



**TERTIARY EDUCATION
COMMISSION**

**List of Indicative Priority Fields
of Study 2017/2019**

January 2017



Introduction

The availability of a critical mass of graduates and professionals in various disciplines and sectors is deemed critical for the development and sustained growth of any economy. In the case of Mauritius, human capital being relatively limited, it is all the more important that judicious utilisation is made thereof. In such a context, human resource planning is critical if we are to ensure that higher education better serves national development needs.

The List of Indicative Priority Fields of Study (LIPFS) attempts to do just that as it sets the country's priority needs with regard to high-level human resources for the short-to-medium terms. By identifying areas where a scarcity of graduates exists or likely to arise in the future, the LIPFS guides prospective tertiary students in making informed decisions concerning their fields of study so that after their graduation they have relatively good prospects of securing employment in their respective areas. The LIPFS is also used by the Government as a reference document for the award of scholarships and by the Tertiary Education Institutions for reviewing their programmes, introducing new ones as well as for the capacity building.

The LIPFS 2017/2019 follows the International Standard Classification of Education as adopted by the United Nations Educational, Scientific and Cultural Organisations (UNESCO) for classifying fields of study. The fields are presented in alphabetical order for ease of reference and, as such, do not reflect any priority order.

The local labour market for graduates being very small and dynamic, the risk of high level human resource needs in any one field changing from scarcity to oversupply within a short time-span is real. Users of the LIPFS are, accordingly, invited to exert caution and to consult the appropriate authorities conversant with latest labour market developments, prior to taking any decision concerning their final choice of study.

Tertiary Education Commission

January, 2017

Methodology

The preparation of the LIPFS 2017/2019 was overseen by a Working Group under the chairmanship of the Executive Director, Tertiary Education Commission with representatives from both the public and private sectors, as follows:

Public Sector

- i. Ministry of Education and Human Resources, Tertiary Education and Scientific Research
- ii. Tertiary Education Commission
- iii. Ministry of Finance and Economic Development
- iv. Ministry of Labour, Industrial Relations, Employment and Training
- v. Ministry of Health and Quality of Life
- vi. Public Service Commission
- vii. Board of Investment
- viii. Statistics Mauritius
- ix. Human Resource Development Council

Private Sector

- i. Business Mauritius
- ii. Mauritius Chamber of Commerce & Industry
- iii. Mauritius Export Association (MEXA)

The role of the Working Group consisted in advising on the methodology to adopt for updating the List and in validating the List, after it is updated by the Commission. The Working Group also assists the latter in providing relevant inputs (data, studies or surveys) for revising the List.

Data Collection

Information to gauge the demand for (Table 1) and the supply of (Table 2) graduates was collected from numerous sources, as follows:

Table 1: Demand for Graduates- Sources of Data

<i>Demand-Side Data</i>	<i>Source</i>
Employer Survey on Demand for Graduates	Tertiary Education Commission
Human Resource Development Plan and Training Needs Analysis	Human Resource Development Council
Demand Trends for Professionals in New and Emerging sectors	Board of Investment
Occupation Permits delivered	Board of Investment
Work Permits issued to Expatriates	Ministry of Labour, Industrial Relations, Employment and Training
Vacancies notified in the press	Ministry of Labour, Industrial Relations, Employment and Training

Table 2: Supply of Graduates- Sources of Data

<i>Supply-Side Data</i>	<i>Source</i>
Enrolment Statistics	Tertiary Education Commission
Statistics on Registered Unemployed Graduates/Professionals	Ministry of Labour, Industrial Relations, Employment and Training
Number of Registered Graduates	Youth Employment Programme (YEP) Database
Labour Force Sample Surveys	Statistics Mauritius

Employer Survey: The Employer Survey was the main instrument used to assess demand for graduates in the economy. The survey targeted 642 organisations (the whole of the public sector that is all Ministries / Departments, parastatal bodies and local authorities or a total of 192 institutions and a sample of 450 private organisations) within the country based on a representative sampling frame provided by the Statistics Mauritius. A questionnaire was sent to each employer in the sampling frame to gauge the areas where they were currently experiencing difficulties to recruit graduates as well as to get an indication from them of their projected graduate requirement by field and level of expertise over the next 5 years. A total of 275 employers/ organisations, that

is 148 public (77.1%) and 127 private (28.2%), participated in the survey, representing a response rate of 42.8%.

Sectoral/ Key Informant Meetings: The Employer Survey was complemented by sectoral meetings organised by the Commission with key people in industry and the public sector to get their views with regard to the development and evolution of their respective sectors and tap their knowledge in terms of professionals and graduates requirement; and also to get confirmation from them on some of the findings arising from the survey, where appropriate. Meetings were held, amongst others, with the Financial Services, Tourism & Hospitality, IT, Ocean Economy, Training and Logistic sectors.

Identification and Selection of Priority Fields: Both the Employer Survey and the Sectoral Meetings contributed to set up the Graduate Demand Database which after statistical cleaning excluded the following therefrom:

- Fields where there was already a critical number of students pursuing their higher studies either locally or overseas
- Fields not available locally but with very low demand (one or two) to justify inclusion in the List
- Fields where no related programme could be identified either locally or overseas.
- Fields where critical mass of unemployed graduates exist.

International benchmarks in the form professionals to population ratios, where available (doctors/ engineers/ nurses/ etc per 1000 population), were also referred to, to determine whether there was an oversupply or scarcity in certain fields.

In parallel, consideration was given to Government policies including new growth poles being promoted (*e.g* Blue Economy) nationally in deciding upon the new fields to include in the LIPFS, although no effective demand existed within the economy as per the Employers' Survey.

The LIPFS 2017/2019 was finally arrived at after a thorough scrutiny of the earlier list. Those fields of study in respect of which low market demand exists relative to the supply of graduates or a significant number of graduates are unemployed or underemployed have been removed from the List. Likewise, new fields of study have been added thereto, where prospects for employing a higher number of graduates than what expected to become available on the labour market are real.

The LIPFS 2017/2019 is divided into two main parts:

Part A: Undergraduate Level

Part B: Postgraduate Level

PART A: LIST AT UNDERGRADUATE LEVEL

ISCED FIELD	Sub-Field	Programme of Study	Available in	
			Mauritius	Internationally
Education	Teacher training and education science	<ul style="list-style-type: none"> • Special Needs Education 		√
Humanities and Arts	Arts	<ul style="list-style-type: none"> • Creative Arts 	√	√
		<ul style="list-style-type: none"> • Design and Technology • Multimedia Technology and Design • Theatre Arts/ Film Production • Music Education* 	√ Offered as BEd √ Film Production only	√ √ √
Humanities and Arts	Humanities	<ul style="list-style-type: none"> • Mandarin/ Chinese • Spanish • German 		√ √ √
		<ul style="list-style-type: none"> • Translation Studies 	√ BA (Hons) French with Translation Studies	√
Social Sciences, Business and Law	Business and Administration	<ul style="list-style-type: none"> • Digital Marketing 		√
		<ul style="list-style-type: none"> • International Business 		√

**Teacher Education in Primary and Secondary Schools*

Attention of users is drawn to the fact that the LIPFS is indicative of the current state and the likely future trends of the graduate labour market. As such the possibility for immediate employment after graduation is not guaranteed by any institution or by Government.

PART A: LIST AT UNDERGRADUATE LEVEL (Ctd)

ISCED FIELD	Sub-Field	Programme of Study	Availability of Programme	
			Locally	Overseas
Social Sciences, Business and Law	Business and Administration	<ul style="list-style-type: none"> Logistics/Supply Chain Management 	√ Logistics & Transport Management	√
Science	Life Sciences	<ul style="list-style-type: none"> Marine Sciences 	√ Marine and Environment Sciences	√
	Physical Sciences	<ul style="list-style-type: none"> Oceanography 		√
	Computing	<ul style="list-style-type: none"> Computer Science 	√	√
		<ul style="list-style-type: none"> Information Technology/ Information and Communication Technology 	√	√
<ul style="list-style-type: none"> Multimedia and Web Development 		√	√	
<ul style="list-style-type: none"> Network Engineering 			√	
Engineering, Manufacturing and Construction	Engineering and Engineering Trades	<ul style="list-style-type: none"> Electrical Engineering 	√ In combination with Electronic Engineering	√
		<ul style="list-style-type: none"> Electronic Engineering 	√	√

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PART A: LIST AT UNDERGRADUATE LEVEL (Ctd)

ISCED FIELD	Sub-Field	Programme of Study	Availability of Programme	
			Locally	Overseas
Engineering, Manufacturing and Construction	Engineering and Engineering Trades	<ul style="list-style-type: none"> • Environmental Engineering • Mechanical Engineering • Renewable Energy Engineering 	√ In combination with other engineering fields √ √ In combination with other engineering fields	√ √ √
	Architecture and Building	<ul style="list-style-type: none"> • Civil Engineering • Construction Engineering • Green Architecture • Landscape Architecture • Structural Engineering • Water Engineering 	√	√ √ √ √ √
Agriculture	Agriculture, Forestry and Fishery	<ul style="list-style-type: none"> • Aquaculture 		√
	Veterinary	<ul style="list-style-type: none"> • Veterinary Medicine/ Sciences 		√

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ISCED FIELD	Sub-Field	Programme of Study	Availability of Programme	
			Locally	Overseas
Health and Welfare	Health	<ul style="list-style-type: none"> • Bio-medical Engineering 		√
		<ul style="list-style-type: none"> • Dental Mechanics/ Prosthesis 		√
		<ul style="list-style-type: none"> • Nursing with special reference to Intensive Care, Anesthesiology, Primary Care, Midwifery, Midwifery Educator, Psychiatric Nurse Educator 		√
		<ul style="list-style-type: none"> • Podiatry • Radiotherapy • Speech Therapy • Audio Therapy 		√ √ √ √

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PART B: LIST AT POSTGRADUATE LEVEL

ISCED FIELD	Sub-Field	Programme of Study	Availability of Programme	
			Locally	Overseas
Education	Teacher Training and Education Science	<ul style="list-style-type: none"> • Guidance and Counselling • Education Pedagogy • Educational Psychology • Quality Assurance in Education • Special Needs Education 		<ul style="list-style-type: none"> √ √ √ √ √
Humanities and Arts	Humanities	<ul style="list-style-type: none"> • Chinese Studies • Conservation and Museum Studies • Creative Writing • Translation Studies 	<ul style="list-style-type: none"> √ PG Dip in Translation Studies 	<ul style="list-style-type: none"> √ √ √ √
Social Sciences, Business and Law	Social and Behavioural Science	<ul style="list-style-type: none"> • Clinical/ Counselling Psychology 		<ul style="list-style-type: none"> √

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PART B: LIST AT POSTGRADUATE LEVEL (Ctd)

ISCED FIELD	Sub-Field	Programme of Study	Availability of Programme	
			Locally	Overseas
Social Sciences, Business and Law	Social and Behavioural Science	<ul style="list-style-type: none"> • Fisheries Economics • Marine Economics 		√
	Business and Administration	<ul style="list-style-type: none"> • Anti-Money Laundering • Asset and Investment Management • Digital Marketing • Forensic Accounting • Fund/ Trust Management • International Business • Integrated Resort Management • Insurance and Risk Management • Islamic Finance 	√ MBA International Business	√ √ √ √ √ √ √

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PART B: LIST AT POSTGRADUATE LEVEL (Ctd)

ISCED FIELD	Sub-Field	Programme of Study	Availability of Programme	
			Locally	Overseas
Social Sciences, Business and Law	Business and Administration	<ul style="list-style-type: none"> Logistic and Supply Chain Management 	√ MBA Logistics & Supply Chain Management	√
			MSc Operations and Logistics Management	
<ul style="list-style-type: none"> Marine Surveying 		√		
<ul style="list-style-type: none"> Maritime Safety and Security Management 		√		
<ul style="list-style-type: none"> Ocean Governance 		√		
<ul style="list-style-type: none"> Port and Terminal Management 		√		
<ul style="list-style-type: none"> Real Estate/Property Financing and Management 		√		
		<ul style="list-style-type: none"> Shipping and Logistics 		√
	Law	<ul style="list-style-type: none"> Arbitration Law 		√
		<ul style="list-style-type: none"> Cyber Law 		√

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ISCED FIELD	Sub-Field	Programme of Study	Availability of Programme	
			Locally	Overseas
Social Sciences, Business and Law	Law	<ul style="list-style-type: none"> Financial Regulation 		√
		<ul style="list-style-type: none"> Maritime Law 		√
Science	Life Sciences	<ul style="list-style-type: none"> Marine Science and Technology 		√
	Physical Sciences	<ul style="list-style-type: none"> Geosciences 	√	√
		<ul style="list-style-type: none"> Oceanography 	MSc Ocean Economy and Entrepreneurship MSc Coastal Engineering	√
	Mathematics and Statistics	<ul style="list-style-type: none"> Mathematical Computing/Modelling 		√
Computing		<ul style="list-style-type: none"> Cloud Computing 		√
		<ul style="list-style-type: none"> Computer Science 	√	√
		<ul style="list-style-type: none"> Data Analytics/Big Data Analytics 		√
		<ul style="list-style-type: none"> Database and Network Administration 		√

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ISCED FIELD	Sub-Field	Programme of Study	Availability of Programme	
			Locally	Overseas
Science	Computing	<ul style="list-style-type: none"> Information Technology 	√	√
		<ul style="list-style-type: none"> Mobile Computing/ Technology 		√
		<ul style="list-style-type: none"> Multimedia and Interactive computer Systems 		√
		<ul style="list-style-type: none"> Network Engineering 	√ Network Systems Engineering	√
		<ul style="list-style-type: none"> Networks and Security 		√
		<ul style="list-style-type: none"> Software Development/ Engineering 	√ Offered as Software engineering	√
		<ul style="list-style-type: none"> Systems Engineering 		√
		<ul style="list-style-type: none"> Web Design and Development 		√

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ISCED FIELD	Sub-Field	Programme of Study	Availability of Programme	
			Locally	Overseas
Engineering, Manufacturing and Construction	Engineering and Engineering Trades	<ul style="list-style-type: none"> Automation Engineering 	√ Energy Engineering offered in combination with other fields	√
		<ul style="list-style-type: none"> Energy Engineering/ Sustainability 		√
		<ul style="list-style-type: none"> Environmental Engineering 		√
		<ul style="list-style-type: none"> Geotechnical Engineering 		√
		<ul style="list-style-type: none"> Industrial/ Production Engineering 		√
		<ul style="list-style-type: none"> Marine/ Coastal Engineering 		√
	Manufacturing and Processing	<ul style="list-style-type: none"> Textile Technology 	√	
		<ul style="list-style-type: none"> Fiber Science/ Apparel Design 	√	
	Architecture and Building	<ul style="list-style-type: none"> Geographical Information System 	√	
<ul style="list-style-type: none"> Green Architecture 		√		

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ISCED FIELD	Sub-Field	Programme of Study	Availability of Programme	
			Locally	Overseas
Engineering, Manufacturing and Construction	Architecture and Building	• Structural Architecture		√
		• Structural Engineering		√
		• Urban Planning		√
		• Water Engineering		√
Agriculture	Agriculture, Forestry and Fishery	• Bio-Security/ Food Safety		√
		• Wildlife and Conservation Management		√
	Veterinary	• Veterinary Medicine		√
Health and Welfare	Health	• Anaesthesia		√
		• Ayurvedic Medicine/ Chinese Traditional Medicine		√
		• Endodontics		√
		• Geriatrics		√
		• Microbiology		√

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ISCED FIELD	Sub-Field	Programme of Study	Availability of Programme			
			Locally	Overseas		
Health and Welfare	Health	• Obstetrics and Gynaecology		√		
		• Occupational Health		√		
		• Periodontics		√		
		• Primary Care (Physician)		√		
		• Prosthodontics		√		
		• Prosthodontist		√		
		• Public Health Dentistry		√		
		• Virology		√		
		<u>Super-specialisation</u>				
		• Cardiac Surgery		√		
		• Child Psychiatry		√		
		• Clinical Haematology		√		
		• Endocrinology		√		

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ISCED FIELD	Sub-Field	Programme of Study	Availability of Programme	
			Locally	Overseas
Health and Welfare	Health	• Epidemiology		√
		• Gastroenterology		√
		• Interventional Cardiology		√
		• Interventional Radiology		√
		• Intensive Care Medicine		√
		• Medical Oncology		√
		• Neonatology		√
		• Nephrology		√
		• Neurosurgery		√
		• Nuclear Medicine		√
		• Nutrition and Dietetics with specialization in tube feeding		√
		• Paediatric Cardiology		√
		• Paediatric Surgery		√

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			Locally	Overseas
Health and Welfare	Health	<ul style="list-style-type: none"> • Palliative Care Physicians 		√
		<ul style="list-style-type: none"> • Plastic and Reconstructive Surgery 		√
		<ul style="list-style-type: none"> • Pharmaceutics 		√
		<ul style="list-style-type: none"> • Quality Control of Medicines (Masters) 		√
		<ul style="list-style-type: none"> • Spinal Surgery 		√
		<ul style="list-style-type: none"> • Thoracic Surgery 		√
		<ul style="list-style-type: none"> • Transplantation Surgery 		√
		<ul style="list-style-type: none"> • Urology 		√
Services	Environmental Protection	<ul style="list-style-type: none"> • Coastal and Ocean Management 	√	√
		<ul style="list-style-type: none"> • Hazard Waste Management 		√

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			Locally	Overseas
Services	Environmental Protection	<ul style="list-style-type: none"> Natural Hazards and Disaster Risk Management 		√
		<ul style="list-style-type: none"> Renewable Energy Systems/ Technologies 		√

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