



# Report on Campus Building Footprint (in Square Meters)

Tishk International University (TIU)

Academic Year 2024–2025

## 1. Introduction

This report provides a comprehensive overview of the total campus building footprint at Tishk International University (TIU) for the academic year 2024–2025. The campus building footprint represents the total built-up area of all university facilities and serves as a key indicator for infrastructure capacity, space utilization, and sustainability planning.

Understanding the extent of built-up space is essential for effective campus management, long-term development planning, and alignment with sustainability objectives, particularly in relation to energy use, land efficiency, and environmental impact.

## 2. Scope and Definition

The campus building footprint includes the total constructed area of all physical facilities within the university premises. This encompasses:

- Academic Buildings: Lecture halls, classrooms, laboratories, research centers, and faculty offices
- Administrative Buildings: Offices for university leadership, departments, and support services
- Service Facilities: Libraries, cafeterias, student centers, maintenance units, and other operational spaces

The footprint reflects the **gross built-up area**, including all floors and enclosed spaces, measured in square meters (m<sup>2</sup>).

## 3. Methodology

The calculation of the campus building footprint was carried out using a systematic and reliable approach based on the following methods:

### 1. Data Sources:

- Architectural drawings and approved building plans
- Geographic Information System (GIS) data where available
- Official facility and infrastructure records maintained by the university

### 2. Measurement Approach:

- The built-up area of each building was calculated by summing the floor areas of all levels.
- Both occupied and service spaces (e.g., corridors, storage areas, technical rooms) were included to ensure comprehensive coverage.

### 3. Data Validation:

- Cross-verification was conducted between architectural records and actual facility data to ensure accuracy and consistency.

- Any discrepancies were reviewed and resolved by the responsible unit.

#### 4. Aggregation:

- Individual building areas were aggregated to determine the total campus footprint.

## 4. Results

The total campus building footprint for the academic year 2024–2025 is:

- **Total Built-Up Area: 50410 m<sup>2</sup>**

This figure represents the cumulative area of all academic, administrative, and service buildings across the TIU campus.

## 6. Analysis and Interpretation

The reported building footprint provides insight into the scale and spatial capacity of the university's physical infrastructure. It reflects the university's ability to accommodate:

- Student learning and academic activities
- Administrative operations
- Support and service functions

From a sustainability perspective, the building footprint is directly linked to:

- Energy consumption patterns (larger areas typically require more energy for lighting, cooling, and heating)
- Resource management efficiency
- Land use optimization

The footprint also serves as a baseline for evaluating future campus expansion and infrastructure development.

## 7. Recommendations for Improvement

To enhance the efficiency and sustainability of campus space utilization, the following actions are recommended:

- To conduct periodic space utilization assessments to ensure efficient use of existing facilities.
- To integrate green building principles in future construction projects, including energy-efficient materials and designs.
- To expand the use of GIS and digital facility management systems for real-time monitoring and planning.
- To align future expansions with academic growth while minimizing environmental impact.
- To regularly maintain buildings to preserve structural integrity and improve operational efficiency.