| | | |
|---|---|---|
| | **Universitas Negeri Surabaya**<br>**Faculty of Engineering,**<br>**Mechanical Engineering Education Undergraduate Study Program** | **Document Code** |

# SEMESTER LEARNING PLAN

| Courses | CODE | Course Family | Credit Weight | | | SEMESTER | Compilation Date |
|---|---|---|---|---|---|---|---|
| **Drawing Production Machines** | 8320315234 | Study Program Elective Courses | **T=3** | **P=0** | **ECTS=4.77** | 2 | April 27, 2023 |

| AUTHORIZATION | SP Developer | Course Cluster Coordinator | Study Program Coordinator |
|---|---|---|---|
| | Ali Hasbi Ramadani, M.Pd; Akhmad Hafizh Ainur Rasyid, S.T., M.T.; Diastian Vinaya Wijanarko, S.T., M.T. | Ali Hasbi Ramadani, M.Pd. | Ir. Wahyu Dwi Kurniawan, S.Pd., M.Pd. |

**Learning model**: **Project Based Learning**

**Program Learning Outcomes (PLO)**

**PLO study program which is charged to the course**

| | |
|---|---|
| **PLO-10** | Have an understanding of mathematics and basic mechanical engineering |

**Program Objectives (PO)**

| | |
|---|---|
| **PO - 1** | Students have knowledge and skills in procedures for drawing pieces, special drawings, giving sizes, giving work symbols, drawing machine parts and making working drawings |

**PLO-PO Matrix**

| P.O | PLO-10 |
|---|---|
| PO-1 | |

**PO Matrix at the end of each learning stage (Sub-PO)**

| P.O | Week | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| PO-1 | | | | | | | | | | | | | | | | |

**Short Course Description**: Students can understand how to draw cuts, special drawings, give measurements, give work symbols, draw machine parts and make working drawings.

**References**

**Main :**


1. [1] Anwari. 1978. Menggambar Teknik Mesin 2. Jakarta: Departemen Pendidikan dan kebudayaan
2. [2] Baharudin Yakob. 1979. Menggambar Mesin 3. Jakarta: Departemen Pendidikan dan Kebudayaan.
3. [3] Juhana Ohan, Suratman. M. 2000. Menggambar Teknik Mesin. Bandung: Pustaka Grafika.
4. [4] Marbun, Moyn. 1993. Menggambar Teknik Mesin. Bandung: Penerbit M2S.


**Supporters:**


1. [5] Sato Takhesi, Sugiarto. 1986. Menggambar Mesin. Jakarta: Pradnya Paramita.
2. [6] Yogaswara, Eka. 2004. Membaca Gambar Teknik SMK. Bandung: Armico


**Supporting lecturer**: Ali Hasbi Ramadani, S.Pd., M.Pd.

| Week- | Final abilities of each learning stage (Sub-PO) | Evaluation | | Help Learning, Learning methods, Student Assignments, [ Estimated time] | | Learning materials [ References ] | Assessment Weight (%) |
|---|---|---|---|---|---|---|---|
| | | Indicator | Criteria & Form | Offline ( *offline* ) | Online ( *online* ) | | |

| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
|---|---|---|---|---|---|---|---|
| **1** | Be able to mention various technical drawing equipment | Choose a drawing tool that suits your needs | **Criteria:**<br>1. Able to show each drawing tool and its function<br>2. Able to draw using drawing equipment<br><br>**Form of Assessment** :<br>Participatory Activities, Project Results Assessment / Product Assessment | Question and answer discussion lecture and 3 X 50 exercises | Question and answer discussion lecture and 3 X 50 exercises | **Material:** Technical drawing equipment<br>**References:** *[1] Anwari. 1978. Mechanical Engineering Drawing 2. Jakarta: Department of Education and Culture* | 5% |
| **2** | Able to draw lines and letters | Skilled at drawing lines with different thicknesses Skilled at drawing letters using a letter mall | **Criteria:**<br>1. Be able to name various types of lines.<br>2. Be able to explain the function of each type of line.<br>3. Able to explain various types of letters.<br>4. Able to draw lines according to procedures.<br><br>**Form of Assessment** :<br>Participatory Activities, Project Results Assessment / Product Assessment | Lectures, discussions, questions and answers, exercises and assignments 3x50 | Lectures, discussions, questions and answers, exercises and assignments 3x50 | **Material:** drawing lines and letters<br>**References:** *[1] Anwari. 1978. Mechanical Engineering Drawing 2. Jakarta: Department of Education and Culture*<br><br>**Material:** drawing lines and letters.<br>**Reference:** *[2] Baharudin Yakob. 1979. Drawing Machines 3. Jakarta: Department of Education and Culture.*<br><br>**Material:** drawing lines and letters.<br>**Reference:** *[4] Marbun, Moyn. 1993. Mechanical Engineering Drawing. Bandung: M2S Publisher.* | 5% |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **3** | Able to draw lines and letters | Skilled at drawing lines with different thicknesses<br>Skilled at drawing letters using a letter mall | **Criteria:**<br>1. Be able to name various types of lines.<br>2. Be able to explain the function of each type of line.<br>3. Able to explain various types of letters.<br>4. Able to draw lines according to procedures.<br><br>**Form of Assessment** :<br>Project Results Assessment / Product Assessment | Lectures, discussions, questions and answers, exercises and assignments<br>3 X 50 | Lectures, discussions, questions and answers, exercises and assignments<br>3 X 50 | **Material:** drawing lines and letters<br>**References:** *[1] Anwari. 1978. Mechanical Engineering Drawing 2. Jakarta: Department of Education and Culture*<br><br>**Material:** drawing lines and letters<br>**References:** *[3] Juhana Ohan, Suratman. M. 2000. Mechanical Engineering Drawing. Bandung: Graphic Library.*<br><br>**Material:** drawing lines and letters.<br>**Reference:** *[4] Marbun, Moyn. 1993. Mechanical Engineering Drawing. Bandung: M2S Publisher.* | 5% |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **4** | Able to understand the basics of machining | Describe the definition of machining<br>Describe casting cutting parameters<br>Identify types of cutting tools and machines<br>Identify various defects and quality problems | **Criteria:**<br>1. Can explain the definition of projection.<br>2. Can explain the characteristics of isometric projection<br>3. Can explain the characteristics of dimetric projections.<br>4. Can explain the location of the view image according to European projection<br>5. Can determine the view of objects according to European projection<br>6. Can explain the location of the view image according to the American projection<br>7. Can determine the view of objects according to American projection.<br>8. Can draw isometric projections<br>9. Can draw dimetric projections<br>10. Can Draw American projections<br><br>**Forms of Assessment** : Participatory Activities, Project Results Assessment / Product Assessment, Tests | Lectures, discussions, questions and answers, exercises and assignments<br>3 X 50 | Lectures, discussions, questions and answers, exercises and assignments<br>3 X 50 | **Material:** projection<br>**References:** *[1] Anwari. 1978. Mechanical Engineering Drawing 2. Jakarta: Department of Education and Culture*<br><br>**Material:** American projections<br>**References:** *[2] Baharudin Yakob. 1979. Drawing Machines 3. Jakarta: Department of Education and Culture.*<br><br>**Material:** European projections<br>**References:** *[3] Juhana Ohan, Suratman. M. 2000. Mechanical Engineering Drawing. Bandung: Graphic Library.*<br><br>**Material:** various views<br>**References:** *[4] Marbun, Moyn. 1993. Mechanical Engineering Drawing. Bandung: M2S Publisher.*<br><br>**Material:** Orthogonal correction<br>**References:** *[5] Sato Takhesi, Sugiarto. 1986. Drawing Machines. Jakarta: Pradnya Paramita.* | 10% |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **5** | Able to understand the basics of machining | Describe the definition of machining<br>Describe casting cutting parameters<br>Identify types of cutting tools and machines<br>Identify various defects and quality problems | **Criteria:**<br>1. Can explain the definition of projection.<br>2. Can explain the characteristics of isometric projection<br>3. Can explain the characteristics of dimetric projections.<br>4. Can explain the location of the view image according to European projection<br>5. Can determine the view of objects according to European projection<br>6. Can explain the location of the view image according to the American projection<br>7. Can determine the view of objects according to American projection.<br>8. Can draw isometric projections<br>9. Can draw dimetric projections<br>10. Can Draw American projections<br><br>**Form of Assessment** :<br>Project Results Assessment / Product Assessment | Lectures, discussions, questions and answers, exercises and assignments<br>3 X 50 | Lectures, discussions, questions and answers, exercises and assignments<br>3 X 50 | **Material:** projection<br>**References:** *[1] Anwari. 1978. Mechanical Engineering Drawing 2. Jakarta: Department of Education and Culture*<br><br>**Material:** American projections<br>**References:** *[2] Baharudin Yakob. 1979. Drawing Machines 3. Jakarta: Department of Education and Culture.*<br><br>**Material:** European projections<br>**References:** *[3] Juhana Ohan, Suratman. M. 2000. Mechanical Engineering Drawing. Bandung: Graphic Library.*<br><br>**Material:** various views<br>**References:** *[4] Marbun, Moyn. 1993. Mechanical Engineering Drawing. Bandung: M2S Publisher.*<br><br>**Material:** Orthogonal correction<br>**References:** *[5] Sato Takhesi, Sugiarto. 1986. Drawing Machines. Jakarta: Pradnya Paramita.* | 10% |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **6** | Able to draw custom cuts and depictions | Skilled in drawing objects that are cut off. Skilled in drawing objects with a special view | **Criteria:**<br>1. Able to explain the function of cut images.<br>2. Able to explain how to cut objects.<br>3. Able to explain how to place cut images.<br>4. Able to explain the rules for drawing shading.<br>5. Able to name various kinds of cut pictures.<br>6. Able to identify specific depictions of objects<br>7. Able to draw shading.<br>8. Able to draw various types of pieces.<br>9. Able to draw special objects.<br><br>**Form of Assessment** :<br>Project Results Assessment / Product Assessment | Lectures, discussions, questions and answers, exercises and assignments<br>3 X 50 | Lectures, discussions, questions and answers, exercises and assignments<br>3 X 50 | **Material:** Images of<br>**Bibliography:** *[1] Anwari. 1978. Mechanical Engineering Drawing 2. Jakarta: Department of Education and Culture*<br><br>**Material:** Presentation of cut images<br>**References:** *[2] Baharudin Yakob. 1979. Drawing Machines 3. Jakarta: Department of Education and Culture.*<br><br>**Material:** description of special pieces<br>**References:** *[4] Marbun, Moyn. 1993. Mechanical Engineering Drawing. Bandung: M2S Publisher.* | 5% |
| **7** | Able to draw custom cuts and depictions | Skilled in drawing objects that are cut off. Skilled in drawing objects with a special view | **Criteria:**<br>1. Able to explain the function of cut images.<br>2. Able to explain how to cut objects.<br>3. Able to explain how to place cut images.<br>4. Able to explain the rules for drawing shading.<br>5. Able to name various kinds of cut pictures.<br>6. Able to identify specific depictions of objects<br>7. Able to draw shading.<br>8. Able to draw various types of pieces.<br>9. Able to draw special objects.<br><br>**Form of Assessment** :<br>Project Results Assessment / Product Assessment | Lectures, discussions, questions and answers, exercises and assignments<br>3 X 50 | Lectures, discussions, questions and answers, exercises and assignments<br>3 X 50 | **Material:** Images of<br>**Bibliography:** *[1] Anwari. 1978. Mechanical Engineering Drawing 2. Jakarta: Department of Education and Culture*<br><br>**Material:** Presentation of cut images<br>**References:** *[2] Baharudin Yakob. 1979. Drawing Machines 3. Jakarta: Department of Education and Culture.*<br><br>**Material:** description of special pieces<br>**References:** *[4] Marbun, Moyn. 1993. Mechanical Engineering Drawing. Bandung: M2S Publisher.* | 5% |
| **8** | UTS | Compliance with the answer key | **Criteria:**<br>Assessment rubric<br><br>**Form of Assessment** :<br>Project Results Assessment / Product Assessment, Test | 3 x 50 Assignments or Projects | 3 x 50 Assignments or Projects | **Material:** Meeting material 1-7<br>**References:** *[3] Juhana Ohan, Suratman. M. 2000. Mechanical Engineering Drawing. Bandung: Graphic Library.* | 20% |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **9** | Able to size images and add workmanship symbols to images | Skilled in drawing with dimensions<br>Skilled in drawing with symbols of workmanship | **Criteria:**<br>1. Able to draw techniques to their size<br>2. Able to draw techniques and their working symbols<br><br>**Form of Assessment** :<br>Participatory Activities | Lectures, discussions, questions and answers, exercises and assignments<br>3 X 50 | Lectures, discussions, questions and answers, exercises and assignments<br>3 X 50 | **Material:** giving measurements<br>**References:** *[1] Anwari. 1978. Mechanical Engineering Drawing 2. Jakarta: Department of Education and Culture*<br><br>**Material:** measuring lines<br>**References:** *[2] Baharudin Yakob. 1979. Drawing Machines 3. Jakarta: Department of Education and Culture.*<br><br>**Material:** image symbols and sizes<br>**References:** *[3] Juhana Ohan, Suratman. M. 2000. Mechanical Engineering Drawing. Bandung: Graphic Library.*<br><br>**Material:** machine/surface work<br>**References:** *[5] Sato Takhesi, Sugiarto. 1986. Drawing Machines. Jakarta: Pradnya Paramita.*<br><br>**Material:** machine/surface work<br>**References:** *[6] Yogaswara, Eka. 2004. Reading Vocational School Technical Drawings. Bandung: Armico* | 10% |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **10** | Able to size images and add workmanship symbols to images | Skilled in drawing with dimensions<br>Skilled in drawing with symbols of workmanship | **Criteria:**<br>1. Able to draw techniques to their size<br>2. Able to draw techniques and their working symbols<br><br>**Form of Assessment** :<br>Participatory Activities | Lectures, discussions, questions and answers, exercises and assignments<br>3 X 50 | Lectures, discussions, questions and answers, exercises and assignments<br>3 X 50 | **Material:** giving measurements<br>**References:** *[1] Anwari. 1978. Mechanical Engineering Drawing 2. Jakarta: Department of Education and Culture*<br><br>**Material:** measuring lines<br>**References:** *[2] Baharudin Yakob. 1979. Drawing Machines 3. Jakarta: Department of Education and Culture.*<br><br>**Material:** image symbols and sizes<br>**References:** *[3] Juhana Ohan, Suratman. M. 2000. Mechanical Engineering Drawing. Bandung: Graphic Library.*<br><br>**Material:** machine/surface work<br>**References:** *[5] Sato Takhesi, Sugiarto. 1986. Drawing Machines. Jakarta: Pradnya Paramita.*<br><br>**Material:** machine/surface work<br>**References:** *[6] Yogaswara, Eka. 2004. Reading Vocational School Technical Drawings. Bandung: Armico* | 10% |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **11** | Able to draw machine parts | Skilled in drawing machine parts | **Criteria:**<br>1. Able to draw threads and springs<br>2. Able to draw gears<br>3. Able to draw objects being welded<br><br>**Form of Assessment** :<br>Participatory Activities | Lectures, discussions, questions and answers, exercises and assignments<br>3 X 50 | Lectures, discussions, questions and answers, exercises and assignments<br>3 X 50 | **Material:** thread drawing<br>**References:** *[1] Anwari. 1978. Mechanical Engineering Drawing 2. Jakarta: Department of Education and Culture*<br><br>**Material:** spring drawing<br>**Reference:** *[2] Baharudin Yakob. 1979. Drawing Machines 3. Jakarta: Department of Education and Culture.*<br><br>**Material:** drawing gears<br>**References:** *[3] Juhana Ohan, Suratman. M. 2000. Mechanical Engineering Drawing. Bandung: Graphic Library.*<br><br>**Material:** welding drawing<br>**References:** *[4] Marbun, Moyn. 1993. Mechanical Engineering Drawing. Bandung: M2S Publisher.*<br><br>**Material:** drawing pin connections<br>**References:** *[5] Sato Takhesi, Sugiarto. 1986. Drawing Machines. Jakarta: Pradnya Paramita.* | 10% |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **12** | Able to draw machine parts | Skilled in drawing machine parts | **Criteria:**<br>1. Able to draw threads and springs<br>2. Able to draw gears<br>3. Able to draw objects being welded<br><br>**Form of Assessment** :<br>Participatory Activities | Lectures, discussions, questions and answers, exercises and assignments<br>3 X 50 | Lectures, discussions, questions and answers, exercises and assignments<br>3 X 50 | **Material:** thread drawing<br>**References:** *[1] Anwari. 1978. Mechanical Engineering Drawing 2. Jakarta: Department of Education and Culture*<br><br>**Material:** spring drawing<br>**Reference:** *[2] Baharudin Yakob. 1979. Drawing Machines 3. Jakarta: Department of Education and Culture.*<br><br>**Material:** drawing gears<br>**References:** *[3] Juhana Ohan, Suratman. M. 2000. Mechanical Engineering Drawing. Bandung: Graphic Library.*<br><br>**Material:** welding drawing<br>**References:** *[4] Marbun, Moyn. 1993. Mechanical Engineering Drawing. Bandung: M2S Publisher.*<br><br>**Material:** drawing pin connections<br>**References:** *[5] Sato Takhesi, Sugiarto. 1986. Drawing Machines. Jakarta: Pradnya Paramita.* | 10% |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **13** | Able to make working drawings | Skilled in making working drawings | **Criteria:**<br>Can draw machine components in detail<br><br>**Form of Assessment** :<br>Participatory Activities, Project Results Assessment / Product Assessment | question and answer discussion, assistance, project completion 3X 50 | question and answer discussion, assistance, project completion 3X 50 | **Material:** projection<br>**References:** *[1] Anwari. 1978. Mechanical Engineering Drawing 2. Jakarta: Department of Education and Culture*<br><br>**Material:** pieces<br>**Bibliography:** *[2] Baharudin Yakob. 1979. Drawing Machines 3. Jakarta: Department of Education and Culture.*<br><br>**Material:** giving measurements<br>**References:** *[3] Juhana Ohan, Suratman. M. 2000. Mechanical Engineering Drawing. Bandung: Graphic Library.*<br><br>**Material:** surface configuration<br>**References:** *[4] Marbun, Moyn. 1993. Mechanical Engineering Drawing. Bandung: M2S Publisher.*<br><br>**Material:** drawing springs and threads<br>**References:** *[5] Sato Takhesi, Sugiarto. 1986. Drawing Machines. Jakarta: Pradnya Paramita.*<br><br>**Material:** drawing of gears and connections<br>**References:** *[6] Yogaswara, Eka. 2004. Reading Vocational School Technical Drawings. Bandung: Armico* | 10% |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **14** | Able to make working drawings | Skilled in making working drawings | **Criteria:**<br>Can draw machine components in detail<br><br>**Form of Assessment** :<br>Project Results Assessment / Product Assessment | question and answer discussion, assistance, project completion 3X 50 | question and answer discussion, assistance, project completion 3X 50 | **Material:** projection<br>**References:** *[1] Anwari. 1978. Mechanical Engineering Drawing 2. Jakarta: Department of Education and Culture*<br><br>**Material:** pieces<br>**Bibliography:** *[2] Baharudin Yakob. 1979. Drawing Machines 3. Jakarta: Department of Education and Culture.*<br><br>**Material:** giving measurements<br>**References:** *[3] Juhana Ohan, Suratman. M. 2000. Mechanical Engineering Drawing. Bandung: Graphic Library.*<br><br>**Material:** surface configuration<br>**References:** *[4] Marbun, Moyn. 1993. Mechanical Engineering Drawing. Bandung: M2S Publisher.*<br><br>**Material:** drawing springs and threads<br>**References:** *[5] Sato Takhesi, Sugiarto. 1986. Drawing Machines. Jakarta: Pradnya Paramita.*<br><br>**Material:** drawing of gears and connections<br>**References:** *[6] Yogaswara, Eka. 2004. Reading Vocational School Technical Drawings. Bandung: Armico* | 10% |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **15** | Able to make working drawings | Skilled in making working drawings | **Criteria:**<br>Can draw machine components in detail<br><br>**Form of Assessment** :<br>Project Results Assessment / Product Assessment | question and answer discussion, assistance, project completion<br>3X 50 | question and answer discussion, assistance, project completion<br>3X 50 | **Material:** projection<br>**References:** *[1] Anwari. 1978. Mechanical Engineering Drawing 2. Jakarta: Department of Education and Culture*<br><br>**Material:** pieces<br>**Bibliography:** *[2] Baharudin Yakob. 1979. Drawing Machines 3. Jakarta: Department of Education and Culture.*<br><br>**Material:** giving measurements<br>**References:** *[3] Juhana Ohan, Suratman. M. 2000. Mechanical Engineering Drawing. Bandung: Graphic Library.*<br><br>**Material:** surface configuration<br>**References:** *[4] Marbun, Moyn. 1993. Mechanical Engineering Drawing. Bandung: M2S Publisher.*<br><br>**Material:** drawing springs and threads<br>**References:** *[5] Sato Takhesi, Sugiarto. 1986. Drawing Machines. Jakarta: Pradnya Paramita.*<br><br>**Material:** drawing of gears and connections<br>**References:** *[6] Yogaswara, Eka. 2004. Reading Vocational School Technical Drawings. Bandung: Armico* | 10% |
| **16** | UAS | Compliance with the answer key | **Criteria:**<br>Assessment rubric | TEST<br>3 X 50 | TEST<br>3 X 50 | **Material:** All material<br>**References:** *[6] Yogaswara, Eka. 2004. Reading Vocational School Technical Drawings. Bandung: Armico* | 30% |

**Evaluation Percentage Recap: Project Based Learning**

| No | Evaluation | Percentage |
|---|---|---|

| | | |
|---|---|---|
| 1. | Participatory Activities | 53.33% |
| 2. | Project Results Assessment / Product Assessment | 68.33% |
| 3. | Test | 13.33% |
| | | 100% |

**Notes**

1. **Learning Outcomes of Study Program Graduates (PLO - Study Program)** are the abilities possessed by each Study Program graduate which are the internalization of attitudes, mastery of knowledge and skills according to the level of their study program obtained through the learning process.
2. **The PLO imposed on courses** are several learning outcomes of study program graduates (CPL-Study Program) which are used for the formation/development of a course consisting of aspects of attitude, general skills, special skills and knowledge.
3. **Program Objectives (PO)** are abilities that are specifically described from the PLO assigned to a course, and are specific to the study material or learning materials for that course.
4. **Subject Sub-PO (Sub-PO)** is a capability that is specifically described from the PO that can be measured or observed and is the final ability that is planned at each learning stage, and is specific to the learning material of the course.
5. **Indicators for assessing** abilities in the process and student learning outcomes are specific and measurable statements that identify the abilities or performance of student learning outcomes accompanied by evidence.
6. **Assessment Criteria** are benchmarks used as a measure or measure of learning achievement in assessments based on predetermined indicators. Assessment criteria are guidelines for assessors so that assessments are consistent and unbiased. Criteria can be quantitative or qualitative.
7. **Forms of assessment:** test and non-test.
8. **Forms of learning:** Lecture, Response, Tutorial, Seminar or equivalent, Practicum, Studio Practice, Workshop Practice, Field Practice, Research, Community Service and/or other equivalent forms of learning.
9. **Learning Methods:** Small Group Discussion, Role-Play & Simulation, Discovery Learning, Self-Directed Learning, Cooperative Learning, Collaborative Learning, Contextual Learning, Project Based Learning, and other equivalent methods.
10. **Learning materials** are details or descriptions of study materials which can be presented in the form of several main points and sub-topics.
11. **The assessment weight** is the percentage of assessment of each sub-PO achievement whose size is proportional to the level of difficulty of achieving that sub-PO, and the total is 100%.
12. TM=Face to face, PT=Structured assignments, BM=Independent study.