

**MBEYA UNIVERSITY OF SCIENCE AND TECHNOLOGY**



**GUIDELINES FOR GRADUATE TRACER STUDY**

**FEBRUARY 2021**

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## **ABBREVIATIONS**

DQA	Director of Quality Assurance
MUST	Mbeya University of Science and Technology
TCU	Tanzania Commission for Universities
TS	Tracer Study
MIST	Mbeya Institute of Science and Technology
MTC	Mbeya Technical College

## **DEFINITION OF TERMS**

### **Alumnus (*plural: Alumni*)**

A graduate or former student of a particular campus, faculty, school, or college at the University.

### **Graduate**

A person who has successfully completed studies at a University or College and has received a certificate.

### **Tracer Study**

A survey conducted orally or in written form to Graduates from Educational Institutions which normally takes place sometimes after graduation.

### **Higher Learning Institution**

University, College or an Educational Institution which offers higher education.

## **1.0 BACKGROUND INFORMATION**

### **1.1 Vision, Mission and Objectives**

#### **1.1.1 Vision**

The Vision of Mbeya University of Science and Technology is to become the leading centre of excellence for knowledge, skills and applied education in Science and Technology.

#### **1.1.2. Mission**

The Mission of Mbeya University of Science and Technology is to develop academically, technologically and socially competent Graduates, Staff and other Stakeholders who will be responsive to the broader needs and challenges of the society specified by:

- (i) Facilitating appropriate tuition, practical training and support according to the needs of students and other customers;
- (ii) Encouraging staff commitment to quality education and services including research, consultancy and innovation;
- (iii) Fostering lifelong learning, honesty and responsibility;
- (iv) Promoting an environment conducive to human development; and
- (v) Promoting effective entrepreneurship and usage of appropriate technology that meet national and international needs and standards through skills and practical oriented training, research and consultancy.

## **2.0. SITUATIONAL ANALYSIS AND RATIONALE FOR GRADUATE TRACER STUDY GUIDELINE**

### **Why Tracer Study?**

Our University conducted Tracer Study only for Civil Engineering Programme in 2016 whereby it was sponsored by the Common wealth of learning Project, Other academic programmes need tracing of their graduates for the improvement of academic programmes, curriculum, mode of delivery, teaching and learning environment and facilities.

The empirical information generated from the Tracer Study will help to evaluate or to assess the education and training services we provide. The information will help to set a roadmap for curricula development and review, and make them more current and relevant for the students as well as market and industrial demands.

### **2.1. Objectives**

Our Tracer Study aims to:

- (i) Help on programme accreditation as a requirement from TCU;
- (ii) Provide uniform and standard guide in conducting Tracer Study;
- (iii) Help in quality monitoring and evaluation of University academic programmes, teaching and learning environment as well as students support services;
- (iv) Evaluate if mission and vision of the University are attained;
- (v) Get valuable information for the development of University;
- (vi) Provide information on labour market demand;
- (vii) Provide feedback from stakeholders which will be incorporated in curricula development and review; and
- (viii) Provide any other useful information.

### **2.2 Scope of the Study**

We target to conduct Tracer Study for specific cohort/intake in all academic programmes (at least by 75%) from 1986 onwards. This will use the programme

circle of each curriculum. During graduation graduates will fill their contact information in book will be used to trace them. The questionnaire **(Appendix I)** can be customized according to the specific academic programme, knowledge and skills expected be acquired by graduates.

### **3.0 PRINCIPLES**

- (i) Tracer Study will be conducted on paper, online, telephone, social media and other means depending on context or resource.
- (ii) There shall be a Research Assistant or focal person.
- (iii) There shall be dedicated team for Tracer Study.
- (iv) Confidentiality should be maintained.
- (v) Tracer Study shall be conducted within six (6) months to three (3) years after graduation.
- (vi) Tracer Study information or data shall be owned by Senate, and stored by DQA.

### **4.0. PROCESS OF DEVELOPING THE GRADUATE TRACER STUDY GUIDELINES DOCUMENT**

Graduate Tracer Study Guidelines was set by DQA as one of the outputs from the Tracer Study training conducted to a team of forty four (44) Academic Members of Staff, Principals, Directors, College, Departmental Quality Assurance Coordinators and Heads of Department from 14<sup>th</sup> to 15<sup>th</sup> January, 2021. The ideas generated after training were later developed into a comprehensive guidelines presented in this document.

In developing the document, literature review was of great help. Different materials on Graduate Tracer Study from different sources were consulted, including similar studies conducted in East Africa and Europe. Some of the documents which were reviewed in the process included:

- (i) Institutional Self-assessment for the Reaccreditation of the Mbeya University of Science and Technology Report, 2017; and



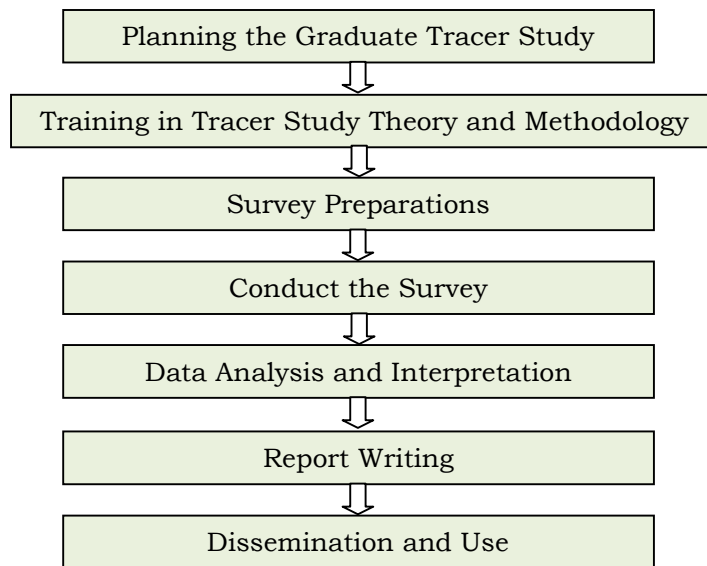
- (ii) Handbook for Standards and Guidelines for University Education in Tanzania, 2019.

### 5.0. TRACER STUDY PROCESS

The process of Tracer Study has series of sequential steps which when adhered to yield effective and efficient results. In carrying out a Graduate Tracer Study, the following seven (7) steps followed which have been refined from the literature review and best practices in GTS shall be:

- (i) Planning the Graduate Tracer Study;
- (ii) Training in theory and methodology;
- (iii) Survey preparations;
- (iv) Conducting the Survey;
- (v) Data analysis and interpretation;
- (vi) Report writing; and
- (vii) Dissemination and use.

The process is represented in the following model (Figure 1)



**Figure 1:** A model for tracer study

## **5.1. Steps for Conducting Graduate Tracer Study**

### **Step One: Planning the Tracer Study**

This step entails:

- (i) Identification of Tracer Study research team as well as focal person;
- (ii) Development of Tracer Study instruments;
- (iii) Identification of the study cohort and develop their addresses database;
- (iv) Soliciting support from the University Management including finance;
- (v) Sensitization through consultation and planning meetings and workshops;
- (vi) Identification of Tracer Study host for instance; in DQA, College
- (vii) Campus/Department, or Alumni office; and
- (viii) Budgets-sourced and mainstreamed into the University Almanac activity budgets.

### **Step Two: Training in Tracer Study Theory and Methodology**

After planning step, the identified research team should be trained on Tracer Study theory and methodology. The scope of training should range from imparting requisite knowledge of Tracer Study to methods of data analysis, data interpretation, data dissemination and use. The trainer should be a person who is skilled in that particular field from within the University or outside the University.

### **Step Three: Survey Preparation**

The third step is about survey preparation. It entails:

- (i) Identification and justification of Tracer Study population and cycle;
- (ii) Development of correct Graduates' address database;
- (iii) Finalizing data collection tool(s); and
- (iv) Training of enumerators/ Research Assistants on data collection and data collection tools.

#### **Step Four: Conducting Survey**

In this step, the actual survey is conducted. The survey can be Online and/or paper-based.

#### **Step Five: Data Analysis and Results Interpretation**

This is the step which deals with the analysis and interpretation of the collected data.

#### **Step Six: Report Writing**

Analysis and interpretation is normally followed by report writing. Report should be written by the team which did the survey. The report should be presented in the relevant meetings for deliberation depending on the authority which initiated the Tracer Study. For instance, if the initiator is the Department, then the starting point for sharing the outcomes of the survey are the departmental meetings upward the hierarchy. Inputs obtained in the meetings when the report is tabled should be incorporated in the report by the team undertaking the assignment. At every stage of report presentation, a representative from DQA shall be invited to oversee on the report writing progress.

#### **Step Seven: Dissemination and Use**

Dissemination entails spreading or circulating the report for different use in various occasions as indicated in the justifications for Tracer Study. The DQA shall be responsible in ensuring that the final report is to the expected standard before it goes public.

**APPENDIX**

**MBEYA UNIVERSITY OF SCIENCE AND TECHNOLOGY**

**GRADUATE TRACER STUDY QUESTIONNAIRE**

COHORT/INTAKE \_\_\_\_\_

**A. PERSONAL DETAILS**

**A1.** Names \_\_\_\_\_

**A2.** Sex (*tick*)      Male  Female

**A3.** Year of birth \_\_\_\_\_

**A4.** Place of birth: Country: \_\_\_\_\_ Region: \_\_\_\_\_ District: \_\_\_\_\_

**A5.** Nationality (*tick*) Tanzanian  Foreigner  (*state the country* \_\_\_\_\_)

**A6.** What is the highest educational level attained by your parent/ guardian?

S/N	Parent	Guardian	
1			Without education
2			Incomplete primary school
3			Complete primary school
4			Incomplete high school
5			Complete high school
6			Technical level incomplete
7			Technical level complete
8			Higher education incomplete
9			Higher education complete
10			Incomplete postgraduate
11			Complete postgraduate
12			Don't know
13			Others (please specify) _____

**A7.** What is your current contact information? (*write*)

1. E-mail address: \_\_\_\_\_
2. Postal address \_\_\_\_\_
3. Telephone: \_\_\_\_\_ or Mobile Phone: \_\_\_\_\_
4. Facebook: \_\_\_\_\_
5. Whatsapp: \_\_\_\_\_
6. Instagram: \_\_\_\_\_
7. Physical address: \_\_\_\_\_
8. Work place: \_\_\_\_\_
9. Other social media: (*please specify* \_\_\_\_\_)

**A8.** College/School/Campus belonged at MTC/MIST/MUST \_\_\_\_\_

**A9.** Department \_\_\_\_\_

**A10.** Programme studied \_\_\_\_\_ year \_\_\_\_\_

**A11.** Mode of study (*tick*)

Full time  Evening  Others  (*specify* \_\_\_\_\_)

**A12.** What is the highest level of education by the time of admission to the University for the programme in A10? (*tick*)

1. PhD
2. Masters
3. Bachelors
4. Diploma
5. Advanced level certificates/Form Six certificates
6. Ordinary level certificates/Form Four certificates

7. Certificates

8. Others  (*specify*\_\_\_\_\_)

**A13.** Which type of High School/College/University did you graduate before joining our University? (*tick*)

1. Public

2. Private

3. Others  (*specify*\_\_\_\_\_)

**A14.** What was the year of admission into the programme at MTC/MIST/MUST?  
*Month*\_\_\_\_\_ *Year*\_\_\_\_\_

**A15.** Which month and year did you graduate?

*Month*\_\_\_\_\_ *Year*\_\_\_\_\_

**A16.** Did you have any work experience before commencing your studies at MTC/MIST/MUST? (*tick*)

1. Yes

2. No  (*If No, skip A17*)

**A17.** Which work experience did you have? (*please state the work experience*)

\_\_\_\_\_  
\_\_\_\_\_

**A18.** How many months did you spend on the following activities between obtaining the entry qualification and your first enrolment to higher education? (*Please state only the major activities*)

Months

1. \_\_\_\_\_ Employment/self employment

2. \_\_\_\_\_ Child rearing, family care

3. \_\_\_\_\_ Military or civilian service

4. \_\_\_\_\_ Not employed, seeking employment

5. \_\_\_\_\_ Others (*please specify*\_\_\_\_\_)

**B. STUDY CONDITIONS, PROVISIONS AND EXPERIENCES, TEACHING AND LEARNING**

**B1.** Did you complete your study programme in the prescribed period of time? *(tick)*

1. Yes

2. No  *(If No, skip B2)*

**B2.** To what extent did the following reasons cause the delay in your study completion?

Reason	Not at all	Normal	Average	High	To a very high extent
	1	2	3	4	5
1. Financial reasons					
2. Failed m, examinations					
3. Writing dissertation/the sis					
4. Family reason					
5. Health reasons					
6. Employment responsibility					
7. Others (please specify) _____					

**B3.** How did you live at the University/College/Institute most of the time? *(tick)*

1. Alone in university dormitory room

2. Alone in a private apartment

3. With your parents

4. With your guardians/relatives

5. With your family (spouse, partner, children)

6. Shared hostel/apartment (with friends)

7. Other  *(please specify \_\_\_\_\_)*

**B4.**How your University/College/Institute Education was financed? (*tick*)  
(*Multiple responses accepted*)

- 1. Full Scholarship
- 2. Partial Scholarship
- 3. HESLB
- 4. Parents/family
- 5. Own Funds
- 6. Spouse
- 7. Other  (*please specify*\_\_\_\_\_)

**B5.** Did you have access to ICT /workshop /laboratory facilities? (*tick*)

- 1. Yes
- 2. No  (if No, skip B6)

**B6.**To what degree did ICT facilities make you feel competent on the following?

	<b>Not competent at all</b>	<b>Normal</b>	<b>Competent</b>	<b>Highly competent</b>
	1	2	3	4
1. Using MS office applications				
2. Accessing e-learning resources				
3. Browsing internet				
4. Online job applications				

**B7.** How would you rate the Library facilities in our University?

	<b>Very poor</b>	<b>poor</b>	<b>Good</b>	<b>Very good</b>	<b>Excellent</b>
	1	2	3	4	
1. Availability of study materials in your field of study					
2. Relevance of the study materials					
3. Availability of e-					



resources					
4. Adequacy of library space					
5. Ease of access to library materials					
6. Library time (opening and closing)					

**B8.** To what extent were the following modes of teaching and learning emphasized in your study?

	<b>Very poor</b>	<b>Poor</b>	<b>Good</b>	<b>Very good</b>	<b>Excellent</b>
	1	2	3	4	5
1. Lectures					
2. Demonstrations					
3. Participation in research projects/ project based					
4. Practical exercises/ Field work					
5. Mentorship					
6. Discussion					
7. Integration of ICT in teaching					
8. E – learning					

**B9.** How would you rate the following study facilities and support services?

	<b>Very poor</b>	<b>Poor</b>	<b>Good</b>	<b>Very good</b>	<b>Excellent</b>
	1	2	3	4	5
1. Lecture halls/rooms					
2. Accommodation facilities					
3. Feeding/cafeteria					
4. Health facilities					

5. Recreational facilities					
6. Students centers					
7. Counseling& guidance					
8. Scholarship/work-study					
9. Variety of academic programs offered					
10. Extra-curricula activities					
11. Financial services (Payment system)					

**B10.** How do you rate the following study experiences?

	<b>Very Poor</b>	<b>poor</b>	<b>Good</b>	<b>Very good</b>	<b>Excellent</b>
	1	2	3	4	5
1. Classroom environment (lectures & tutorials)					
2. Field attachment					
3. Community service and outreach					
4. Conducting field research					
5. Research supervision					
6. Mentorship					
7. Student organization					
8. Participation in extracurricular activities					
9. Social relations (peers, friends,					

social support)					
10. Formal relations (teaching and non-teaching)					

### C. JOB SEARCH AND TRANSITION TO WORK

**C1.** Have you ever made attempts to look for employment? (*tick*)

1. Yes  (*If Yes, go to C3*)

2. No

**C2.** What was your main reason for not looking for a job?

1. You started your own business

2. You continued with your studies

3. You already had a job

4. You were yet to look for a job

5. Other  (*please specify \_\_\_\_\_*)

**C3.** When did you start looking for a job?

1. Prior to completion of your studies

2. At the time of completion of your studies

3. After completion of your studies

4. You did not look for a job

**C4.** How long did it take you to get a job after obtaining your Certificate/Diploma/Degree?

1. Months \_\_\_\_\_

2. Years \_\_\_\_\_

**C5.**How did you look for your first job after graduation? (*tick*) (*Multiple responses are accepted*)

1. Media (Radio, Newspaper, TV)
2. Networking
3. Alumni
4. Friends/peers
5. Relatives
6. Employment agencies
7. Through attachment
8. Volunteering
9. Online services
10. Government posting
11. Others  (*please specify*\_\_\_\_\_)

**C6.**How did you get your first job after graduation? (*tick*)

1. Interview
2. Retention
3. Applications
4. Government posting
5. Others  (*please specify*\_\_\_\_\_)

**C7.**How many job applications did you make before employment? \_\_\_\_\_

**C8.** How many responses did you get regarding the job applications? \_\_\_\_\_

**C9.** How many interviews did you attend before getting employment? \_\_\_\_\_

**C10.a)** How many institutions or companies showed interest to employ you without application? \_\_\_\_\_

b) What prompted you to apply for your first job? (*tick*) (*Multiple responses are accepted*)

1. Salary
2. Benefits (housing, transport, medical, retirement package, opportunities for further studies, etc.)
3. Location
4. Job satisfaction Passion
5. Peer influence
6. Relevance to skills acquired
7. Only option/ availability of the job
8. Family influence
9. Career counselors

10. Others  (please specify \_\_\_\_\_)

**C11.** What challenges did you encounter during your job search? (tick) (Multiple responses accepted)

- 1. Inadequate experience
- 2. Insufficient qualifications
- 3. Limited jobs in your field of specialization
- 4. Inadequate networks
- 5. Corruption
- 6. Gender discrimination
- 7. Lack of information
- 8. Others  (please specify \_\_\_\_\_)

**C12.** If employed, how important were the following in influencing your employment?

	<b>No influence</b>	<b>Little influence</b>	<b>Normal influence</b>	<b>Very high influence</b>
	1	2	3	4
1. Field of Study				
2. GPA / GRADE				
3. Networks				
4. Relevance of program				
5. Reputation of my institution of higher learning				
6. Lack of competition				
7. Personality				
8. Additional Training after graduation				
9. Others (please specify)				

**C13.** Did you take any other training to improve your chances of employment?  
(tick)

- 1. Yes
- 2. No

**C14.** If Yes, what were the training(s) (tick) (Multiple responses accepted)

- 1. ICT
- 2. Accounting
- 3. Languages
- 4. Entrepreneurship
- 5. Leadership
- 6. Engineering
- 7. Others  (please specify \_\_\_\_\_)

**C15.** How useful were the trainings in assisting you get employed? (tick)

- 1. Not useful
- 2. Very low
- 3. Useful
- 4. Very useful

## D. EMPLOYMENT AND WORK

**D1.** Are you currently employed (including part-time employment and self-employment)? (tick)

- 1. Yes  (If Yes, skip D2)
- 2. No

**D2.** What describes your current situation? (tick) (Multiple answers possible)

- 1. Studying
- 2. Married
- 3. Looking for employment
- 4. Other  (please specify \_\_\_\_\_)

**D3.** Which of these applies to you? (tick)

- 1. Self-employment
- 2. Part-time employment
- 3. Full-time employment

**D4.**How many hours per week are you working on average? (*tick*)

1. Contract hours of my major assignment
2. Additional working hours of my major assignment (paid and unpaid overtime)
3. Working hours on other assignments (second occupation, side jobs etc)
4. Total working hours (for self-employed only)

**D5.**Please state the kind of your current employer/ institution. (*tick*)

1. Public employer
2. Non-profit organization/NGO
3. Private employer
4. Self employed
5. Other  (*please specify* \_\_\_\_\_)

**D6.**What is your current job position? \_\_\_\_\_

**D7.** What was your previous job position? \_\_\_\_\_

**D8.**What are your major tasks at work? \_\_\_\_\_

**D9.**If you are self-employed, which of the following characteristics are applicable to you? (*tick*) (*multiple answers possible*)

1. You are serving a single contractor
2. You took over an existing firm/office etc
3. You established a new firm/office etc
4. You were asked by your former employer to work self-employed
5. You are working at home
6. You have no employees
7. You have a partnership with friends/relatives
8. You are engaged in casual labour
9. Others  (*please specify* \_\_\_\_\_)

**D10.** What is your approximate monthly income? (*tick*)

1. 100,000 – 300,000/=
2. 300,000 – 600,000/=
3. 600,000 – 900,000/=
4. 900,000 -1,200,000/=
5. Above 1,200,000/=

**E. WORK AND COMPETENCIES, RELATIONSHIPS BETWEEN STUDY AND WORK**

**E1.** A) To what extent did you have the following competencies?

B) To what extent you studies contribute to the following competencies?

A					Competences	B				
Excellent	Very good	Good	Average	Not at all		Excellent	Very good	Good	Average	Not at all
1	2	3	4	5		1	2	3	4	5
					1. Knowledge of your field(s) or discipline(s)					
					2. ICT Skills					
					3. Critical Thinking					
					4. Research Skills					
					5. Communication Skills					
					6. Working independently					
					7. Time Management					
					8. Problem Solving Skills					
					9. Working Under Pressure					
					10. Team Work Ability					
					11. Adaptability					
					12. Leadership					
					13. Foreign Language					



**E2.** To what extent has your study program been a good basis for?

	<b>Excellent</b>	<b>Very good</b>	<b>Good</b>	<b>Average</b>	<b>Poor</b>
	1	2	3	4	5
1. Starting work					
2. Performing your current work tasks?					
3. Potential/future career(s)?					
4. Your personal development?					
5. Developing Entrepreneurship skills					

**E3.** To what extent are the following competencies utilized in your work?

	<b>Excellent</b>	<b>Very good</b>	<b>Good</b>	<b>Average</b>	<b>Poor</b>
	1	2	3	4	5
1. Knowledge of your field(s) or discipline(s)					
2. ICT Skills					
3. Critical Thinking					
4. Research Skills					
5. Communication skills					
6. Working independently					
7. Time management					
8. Problem solving skills					
9. Working under pressure					
10. Team work ability					
11. Adaptability					
12. Leadership					
13. Foreign Language					

**E4.** To what extent does your field of study relate to your area of work?

	Excellent	Very good	Good	Average	Poor
	1	2	3	4	5
Study work relations					

**E5.** What is the most appropriate level of academic qualifications required for your employment/work?

	Excellent	Very good	Good	Average	Poor
	1	2	3	4	5
1. PhD					
2. Masters degree					
3. Bachelor degree					
4. Diploma					
5. Certificate					
6. Others (specify _____ _____)					

**E6.** If you consider your employment and work as hardly appropriate and not linked to your education, why did you take it up? (*multiple answers possible*)

	Excellent	Very good	Good	Average	Poor
	1	2	3	4	5
1. Not applicable; my job is closely linked to my studies					
2. I have not (yet) been able to find a job more appropriate					
3. Better career prospects					

4. Work interest (Social Prestige)					
5. Job offers security					
6. Higher income					
7. Work flexibility					
8. Other (please specify)					

**E7.** To what extent do the following aspects apply to your current job situation?

	Excellent	Very good	Good	Average	Poor
	1	2	3	4	5
1. Work autonomy					
2. Clear and regulated work tasks					
3. Possibilities for applying acquired competencies					
4. Job security					
5. Social status and recognition					
6. Good work atmosphere					
7. Possibilities of further professional advancement					
8. High salary					

**E8.** How are you satisfied with your current job situation?

	Unsatisfied	Satisfied	Average	Highly satisfied
	1	2	3	4
Work satisfaction				

**F. COMMENTS/SUGGESTIONS**

**F1.** Taking into account your experience, which important changes would you recommend for:

1. Mbeya University Science and Technology?

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2. Your study programme?

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**F2.** How do you evaluate the questionnaire? (*tick*)

- 1. The length of the questionnaire is ok, the relevant topics are included
- 2. The questionnaire is too short, more topics should be included (*please specify*):

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**F3.** Please provide any other information that may be useful to this survey

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## **ACKNOWLEDGEMENT**

Mbeya University Science and Technology appreciates your valuable information and cooperation in filling this questionnaire. Your responses and comments will be useful for the improvement of quality of our program and University at large.

Thank you for your time and contribution!