



**PROGRAMME SPECIFICATION**

|                       |   |                    |
|-----------------------|---|--------------------|
| <b>Program Name</b>   | <b>Bachelor of Technology Management (Production and Operations) with Honours</b> |                    |
| <b>Award</b>          | <b>Bachelor of Technology Management (Production and Operations) with Honours</b> |                    |
| <b>Study Duration</b> | Minimum   | Maximum            |
|                       | <b>7 semester</b>   | <b>11 semester</b> |

**Entry Requirements**

Minimum entry requirements for the program:

1. Malaysian Higher Education Certificate (STPM) Qualitification

University's basic requirements:

- i. Pass in SPM or equivalent with credit in Bahasa Melayu/ Bahasa Malaysia or credit in Bahasa Melayu / Bahasa Malaysia July Paper;
- ii. Pass the Malaysian Higher Certificate Education examination (STPM) with at least:
  - a. 2.00 PNGK;
  - b. Grade C (PNGK 2.000) in Pengajian Am;
  - c. Grade C (PNGK 2.00) in two (2) subjects which is Economics and Mathematics;
- iii. Obtained at least Band 1 in Malaysian University English Test (MUET).

Program's special requirements:

- i. Obtained at least Grade C (NGMP 2.00) in STPM in one of the following subjects:
  - a. Economics
  - b. Mathematics
 or
- ii. Obtained at least Grade 6C for SPM in Additional Mathematics;
- iii. At least a pass in Bahasa Inggeris for SPM
- iv. Candidate is not Honours blind and handicap which may interfere with practical works.

Note:

Student must obtain at least Band 2 in MUET before graduation.

2. Ministry of Higher Education Matriculation Program Qualitication:

University's basic requirements:

- i. Pass in SPM or equivalent with credit in Bahasa Melayu/ Bahasa Malaysia or credit in Bahasa Melayu / Bahasa Malaysia July Paper;
- ii. Pass MOHE Matriculation/ Asasi Sains UM/ Asasi UiTM with at least 2.00 PNGK;
- iii. Obtained at least Band 1 in Malaysian University English Test (MUET).

Program's special requirements

- i. Obtained at least Grade C (2.00) in Matriculation level / Asasi in one of the following subjects:
  - a. Economics
  - b. Trade
  - c. Mathematics
 or
- ii. Obtained at least Grade 6C for SPM in Additional Mathematics;
- iii. At least a pass in Bahasa Inggeris for SPM

**PROGRAMME SPECIFICATION**

- iv. Candidate is not colour blind and handicap which may interfere with practical works.

Note:

Student must obtain at least Band 2 in MUET before graduation.

3. Diploma or Equivalent

University's Basic Requirements

- i. Pass in SPM or equivalent with credit in Bahasa Melayu/ Bahasa Malaysia or credit in Bahasa Melayu / Bahasa Malaysia July Paper;
- ii. Possessed a Diploma or equivalent qualification recognized by the Malaysian government and approved by the University's Senate;
- iii. Obtained at least Band 1 in Malaysian University English Test (MUET).

Program's special requirements:

- i. Obtained Diploma or other qualification with at least 2.50 CPA from any IPTA or Polytechnic or other qualifications recognized as equivalent by the Malaysian government and approved by the University's Senate;
- ii. The Diploma that can be considered for entry to Bachelor of Technology Management (Production and Operations) with Honours are:
  - a. Diploma in Technology Management
  - b. Diploma in Business Management
  - c. Diploma in Accountancy
  - d. Diploma in Finance
  - e. Diploma in Banking
  - f. Diploma in Investment
  - g. Diploma in Agro Business
  - h. Diploma in Civil Engineering
  - i. Diploma in Electrical Engineering
  - j. Diploma in Mechanical Engineering
- iii. Pass Bahasa Inggeris in SPM; and
- iv. Candidate is not colour blind and handicap which may interfere with practical works.
- v. Candidates who do not fulfill the CPA/PNGK 2.50 requirements but have at least two (2) years of experience in related field can be considered.
- vi. Candidates who fulfill the minimum requirements but do not obtain Band 2 in MUET may apply for the program and if successful in the application must get at least Band 2 before graduation.

Note:

Diploma graduates may be considered for credit exemption based on areas and subjects taken.

**Program Educational Objectives (PEO)**

The educational objectives of the program is to produce Production and Operations Managers who are:

1. Capable of integrating the discipline of management, technology, mathematics and science in business environment.
2. Creative, innovative and competent to fulfill the development and technological needs of the nations.
3. Capable of communicating and managing information related to their field.

**PROGRAMME SPECIFICATION**

4. Ethical and responsible professionally in line with the society and national needs.

**Program Learning Outcomes (PLO)**

1. To possess and apply the principles of business and technology management in industrial environment.
2. To possess the technical knowledge and analytical skills in technology management.
3. To identify and solve management problems in technology management field creatively, innovatively and effectively.
4. To exemplify the behavior and attitude that contributes to the development of effective teamwork at work place.
5. To effectively communicate through writing and speaking in industrial environment.
6. To inculcate entrepreneurship culture for career development.
7. To demonstrate excellent attitude, personality and responsibility.
8. To be able to work in teams as a member or a leader to achieve goals.
9. To identify the individual needs and involvement in lifelong learning managing information professionally.

**Program Structure**

| Code                 | Courses                             | Credit | Lecture | Tutorial | Practical | Total Hours |
|----------------------|-------------------------------------|--------|---------|----------|-----------|-------------|
| UMB 1052             | Effective Communication             | 2      | 2       | 1        | 0         | 3           |
| UMB 1042             | Technical Writing                   | 2      | 2       | 1        | 0         | 3           |
| UMA 1162             | TITAS                               | 2      | 2       | 0        | 0         | 2           |
| UQ* 1**1             | Ko Kurikulum I                      | 1      | 0       | 0        | 3         | 3           |
| UMC 1022             | Creativity and Innovation           | 2      | 2       | 1        | 0         | 3           |
| UMA 1182<br>UMA 1142 | Islamic Studies / Moral Studies     | 2      | 2       | 0        | 0         | 2           |
| UQ* 1**1             | Ko Kurikulum II                     | 1      | 0       | 0        | 3         | 3           |
| UMS 1122             | Ethnic Relations                    | 2      | 2       | 0        | 0         | 2           |
| UMS 1113             | Nationhood and Current Developments | 3      | 3       | 0        | 0         | 3           |
| UMB 1011             | English for Academic Purpose        | 1      | 1       | 0        | 0         | 1           |
| UM* 1312             | Foreign Language                    | 2      | 2       | 1        | 0         | 3           |
| BSM1813              | Mathematics for Management          | 3      | 3       | 1        | 0         | 4           |
| BSM1823              | Statistics for Management           | 3      | 3       | 1        | 0         | 4           |



**PROGRAMME SPECIFICATION**

|           |   |    |   |   |   |   |
|-----------|---|----|---|---|---|---|
| BPB 40912 | Industrial Training                       | 12 | 0 | 0 | 0 | 4 |
| BPA 1023  | Principles of Management                  | 3  | 3 | 0 | 0 | 3 |
| BPA 1053  | Principles of Marketing                   | 3  | 3 | 1 | 0 | 4 |
| BPC 1293  | Business Financial Management             | 3  | 3 | 1 | 0 | 4 |
| BPA 1013  | Economics                                 | 3  | 3 | 1 | 0 | 4 |
| BPA 1043  | Human Resource Management                 | 3  | 3 | 1 | 0 | 4 |
| BPC 1142  | Industrial Psychology                     | 2  | 2 | 0 | 0 | 2 |
| BPB 3113  | Production and Operations Management      | 3  | 2 | 0 | 3 | 5 |
| BPC 3223  | Production Forecasting                    | 3  | 3 | 1 | 0 | 4 |
| BPB 4302  | Total Quality Management                  | 2  | 2 | 0 | 0 | 2 |
| BPB 3233  | Supply Chain Management                   | 3  | 3 | 1 | 0 | 4 |
| BPA 3093  | Project Management                        | 3  | 2 | 0 | 3 | 5 |
| BPC 3253  | Occupational Safety and Health Management | 3  | 3 | 1 | 0 | 4 |
| BPB 3293  | Business Law                              | 3  | 3 | 1 | 0 | 4 |
| BPC 4283  | Industrial Relations                      | 3  | 3 | 0 | 0 | 3 |
| BPB 2103  | Entrepreneurship                          | 3  | 3 | 1 | 0 | 4 |
| BPA 2073  | Management of Information System          | 3  | 2 | 0 | 3 | 5 |
| BPA 2083  | Technology Management                     | 3  | 3 | 1 | 0 | 4 |
| BPB 1192  | Computer Application in Business          | 2  | 1 | 0 | 3 | 4 |
| BPB 2223  | Manufacturing Technology                  | 3  | 2 | 0 | 3 | 5 |
| BPC 2193  | Material Technology and Selection         | 3  | 3 | 1 | 0 | 4 |
| BPC 2203  | Quality Control                           | 3  | 2 | 0 | 3 | 5 |
| BPC 2213  | Production Planning and Control           | 3  | 3 | 1 | 0 | 4 |
| BPB 3243  | Research Methods                          | 3  | 2 | 0 | 3 | 5 |
| BPC 3083  | Operational Research                      | 3  | 3 | 1 | 0 | 4 |
| BPC 3072  | Final Project I                           | 2  | 0 | 0 | 2 | 2 |
| BPC 4114  | Final Project II                          | 4  | 0 | 0 | 4 | 4 |
| BPC 3243  | Product Development                       | 3  | 2 | 0 | 3 | 5 |
| BPC 3263  | Industrial Production Costing             | 3  | 3 | 1 | 0 | 4 |
| BPC 4123  | Industrial Automation                     | 3  | 2 | 0 | 3 | 5 |
| BPB 3133  | Industrial Engineering                    | 3  | 3 | 1 | 0 | 4 |



**PROGRAMME SPECIFICATION**

**Programme Learning Outcome Matrix - Subjects**

| No | Kod       | Mata Pelajaran                       | LO 1 | LO 2 | LO 3 | LO 4 | LO 5 | LO 6 | LO 7 | LO 8 | LO 9 |
|----|-----------|--------------------------------------|------|------|------|------|------|------|------|------|------|
| 1  | BPC 40912 | Industrial Training                  |      |      |      |      |      |      |      |      |      |
| 2  | BPA 1023  | Principles of Management             |      |      |      |      |      |      |      |      |      |
| 3  | BPA 1053  | Principles of Marketing              |      |      |      |      |      |      |      |      |      |
| 4  | BPC 1293  | Business Financial Management        |      |      |      |      |      |      |      |      |      |
| 5  | BPA 1013  | Economics                            |      |      |      |      |      |      |      |      |      |
| 6  | BPA 1043  | Human Resource Management            |      |      |      |      |      |      |      |      |      |
| 7  | BPC 1142  | Industrial Psychology                |      |      |      |      |      |      |      |      |      |
| 8  | BPB 3113  | Production and Operations Management |      |      |      |      |      |      |      |      |      |
| 9  | BPC 3223  | Production Forecasting               |      |      |      |      |      |      |      |      |      |
| 10 | BPB 4083  | Total Quality Management             |      |      |      |      |      |      |      |      |      |
| 11 | BPB 3233  | Supply Chain Management              |      |      |      |      |      |      |      |      |      |
| 12 | BPA 3093  | Project Management                   |      |      |      |      |      |      |      |      |      |
| 13 | BPC 3253  | Occupational Safety and Health       |      |      |      |      |      |      |      |      |      |
| 14 | BPB 3293  | Business Law                         |      |      |      |      |      |      |      |      |      |
| 15 | BPC 4283  | Industrial Relations                 |      |      |      |      |      |      |      |      |      |
| 16 | BPA 2103  | Entrepreneurship                     |      |      |      |      |      |      |      |      |      |
| 17 | BPA 2073  | Management Information System        |      |      |      |      |      |      |      |      |      |
| 18 | BPA 2083  | Technology Management                |      |      |      |      |      |      |      |      |      |
| 19 | BPB 1192  | Computer Application in Business     |      |      |      |      |      |      |      |      |      |
| 20 | BPB 2223  | Manufacturing Technology             |      |      |      |      |      |      |      |      |      |
| 21 | BPC 2193  | Material Technology and Selection    |      |      |      |      |      |      |      |      |      |
| 22 | BPC 2203  | Quality Control                      |      |      |      |      |      |      |      |      |      |
| 23 | BPC 2213  | Production Planning and Control      |      |      |      |      |      |      |      |      |      |



**PROGRAMME SPECIFICATION**

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|----|----------|-------------------------------|--|--|--|--|--|--|--|--|--|--|
| 24 | BPB 3243 | Research Methods              |  |  |  |  |  |  |  |  |  |  |
| 25 | BPC 3083 | Operational Research          |  |  |  |  |  |  |  |  |  |  |
| 26 | BPC 3072 | Final Project I               |  |  |  |  |  |  |  |  |  |  |
| 27 | BPC 4114 | Final Project II              |  |  |  |  |  |  |  |  |  |  |
| 28 | BPC 3243 | Product Development           |  |  |  |  |  |  |  |  |  |  |
| 29 | BPB 3113 | Industrial Production Costing |  |  |  |  |  |  |  |  |  |  |
| 30 | BPC 4123 | Industrial Automation         |  |  |  |  |  |  |  |  |  |  |
| 31 | BPB 3133 | Industrial Engineering        |  |  |  |  |  |  |  |  |  |  |

**Delivery Methods**

This program will be delivered in various methods to fulfill the subject learning outcomes and in general create opportunity for pupils-centered learning. The methods are:

1. Lectures
2. Tutorial
3. Practical
4. Seminars
5. Technical visits
6. Field works
7. Problem Based-Learning
8. Project Based-Learning

**Evaluation Method**

1. Written Examinations
2. Test and quizzes
3. Assignments
4. Presentations
5. Practical
6. Laboratory Reports
7. Oral Examinations
8. Group Dynamic Skills and Observations
9. Log book
10. Portfolios
11. Industrial assessment

**Programme Award Requirements:**

1. Students' applications for awards should be approved by faculty;
2. Pass in all compulsory programme subjects;
3. Obtain total credit earned with pass;
4. Credit in Bahasa Melayu at Sijil Pelajaran Malaysia;
5. Obtain MUET Band 2 and above;

**PROGRAMME SPECIFICATION**

6. Application should be made using “Borang Permohonan Penganugerahan Ijazah” within the duration determined by the university;
7. Obtain awards approval by the Senat.

**Career Prospect**

Graduates have vast employment opportunities in the field of business administration as an executive administrative and management personnel in most government organisations. The career prospects to be explored by our graduates are appointment as asistantct managers, asistantct project managers, sales and marketing executives, human resource officers, marketing officers, production and operation officers, quality control officers and entrepreneurs.

**Related Information**

1. Akademic Sources:
  - i. Lecturers teaching university compulsory supporting subjects are staff from “Pusat Pengajian Sains (PPS), Pusat Pengajian Komunikasi and Kemanusiaan (PPKK), dan Pusat Kokurikulum, Sukan dan Kebudayaan (PKSK)”, Lecturer teaching core and major subjects are from Faculty of Technology Management academic staffs.
  - ii. Teaching and learning concepts emphasized hands-on approach. For example, in Manufacturing Technology subject, students are taught manufacturing theories and skills by doing technical works in the lab.
  - iii Training and discussions are also conducted through practical sessions in labs learning . in groups, interviews with industry personnels, field work and technical study visits.
2. Education Concept:

This program is based on practice-oriented and Outcome Based Education (OBE) concepts where students undergo theoretical and practical training in the university for six semesters and in the industry for three months.
3. Fees  
The fees for this program is RM 510.00 (One time fee for the Whole Program Duration) and RM 1,908.00 (Recurring Fee for Every Semester).
4. Faculty’s PROFORMA can be accessed at the university’s website, [www.uthm.edu.my](http://www.uthm.edu.my)

Prepared by

Certified by

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*Note: the information given are correct at time of publishing and can be changed at any time.*