THE UNIVERSITY OF THE WEST INDIES OFFICE OF PLANNING

ASSESSMENT OF ENTREPRENEURSHIP PROGRAMMES AND COURSES TAUGHT AT THE UNIVERSITY OF THE WEST INDIES, FOR THE ACADEMIC PERIODS 2012-2013 AND 2016-2017

University Office of Planning September 2019

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1. INTRODUCTION

In its Strategic Plan (2017-2022), The University of the West Indies (UWI) indicated that one of its strategic goals was to align the needs of the private sector with the work of the UWI by increasing and improving academic-industry partnerships (AL2). As part of the alignment process, the UWI is undergoing a paradigm shift building on its research and teaching strength, to embrace a more business like model focussed on wealth generation and the creation of businesses from entrepreneurial activities such as new start- up ventures. In order to churn out the human capital with the requisite skills and competencies in entrepreneurship and to generate wealth to support UWI must first dwindling regional economies, the assess the current entrepreneurship/entrepreneurship-related activities conducted by UWI beginning with its curriculum. The idea is to assess alignment with private sector needs and with business generation possibilities. This study would therefore review the current curriculum with a view to making recommendations for transitioning of the institution into a more entrepreneurial university. This will also allow UWI to increase the number of programmes and courses in this area, over the duration of the current Strategic Plan.

The main objective of the project was as follow:

a. Ascertain the number of undergraduate and postgraduate entrepreneurship/entrepreneurship-related programmes and courses offered across the university including the Business Schools, for the academic years, 2012/13 and 2016/2017

2. METHODOLOGY

A thematic content analysis was undertaken of all programmes and courses offered across the university, at both undergraduate and postgraduate levels, which were dedicated to entrepreneurship as well as those which also had entrepreneur-related content.

The content analysis included 13 key terms in entrepreneurship as follows:

- Business, enterprise, entrepreneurship, entrepreneurial, entrepreneur, venture, innovation, spin-offs, value chain, incubators, legal aspects (in business), business risks, and business ethics.
- Entrepreneurship/entrepreneurship-related was thus understood as encapsulating the expanded/refined key words identified.

2.1 DATA COLLECTION

The Campus Planning Offices (CPOs) were requested to provide a listing of entrepreneurship/entrepreneurship-related courses (undergraduate and postgraduate) based on the key terms for Semester 1 and Semester 2, for 2012/13 and 2016/17.

Responses from the campuses were mixed and did not follow a shared format.

- Both the Mona and St Augustine CPOs provided comprehensive information for AY2016/2017. Mona Campus also provided data for a five-year period (AY2012/2013 to 2016/2017).
- St Augustine provided a listing of courses by each key word for AY2016/2017.
- Open Campus also provided the course listing for AY2016/2017.
- Cave Hill Campus provided partial data based primarily on the Faculty of Social Sciences management programmes.

Based on the quality of data provided, the research project team then:

- Expanded the course content analysis to include AY2012/2013 to AY2015/2016 for all campuses to take into account curriculum reviews, programme changes and the introduction of new programmes and/or courses on the campuses over time.
- Extended the course content analysis for Cave Hill Campus to include other Faculties and departments; and
- (Re) validated programmes and courses via Faculty Handbooks/Faculty Graduate Guides.

Additional courses were identified based on the key words in the course title and course descriptions for the Mona and St Augustine campuses, which can be ascribed to the differences in the source of information used - enterprise system (Banner Student) and the Faculty Handbooks/Faculty Graduate Guides for the period AY2012/2013 to AY2016/2017. For the Cave Hill Campus, courses were revalidated and the number of courses expanded for the Faculty of Social Sciences to include the key words. Courses were identified for the other four Faculties (Science and Technology, Humanities and Education, Law, and Medical Sciences).

There was also the crosschecking of course codes and titles in the Faculty Handbooks/Faculty Graduate Guides to determine department-ownership.

Some course codes changed at the Mona Campus although course titles and descriptions remained the same and as such, there was cross-referencing between the years to ensure that titles were continuous. For instance; *MGMT3025: Labour and Employment Law* in AY2012/2013

became *MGMT30*63 by AY2016/2017, and similarly *MGMT3100: Entrepreneurial Finance* at MSBM became MGMT3090.

2.2 DATA COMPILATION

Information on course listing for the St Augustine Campus was organised and filtered by course name aligned to programmes (e.g. *ENTI2002: Entrepreneurial Business Planning* was aligned to Department of Agricultural Economics and Extension in the Faculty of Food and Agriculture). Programmes/courses were aligned to Faculties of Humanities and Education, and Social Sciences for the Open Campus. For the other campuses, the courses and programmes were associated with the relevant Faculties by the campuses themselves.

Based on the programme/course lists compiled, a count of entrepreneurship/entrepreneurship-related programmes and courses was done by campus, Faculty, and department by academic year. To show the extent of entrepreneurship/entrepreneurship-related programmes and courses across the Faculty and/or Department, the total number of <u>Faculty and departmentowned</u> programmes and courses was considered.

The University academic offerings are organised by Faculties in the main. Open Campus is organised by programmes, which were aligned to the Faculties of Humanities and Education, and Social Sciences. The Faculties of Humanities and Education; Social Sciences; Science and Technology; Medical Sciences; and Law are common to the landed campuses (Cave Hill, Mona, and St Augustine). The Faculties of Engineering, and Food and Agriculture are located at St Augustine only. These similarities and differences would be reflected in the data compilation. *The Faculty of Sport, which was established in 2017, was not included in the analysis.*

The University offers associate degrees, diplomas and certificates, undergraduate, graduate, and continuing and professional education (CPE) programmes. At the Bachelors' level, the University offers single majors, double majors, one major and one or two minors or specials and this information was captured in programme and course listing. At the postgraduate level, the University offers Masters, MPhil, PhD, DBA, etc. and these were included in the count.

Table 1 identifies the indicators used and its meaning in the exercise.

Table 1: Indicators and Descriptions							
INDICATORS	MEANING						
TOTAL NUMBER OF <u>PROGRAMMES</u>	Number of programmes within the Faculty/Department (Majors only e.g. Faculty of Social Sciences, Dept. of Economics - ECON or FINA)						
Number of programmes with entrepreneurship/entrepreneurship-related content	Count of all programme majors meeting the criteria determined by the expanded/refined key words						
Number of dedicated entrepreneurship programmes	Count of entrepreneurship programmes ONLY (key word entrepreneurship in title). This includes concentrations/specialisations						
TOTAL NUMBER OF <u>COURSES</u>	Number of courses within the Department (Department-owned only – Dept. of Economics - ECON or FINA)						
Number of courses with entrepreneurship/entrepreneurship-related content	Count of all courses meeting the criteria determined by the expanded/refined key words in both course title and course description within the Department						
Number of dedicated entrepreneurship courses	Count of entrepreneurship courses ONLY (key word entrepreneurship in title)						

2.3 ASSUMPTIONS AND LIMITATIONS:

Assumption:

• That the expanded/refined key words adequately encompassed entrepreneurship and thus, the list of programmes and courses identified reflects the University's efforts in enhancing its orientation towards entrepreneurship and business creation.

Limitations:

- The key words provided and the expanded/refined terms were not sufficiently distilled thus, affecting the number of courses identified. For example, in the search using the key word 'business', the courses FREN3003: Business French or SPAN3502: Business Spanish will appear in majors such as B.Sc. Political Science with/and French or B.Sc. Science with/and Spanish at Cave Hill Campus. These were not eliminated for course content listing and count.
- Information on course listing for St Augustine Campus had to be organised and filtered by course name aligned to programmes.
- As course listings had to be re-organised and filtered this could lead to double counting.
- The study is characterised by a number of data limitations based on availability of information on programme/course content and/or data on enrolment and graduation, which impacts on the completeness and robustness of the study.

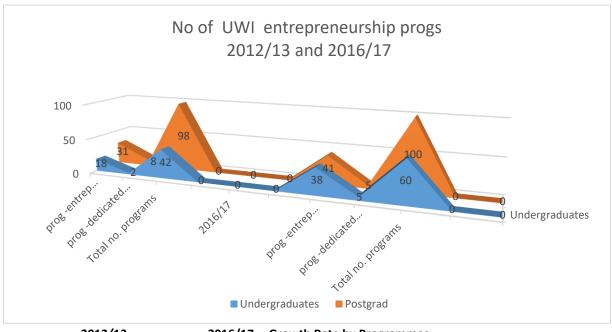
Caveat:

As with any research, findings are dependent on the availability and accuracy of source documents and its interpretation.

3.0 ANALYSIS AND FINDINGS:

3.1 TOTAL NUMBER OF ENTREPRENEURSHIP PROGRAMMES IN UWI

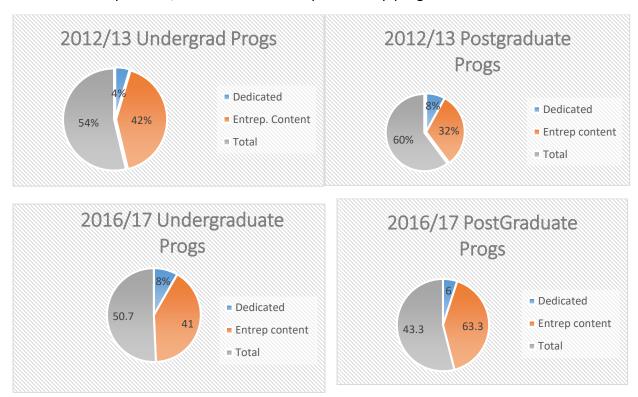
Over the period, 2012/2013 and 2016/2017, there were relatively low numbers of programmes either dedicated to or having some entrepreneurship content in them, at both graduate and undergraduate levels. However, there were more programmes with entrepreneurship related content than dedicated entrepreneurship programmes. In fact, dedicated postgraduate programmes surprisingly decreased considerably, by 2016/17.



2012/13		2016/17	Growth Rate by Programmes			
	UG	PG	UG	PG	UG	PG
DEDICATED	2	8	5	5	+2	-4
ENTREP.	18	31	38	41	+20	+10
CONTENT						
ТОТ.	20	39	43	46		
TOTAL	42	98	60	100		
PROGS IN						
UWI						

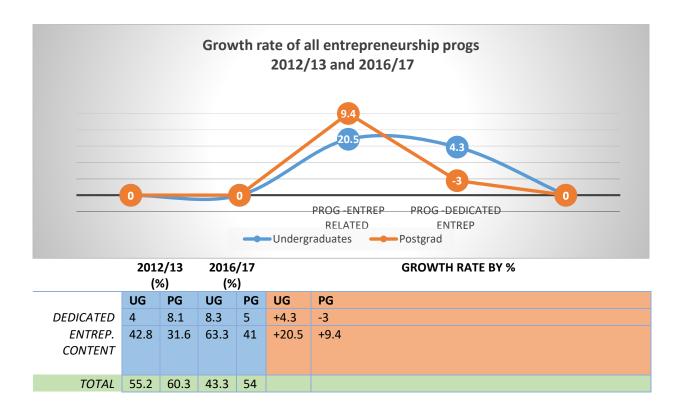
In 2012/13 undergraduate programmes dedicated to entrepreneurship comprised only 4% of all programmes, while programmes with entrepreneurship related content comprised 42.8% of all programmes offered throughout the UWI. Similarly, in that same year, postgraduate programmes dedicated to entrepreneurship were also low, comprising only 8% while programmes with entrepreneurship content was 31.6% of all programmes at the graduate level.

So at both undergraduate and graduate levels, while the percentage of entrepreneurship content courses was respectable, the number of entrepreneurship programmes was low.



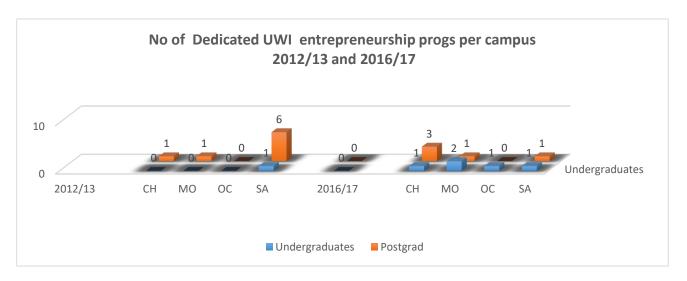
In 2016/17, similar trends were found with dedicated undergraduate entrepreneurship programmes comprising 8.3% while those with entrepreneurship related content was 41% of all programmes offered at UWI. Dedicated postgraduate programmes was 6% (a 3% drop from 2012/13) while those with entrepreneurship related content increased to 63% of all programmes offered by the UWI (from 63.3%).

Over the four-year gap between 2012/13 to 206/17, undergraduate programmes which entrepreneurship related content dropped by 1%, from 42.8% to 41%. Similarly, postgraduate programmes with entrepreneurship related content grew by 31%, from 32% to 63%.



Growth in undergraduate programmes dedicated to entrepreneurship was 4.3% while those with entrepreneurship related content grew by 20.5%, over the two academic periods. Similarly, while graduate programmes dedicated to entrepreneurship declined by -3%, there was a 9.4% growth in those graduate programmes with entrepreneurship related content.

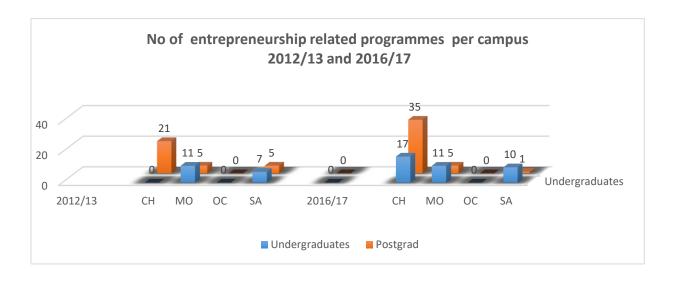
3.2. NUMBER OF <u>DEDICATED ENTREPRENEURSHIP</u> PROGRAMMES ON EACH CAMPUS



	2012/13 2016/17		016/17	GROWTH	RATE by (PROGRAMMES)	
	UG	PG	UG	PG	UG	PG
СН	0	1	1	3	+1	+2
MONA	0	1	2	1	+1	0
OC	0	0	1	0	+1	0
SA	1	6	1	1	0	-5
TOTAL	1	8	5	5		

Over the two academic years, all the campuses with the exception of St. Augustine had few dedicated entrepreneurship programmes at both undergraduate and post- graduate levels with minimal or no growth in their programmes dedicated to entrepreneurship. However, there was a dramatic reduction in St. Augustine Campus postgraduate programmes in 2016/17 when compared to 2012/13. Open campus had one undergraduate dedicated entrepreneurship programme in 2016/17.

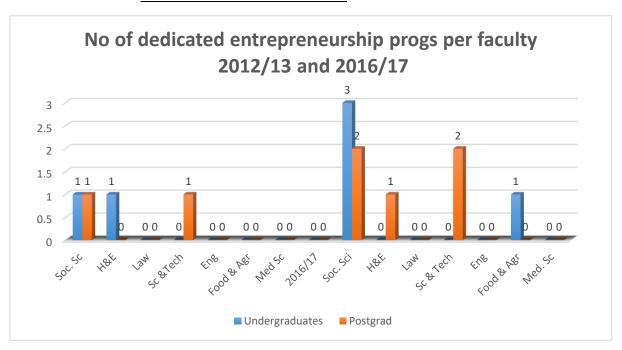
3.3. NUMBER OF ENTREPRENEURSHIP RELATED PROGRAMMES ON EACH CAMPUS



	2012/13		2016/17		GROWTH RATE BY PROGRAMMES	
	UG	PG	UG	PG	UG	PG
СН	0	21	17	35	+17	+14
MONA	11	5	11	5	0	0
OC	0	0	0	0	0	0
SA	7	5	10	1	-2	+9
TOTAL	18	31	38	41	15	23

There were attempts to include entrepreneurship related content in some of the programmes, in UWI. Cave Hill Campus had the most programmes with entrepreneur related content in them when compared to the other campuses (2012/13 they had 21 PG and this increase to 17 UG and 14 PG in 2016/17). This was followed by Mona (for both AY they had 11UG and 5 PG) and then St. Augustine (7 UG/5PG in 2012/13 and 10UG/1PG in AY2016/17). The Open Campus continued to show no visible entrepreneurship related content in any of its programmes.

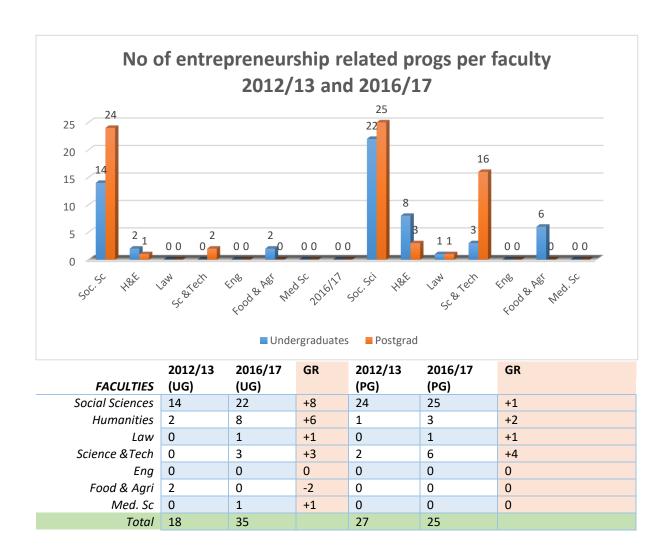
3.4 NUMBER OF DEDICATED ENTREPRENEURSHIP PROGRAMMES IN FACULTIES



1. FACULTIES	2012/13 (UG)	2016/17 (UG)	GR	2012/13 (PG)	2016/17 (PG)	GR
Social Sciences	1	3	+2	1	2	+1
Humanities	1	0	0	0	1	+1
Law	0	0	0	0	0	0
Science &Tech	0	0	0	1	2	+1
Eng	0	0	0	0	0	0
Food & Agri	0	1	+1	0	0	0
Med. Sc	0	0	0	0	0	0
Total	2	4		3	5	

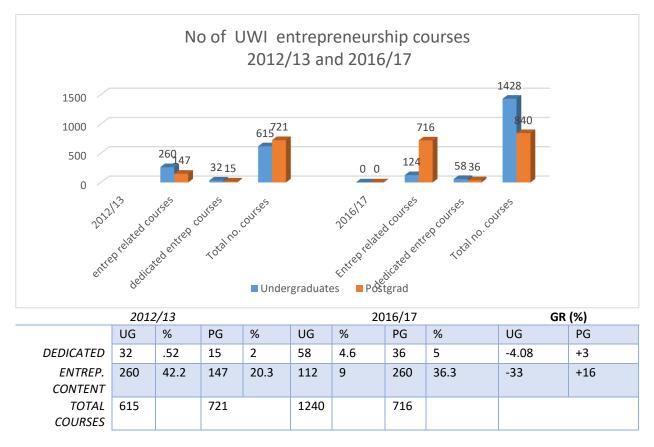
Overall, all the faculties across the university had a low number of programmes dedicated to entrepreneurship or no programmes at all over the two academic years being compared. Social Sciences had the most number of dedicated programmes in 2012/13 and 2016/17. There were no programmes in the Faculties of Law, Engineering and Medical Sciences.

3.5. NUMBER OF PROGRAMMES WITH <u>ENTREPRENEURSHIP RELATED CONTENT</u> IN FACULTIES

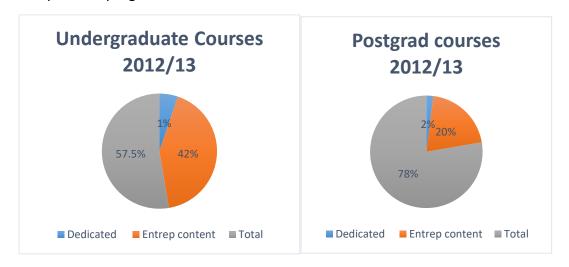


All faculties had very relatively low numbers of programmes with entrepreneur related content except the Faculty of Social Sciences, over the two compared academic periods. Faculty of Humanities and Education performed moderately well when compared to the Faculties of Engineering, Food and Agriculture and Medical Sciences which had very low or no programmes with entrepreneur related content.

6.0. COURSES – TOTAL NUMBER OF ENTREPRENEURSHIP COURSES IN UWI

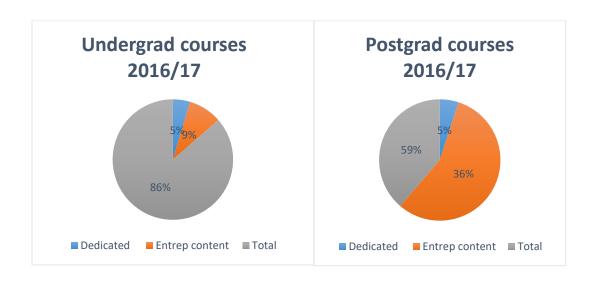


In 2012/13, there were more courses dedicated to entrepreneurship across the university when compared to programmes.

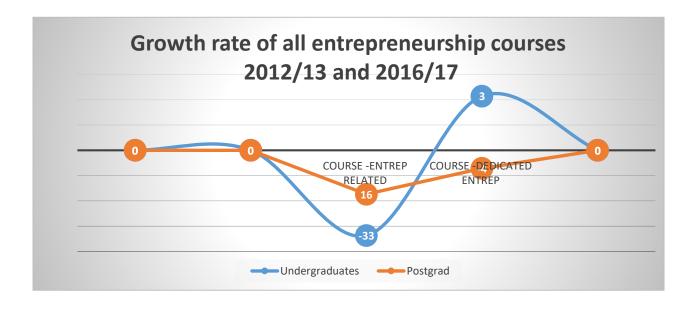


5.2% of all undergraduate courses were dedicated to entrepreneurship while 42.2% had entrepreneurial related content. In terms of postgraduate programmes for the same year, only

2% of all courses were dedicated to entrepreneurship while 20.3% had entrepreneurial-related content.



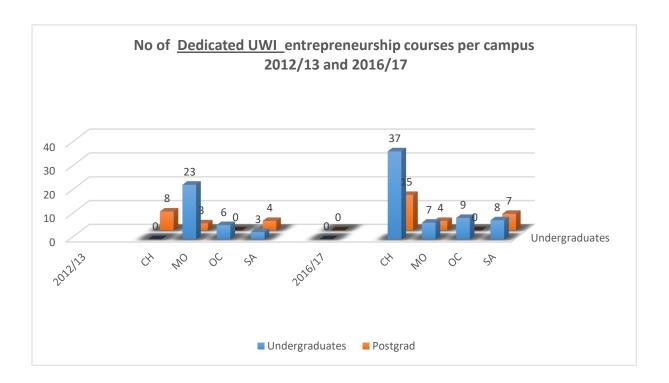
In 2016/17, dedicated undergraduate courses increased by 4%, however, there was a dramatic reduction in those with entrepreneurship content, from 42% to 9%. However, in 2016/17 there was considerable improvement in postgraduate courses with entrepreneurship related content, which increased from 20% to 36%.



Growth rates in entrepreneurship courses were generally sluggish and at times dramatically low. By 2016/17 there was a dramatic drop of courses dedicated to entrepreneurship at graduate

level. Growth in courses which had entrepreneurship related content was relatively better for graduate programmes: 16% undergraduate while there was a dramatic drop in undergraduate courses to -33%.

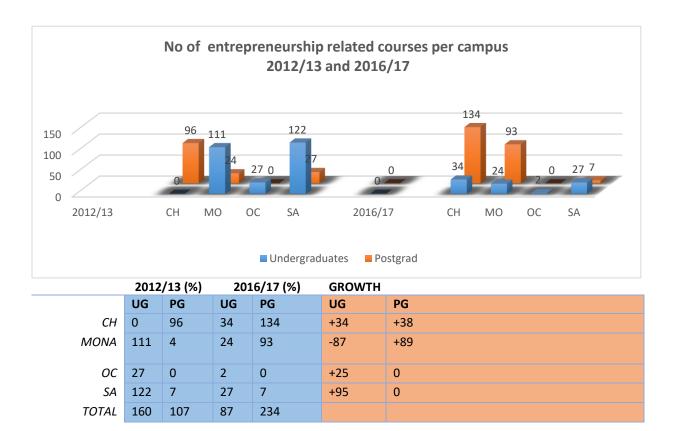
6.1. NUMBER OF <u>DEDICATED UWI ENTREPRENEURSHIP</u> COURSES PER CAMPUS



	2012/13		2016/17		GROWTH	IN COURSES
	UG	PG	UG	PG	UG	PG
СН	0	8	37	5	+37	-4
MONA	23	3	7	4	-16	+1
OC	6	0	9	0	+2	0
SA	3	4	8	7	+5	+3
TOTAL	32	15	61	16		

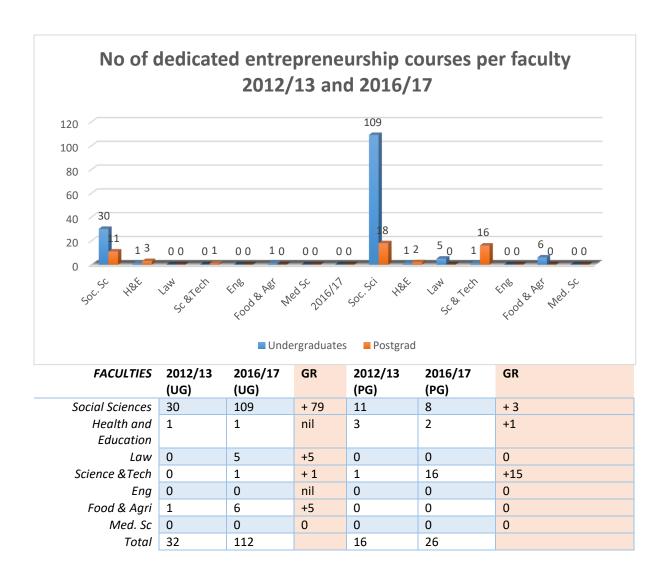
There were few dedicated courses in entrepreneurship across the campuses. Cave Hill showed considerable growth in their undergraduate courses but a decline in postgraduate courses. Mona had significant reduction in their undergraduate courses and achieved slight growth in their postgraduate courses. St. Augustine had some growth in their undergraduate and postgraduate courses. Similarly, Open Campus had some growth in both their undergraduate and postgraduate courses.

6.2. NUMBER OF ENTREPRENEURSHIP RELATED COURSES PER CAMPUS



There is a relatively high number of courses with entrepreneur related content across the campuses with only Cave Hill and Mona showing relatively high growth in graduate courses, over the two compared academic periods. There was a dramatic drop in courses with entrepreneur related content on the St Augustine Campus in 2016/17. Open Campus continue to show very low or no courses with entrepreneur content in all their courses.

6.3. NUMBER OF DEDICATED ENTREPRENEURSHIP COURSES PER FACULTY



The picture looks disappointing in terms of the number of dedicated entrepreneurship courses in all the faculties in UWI, with the exception of Social Sciences which had a substantial growth in 2017/18 from 30 to 109 undergraduate programmes. Moderate growth was seen in all the other faculties with the exception of Engineering and Medical Sciences which registered no dedicated entrepreneurship programmes. In terms of postgraduate programmes, there was an overall decrease in all faculties with the exception of The Faculty of Science and Technology which grew, from 1 to 16 dedicated programmes.

Similar trends were found in courses with entrepreneur related content in the faculties.

7. COMPARATIVE ANALYSIS OF PROGRAMMES AND COURSES ON ENTREPRENEURSHIP ACROSS THE UWI

HEADLINES	PROGRAMMES	COURSES
Total DEDICATED ENTREPRENEURSHIP PROGRAMMES/COURSES	In 2012/13 undergraduate programmes dedicated to entrepreneurship comprised 4% and postgraduate programmes 8% of all programmes offered by UWI. In 2016/17 undergraduate programmes dedicated to entrepreneurship comprised 5% while postgraduate programmes comprised 6% of all programmes offered by UWI	In 2012/13, undergraduate courses dedicated to entrepreneurship comprised .52% and postgraduate courses 2% of all courses In 2016/17, dedicated undergraduate and postgraduate courses comprised 5% of all courses offered across the UWI.
total PROGRAMMES/COURSES WITH ENTREPRENEURSHIP RELATED CONTENT:	There were higher percentage of programmes in UWI with entrepreneurship related content. In 2012/13, undergraduate programmes was 42.8% while postgraduate was 31.6%. This grew in 2016/17 to 41% of undergraduate programmes and 63% in postgraduate programmes offered in UWI.	Similarly, there were higher percentage of courses with entrepreneur related content across the campuses. In 2012/13, undergraduate courses were 42% while postgraduate was 20%. In 2016/17, undergraduate courses dropped to 9% while postgraduate courses increased to 36%.
DEDICATED ENTREPRENEURSHIP PROGRAMMES/COURSES PER CAMPUS:	Over the two academic periods, all the campuses with the exception of St. Augustine had few dedicated entrepreneurship programmes at both undergraduate and post graduate levels with minimal or no growth in their programmes dedicated to entrepreneurship. While Cave Hill increased their postgraduate programmes by one, St. Augustine reduced their PG programs considerably from 6 to one. Mona increased their undergraduate programmes from one to two, over the period. Open Campus had one undergraduate programme.	There were few dedicated courses in entrepreneurship across the campuses with the exception of Cave Hill Campus which had a substantial amount of undergraduate courses. St. Augustine had moderate growth in both years. There was a substantial drop in undergraduate courses on the Mona Campus while Open Campus remained steady at 9 undergraduate courses over the two academic periods.
ENTREPRENEURSHIP RELATED PROGRAMMES/COURSES PER CAMPUS	There were attempts to include entrepreneurship related content in some of the programmes, on the campuses. Cave Hill Campus had the most programmes with entrepreneur related content in them when compared to the other campuses. This was followed by Mona and then St. Augusting. The	There is a relatively high number of courses with entrepreneur related content across the campuses with only Cave Hill and Mona showing relatively high growth in graduate

was followed by Mona and then St. Augustine. The courses, over the two academic

	Open Campus had little visible entrepreneurship related content in its programmes.	periods. There was a dramatic drop in courses with entrepreneur related content on the St Augustine Campus in 2016/17. Open Campus showed very low number of courses with entrepreneur related content in their courses.
DEDICATED ENTREPRENEURSHIP PROGRAMMES/COURSES PER FACULTY	Overall, all the faculties across the university had a low number of programmes dedicated to entrepreneurship, over the two academic periods. Social Sciences had the most number of dedicated programmes, over the two academic periods. There were no programmes in the Faculties of Law, Engineering and Medical Sciences.	The picture looks disappointing in terms of the number of dedicated entrepreneurship courses in all the faculties in UWI, with the exception of Social Sciences which had a substantial growth in 2017/18. Moderate growth was seen in all the other faculties with the exception of Engineering and Medical Sciences which registered no dedicated entrepreneurship courses. In terms of postgraduate courses, there was an overall decrease in all faculties.
ENTREPRENEURSHIP RELATED PROGRAMMES/COURSES PER FACULTIES	All the faculties had very low numbers of programmes with entrepreneur related content except the Faculty of Social Sciences, over the two academic periods. Faculty of Humanities and Education performed moderately well when compared to the Faculties of Engineering, Food and Agriculture and Medical Sciences which had very low or no programmes with entrepreneur related content.	All the faculties had low number of courses with entrepreneur-related content except the Faculty of Social Sciences.

8. RECOMMENDATIONS:

- 1. Develop a three-year plan to strategically increase the number of programmes and courses dedicated to entrepreneurship and/or with entrepreneurship related content across the UWI.
- 2. Develop realistic benchmarks to increase the number of programmes and courses dedicated to entrepreneurship and/or with entrepreneur related content, in keeping with the strategic Plan (2017-22), across the UWI.
- 3. Develop campus and faculty specific benchmarks, to proportionately increase dedicated and entrepreneur related programmes and courses across the UWI.
- 4. Monitor the number of students enrolled and graduating from entrepreneurship programmes/courses across the UWI with a view to increasing numbers, over the next five years.
- 5. Ensure that before graduation each student is exposed to at least one course in entrepreneurship or with entrepreneurship related content.
- 6. Consult with the private sector to determine their needs in entrepreneurship so as to align current curriculum and develop new ones in entrepreneurship.
- 7. Develop an entrepreneurship intention study to determine whether students are interested in starting their own businesses with a view to developing proposals to increase the number of students enrolled and graduating in this area (ongoing).

9. CONCLUSION:

It is clear from this study that the number of programmes and courses in entrepreneurship is very low. An average of less than five percent are dedicated to entrepreneurship throughout the university and when drilled down to campuses and faculties, the picture is even more disappointing. However, there appears to be some attempt to include entrepreneurship related content in some of the existing programmes and courses on campuses. About one-third of all programmes and courses had some entrepreneur-related content, however, as may be expected this was not evenly distributed across the faculties. Predictably, the Faculty of Social Sciences had the most amount of entrepreneurship programmes and courses but some faculties consistently showed no entrepreneurship programmes/courses in their offerings.

Given that entrepreneurship is viewed as a means to generate wealth and support challenged economies in the region, it is imperative that the UWI have a more systemic, focused and strategic approach to entrepreneurship, developing new curriculum in this area while amending current programmes and courses to include entrepreneurship related content. In this way the university would be preparing graduates for the challenges of starting their own businesses while providing the human capital for supporting private sector growth and development in the region.

While it is expected that the Faculty of Social Sciences would lead in entrepreneurship programmes and courses with entrepreneurship related content, other faculties could and should do better. Entrepreneurship courses should not hurt in the Faculty of Engineering for instance. Any programme in Agriculture or Environmental Studies would benefit from entrepreneurship. The Agri. business programmes could also be more entrepreneurship oriented. Similarly, Culture and Arts and events related to these all require entrepreneurial initiative. This area represents a global growth industry in Tourism. So that the possibilities in faculties beyond Social Sciences are immense.