



**TalentCorp**  
GROUP OF COMPANIES

**MyMAHIR**

# MALAYSIA CRITICAL OCCUPATIONS LIST

**2024/2025**

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## About TalentCorp

Talent Corporation Malaysia Berhad (TalentCorp), an agency under the Ministry of Human Resources (KESUMA) is dedicated to shaping national talent and **workforce development strategies**. As KESUMA's **strategic think tank**, TalentCorp supports **policy development** and provides collaborative solutions to address the evolving needs of Malaysia's workforce. Through strong partnerships with public and private stakeholders, TalentCorp works to **attract, nurture, and retain** the talent essential for economic growth and global competitiveness.

## MyMahir Malaysia Critical Occupations List (MyCOL)

The **MyMahir Malaysia Critical Occupations List (MyCOL)** is a national policy instrument introduced under the 11th Malaysia Plan to identify priority occupations facing skills shortages, based on labour market intelligence and direct industry input. Now in its 8th edition, the MyCOL 2024/2025 represents the most comprehensive version to date, featuring 66 occupations that are critical to Malaysia's economic transformation and increasingly difficult to fill.

## What is the MyCOL used for?

The MyMahir Malaysia Critical Occupations List (MyCOL) guides policymakers, educators, and industries in responding to shifting skill demands. It is used to:

- **Identify occupations experiencing persistent labour shortages.**
- **Support alignment across education, training, and workforce policies.**
- **Inform national frameworks such as the 13th Malaysia Plan, New Industrial Master Plan 2030 (NIMP 2030), National TVET Policy 2030, and the National Energy Transition Roadmap (NETR).**

MyCOL also shapes decisions in key areas, including immigration approvals (e.g. Returning Expert Programme, Residence Pass-Talent), academic programme development, and the design of upskilling, reskilling, new skilling, and TVET pathways to meet current and future industry needs.



Download the full report at

[www.talentcorp.com.my/mycol](http://www.talentcorp.com.my/mycol)



## MyCOL 2024/2025 HIGHLIGHTS

### What's New

- ✓ **Expanded scope:** MyCOL 2024/2025 has expanded its scope to cover **18 sectors in Malaysia with additional analysis on regional shortage**. This resulted in 66 critical occupations for Malaysia, as compared to 37 in the previous cycle which only looked at 3 sectors.
- ✓ **Wider industry reach:** A record **77% of respondents were SMEs and microenterprises**, offering a more grounded view of Malaysia's talent gaps.
- ✓ **Regional insights:** For the first time, MyCOL provides **state-level data across 6 regions**, enabling targeted policies and programmes.

### New Occupations in 2024/2025

Five occupations appear for the first time:

- Healthcare:**  
Pharmacists, Physiotherapists  
(reflecting rising healthcare demand).
- Technical/Infrastructure:**  
Chemical and Physical Science Technicians, Draughtspersons and Surveying Technicians
- Mobility:**  
Motor Vehicle Mechanics and Repairers

### Persistent Critical Occupations

Nine occupations have been listed in all eight MyCOL editions since 2015, reflecting enduring shortages in STEM, digital, and managerial talent:

- Finance Managers
- Business Services Managers
- Information and Communications Technology Managers
- Industrial and Production Engineers
- Mechanical Engineers
- Manufacturing Professionals
- Software Developers
- Information Technology System Administrators
- Mechanical Engineering Technicians

For detailed job titles, please refer to the occupation section in Chapter 5: Report Findings of the MyCOL 2024/2025 report.

### Employers Report Hiring Pressures

Most employers find the occupations to be neither more nor less hard to fill compared to previous cycles, signifying a stagnant gap between demand and supply.

- ✗ Challenges include shortages of job-ready candidates, pipeline gaps, and misaligned qualifications with workplace needs.

## Critical Occupations at a Glance

Here's a snapshot of the critical occupations driving Malaysia's economy, highlighting the skills they require, the sectors they power, the regions where demand is highest, and the strategies to meet the shortages.

### Finance Managers



#### Top Basic Skills

1. Numeracy
2. Planning and organising
3. Problem solving



#### Top Sectors

1. Manufacturing
2. Construction
3. Professional, scientific, and technical activities



#### Top Specific Skills

1. Business operations and financial activities skills
2. Safety and hazard management skills
3. Human resources skills



#### Top Strategies To Meet Shortages

1. Expanding local recruitment efforts
2. Raising wages
3. Increasing employees' training



#### Future Anticipated Skills Required

1. Analytical thinking
2. AI and big data
3. Resource management and operations

#### Top Regions where this occupation is critical



### Software Developers



#### Top Basic Skills

1. Digital engagement
2. Initiative and innovation
3. Numeracy



#### Top Sectors

1. Manufacturing
2. Transportation and storage
3. Information and communication



#### Top Specific Skills

1. Digital technologies and electronics skills
2. Operating procedures and processes skills
3. Communication and collaboration skills



#### Top Strategies To Meet Shortages

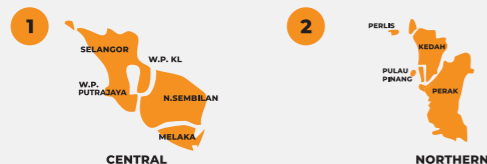
1. Expanding local recruitment efforts
2. Hiring less well-qualified applicants
3. Raising wages



#### Future Anticipated Skills Required

1. AI and big data
2. Technological literacy
3. Analytical thinking

#### Top Regions where this occupation is critical



### Pharmacists



#### Top Basic Skills

1. Oral communication
2. Learning
3. Numeracy



#### Top Sectors

1. Manufacturing
2. Wholesale and retail trade; repair of motor vehicles and motorcycles
3. Human health and social work activities



#### Top Specific Skills

1. Health and care skills
2. Communication and collaboration skills



#### Top Strategies To Meet Shortages

1. Expanding local recruitment efforts
2. Raising wages
3. Establishing or expanding partnerships with education or training providers focused on recruitment of graduates



#### Future Anticipated Skills Required

1. Health and care technologies
2. Service orientation and customer service

#### Top Regions where this occupation is critical



### Crane, Hoist And Related Plant Operators



#### Top Basic Skills

1. Planning and organising
2. Oral communication
3. Digital engagement



#### Top Sectors

1. Construction
2. Transportation and storage
3. Professional, scientific, and technical activities



#### Top Specific Skills

1. Construction skills
2. Vehicle operation skills
3. Production processes and machinery skills



#### Top Strategies To Meet Shortages

1. Convincing workers to delay retirement
2. Hiring temporary or contract workers
3. Outsourcing this job function



#### Future Anticipated Skills Required

1. Agriculture technologies
2. Quality control
3. Talent management

#### Top Regions where this occupation is critical



## 66 CRITICAL OCCUPATIONS



**Persistent Occupations**  
(featured in all eight MyCOL versions since 2015)



**New Occupations**

1. Managing Directors and Chief Executives
2. **Finance Managers**
3. Human Resource Managers
4. Policy and Planning Managers
5. **Business Services Managers**
6. Quality Managers
7. Sales and Marketing Managers
8. Agricultural, Forestry, and Livestock Production Managers
9. Manufacturing Managers
10. Supply, Distribution, and Related Managers
11. **Information and Communications Technology Managers**
12. Chemists
13. Mathematicians, Actuaries, and Statisticians
14. **Industrial and Production Engineers**
15. Civil Engineers
16. **Mechanical Engineers**
17. Chemical Engineers
18. Mining Engineers, Metallurgists, and Related Professionals
19. Engineering Professionals (Excluding Electrotechnology) Not Elsewhere Classified
20. Electrical Engineers
21. Electronic Engineers
22. Graphic and Multimedia Designers
23. Ship Engineers
24. **Manufacturing Professionals**
25. Specialist Medical Practitioners
26. Nursing Professionals
27. **Pharmacists**
28. Environmental and Occupational Health and Hygiene Professionals
29. **Physiotherapists**
30. University and Higher Education Teaching Professionals
31. Accountants and Auditors
32. Financial and Investment Advisers
33. Financial Analysts
34. Research and Development Professionals
35. Advertising and Marketing Professionals
36. Computer Systems Analysts
37. **Software Developers**
38. Application Programmers
39. Software and Application Developers and Analysts Not Elsewhere Classified
40. Database Designers and Administrators
41. **Information Technology System Administrators**
42. Computer Network Professionals
43. Data Professionals
44. Cyber Security Professionals
45. Animation and Visual Effects Professionals
46. Digital Games and E-Sport Professionals
47. Creative Contents Designer Professionals
48. **Chemical and Physical Science Technicians**
49. Civil Engineering Technicians
50. Electrical Engineering Technicians
51. Electronics Engineering Technicians
52. **Mechanical Engineering Technicians**
53. **Draughtspersons and Surveying Technicians**
54. Industrial and Production Technicians
55. Manufacturing Supervisors
56. Aircraft Technicians
57. Welders and Flame Cutters
58. **Motor Vehicle Mechanics and Repairers**
59. Agricultural and Industrial Machinery Mechanics and Repairers
60. Electrical Mechanics and Fitters
61. Rubber Products Machine Operators
62. Steam Engine and Boiler Operators
63. Stationary Plant and Machine Operators Not Elsewhere Classified
64. Heavy Truck and Lorry Drivers
65. Mobile Farm and Forestry Plant Operators
66. Crane, Hoist and Related Plant Operators