007	2008	2009	2010	2011	Grand Total
Average of Min		270	200	200	225	265	232
Average of Mid		470	420	450	410	455	441

	2007	2008	2009	2010	2011
Avg Min	270	200	200	225	265
Avg Mid	470	420	450	410	455

Min and Mid CAO Points - Avg by Programme

MM - CAO Trends – Department of Chemistry – Common Entry – Level 8

Faculty	Faculty of Engineering & Science
School	School of Science & Informatics
Department	Department of Chemistry
Code	CR305
Level	8

	Year			
Data		2009	2010	2011	Grand Total
Average of Min		295	320	310	308
Average of Mid		335	355	340	343

	2007	2008	2009	2010	2011
Avg Min			295	320	310
Avg Mid			335	355	340

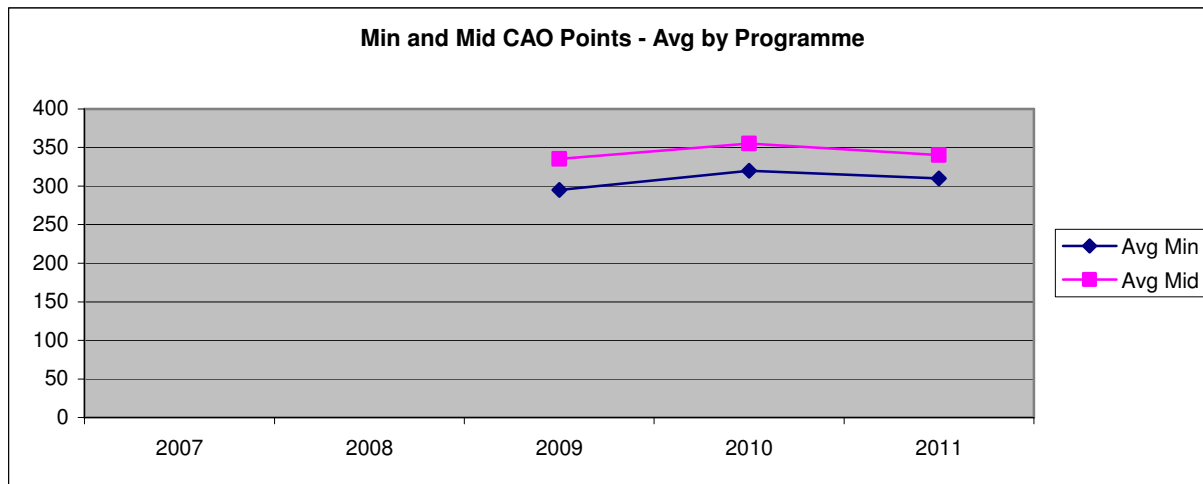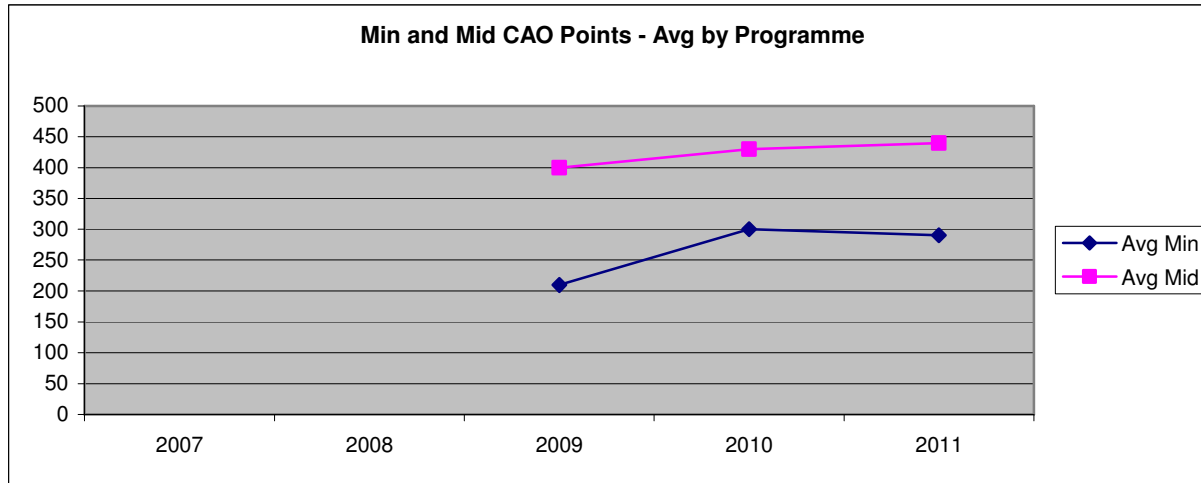**Min and Mid CAO Points - Avg by Programme**

NN - CAO Trends – Department of Chemistry – Common Entry – Level 7

Faculty	Faculty of Engineering & Science
School	School of Science & Informatics
Department	Department of Chemistry
Code	CR300
Level	67

	Year			
Data		2009	2010	2011	Grand Total
Average of Min		210	300	290	267
Average of Mid		400	430	440	423

	2007	2008	2009	2010	2011
Avg Min			210	300	290
Avg Mid			400	430	440

Min and Mid CAO Points - Avg by Programme

OO - CAO Trends – Department of Computing

Faculty	Faculty of Engineering & Science
School	School of Science & Informatics
Department	Department of Computing
Code	(All)
Level	(All)

	Year					
Data		2007	2008	2009	2010	2011	Grand Total
Average of Min		236	242	267	290	282	266
Average of Mid		339	320	317	341	324	328

	2007	2008	2009	2010	2011
Avg Min	236	242	267	290	282
Avg Mid	339	320	317	341	324

Min and Mid CAO Points - Avg by Programme
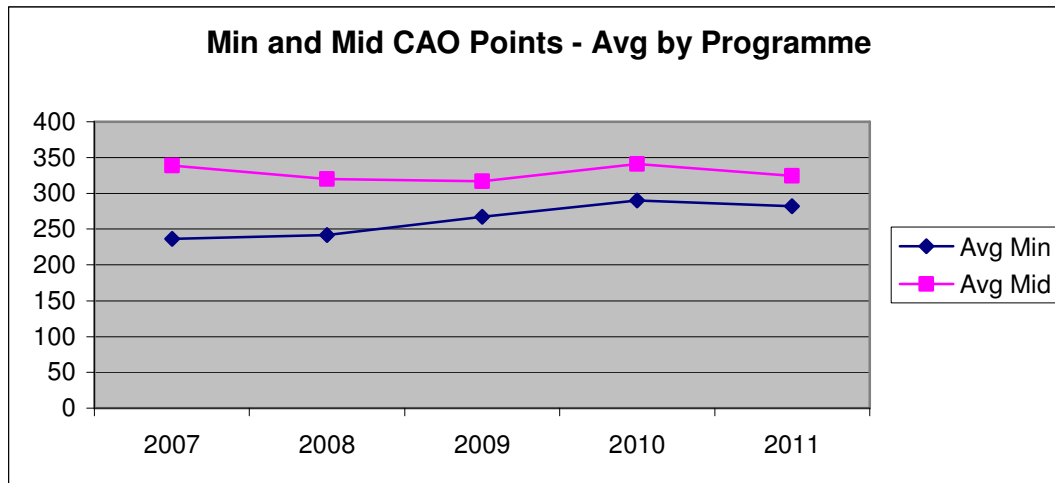
PP - CAO Trends – Department of Computing – Level 8

Faculty	Faculty of Engineering & Science
School	School of Science & Informatics
Department	Department of Computing
Code	(All)
Level	8

	Year					
Data		2007	2008	2009	2010	2011	Grand Total
Average of Min		240	255	275	299	291	277
Average of Mid		345	328	320	350	329	334

	2007	2008	2009	2010	2011
Avg Min	240	255	275	299	291
Avg Mid	345	328	320	350	329

Min and Mid CAO Points - Avg by Programme
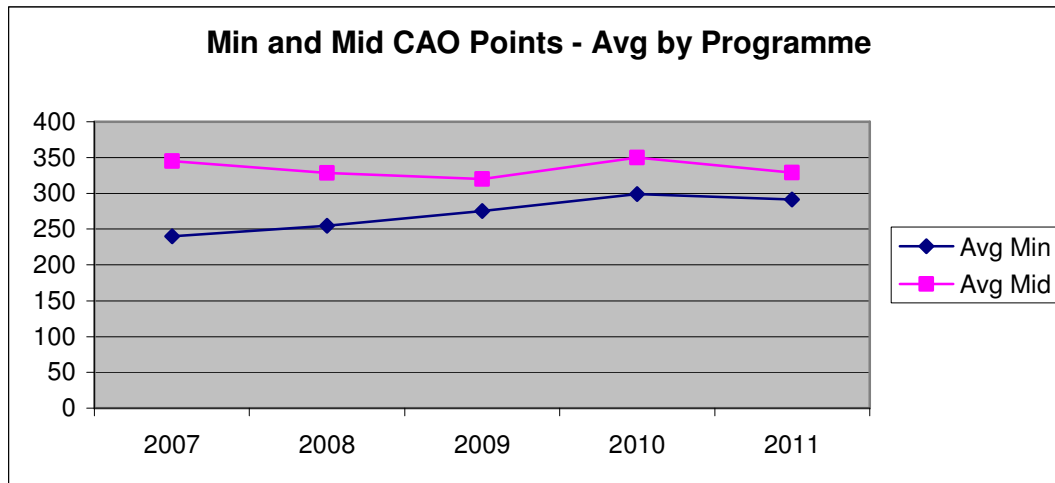
QQ - CAO Trends – Department of Computing – Level 6/7

Faculty	Faculty of Engineering & Science
School	School of Science & Informatics
Department	Department of Computing
Code	(All)
Level	67

	Year					
Data		2007	2008	2009	2010	2011	Grand Total
Average of Min		233	223	255	273	263	249
Average of Mid		333	308	313	323	315	318

	2007	2008	2009	2010	2011
Avg Min	233	223	255	273	263
Avg Mid	333	308	313	323	315

Min and Mid CAO Points - Avg by Programme