

| | |
|---|---|
| Module designation | <i>Queuing Theory</i> |
| Semester(s) in which the module is taught | 6 |
| Person responsible for the module | <i>Dr. Nikenasih Binatari S.Si., M.Si.</i> |
| Language | <i>Bahasa Indonesia</i> |
| Relation to curriculum | <i>Elective course</i> |
| Teaching methods | <i>150 minutes lectures and 180 minutes structured activities per week.</i> |
| Workload (incl. contact hours, self-study hours) | <i>Total workload is 136 hours per semester which consists of 150 minutes lectures, 180 minutes structured activities, and 180 minutes self-study per week for 16 weeks.</i> |
| Credit points | 3 |
| Required and recommended prerequisites for joining the module | <i>MAT6315 - Probability Theory</i> |
| Module objectives/intended learning outcomes | <p><i>After taking this course the students have ability to:</i></p> <p><i>CO1. Demonstrate collaborative attitude and independence in carrying out individual tasks and group assignments</i></p> <p><i>CO2. Communicate ideas in solving mathematical problems in writing or verbally</i></p> <p><i>CO3. Describe concepts and methods in queuing theory</i></p> <p><i>CO4. Applying concepts and methods in queuing theory</i></p> |
| Content | <i>This course discusses queuing system elements, arrival and departure process, queuing model, M / G / 1 system, Multiserver, the application of queuing theory.</i> |
| Examination forms | <i>CO1: Attitude assessment is carried out at each meeting by observation and / or self-assessment techniques using the assumption that basically every student has a good attitude.</i> |

| Study and examination requirements | <p>The student is given a value of very good or not good attitude if they show it significantly compared to other students in general. The result of attitude assessment is not a component of the final grades, but as one of the requirements to pass the course. Students will pass from this course if at least have a good attitude.</p> <p>The final mark will be weight as follow:</p> <table><tr><th>No</th><th>CO</th><th>Assessment Object</th><th>Assessment Technique</th><th>Weight</th></tr><tr><td>1</td><td>CO 1</td><td>a. Presentat ion b. Discussio n</td><td>Observation</td><td>5% 10%</td></tr><tr><td>2</td><td>CO 2, CO 3, CO 4</td><td>a. Individual assignme nt b. Group assignme nt c. Quiz d. Midterm e. Final test</td><td>Written</td><td>10% 10% 20% 20% 25%</td></tr><tr><td colspan="4">Total</td><td>100%</td></tr></table> | No | CO | Assessment Object | Assessment Technique | Weight | 1 | CO 1 | a. Presentat ion b. Discussio n | Observation | 5% 10% | 2 | CO 2, CO 3, CO 4 | a. Individual assignme nt b. Group assignme nt c. Quiz d. Midterm e. Final test | Written | 10% 10% 20% 20% 25% | Total | | | | 100% |
|------------------------------------|---|---|----------------------|---------------------------------|----------------------|--------|---|------|--|-------------|-----------|---|---------------------|---|---------|---------------------------------|-------|--|--|--|------|
| No | CO | Assessment Object | Assessment Technique | Weight | | | | | | | | | | | | | | | | | |
| 1 | CO 1 | a. Presentat ion b. Discussio n | Observation | 5% 10% | | | | | | | | | | | | | | | | | |
| 2 | CO 2, CO 3, CO 4 | a. Individual assignme nt b. Group assignme nt c. Quiz d. Midterm e. Final test | Written | 10% 10% 20% 20% 25% | | | | | | | | | | | | | | | | | |
| Total | | | | 100% | | | | | | | | | | | | | | | | | |
| Reading list | <p>1. Taha, Hamdy A. 1996. <i>Riset Operasi Edisi kelima (terjemahan)</i>, Jilid 2. Jakarta :BinarupaAksara.</p> <p>2. Hillier/Lieberman. 2001. <i>Introduction to Operation Research. Interactive e-text</i>. The McGraw Hill Company.</p> <p>3. Saaty, Thomas L. 1961. <i>Elements of Queueing Theory with applications</i>. New York. Dover publications, Inc.</p> <p>4. Bunday, Brian D. (1996). <i>An Introduction to Queueing Theory</i>. New York :Johm Willey and Sons.</p> <p>5. Cooper, Robert B. 1981. <i>Introduction to Queueing Theory Second Edition</i>. New York. Elsevier North Holland., Inc.</p> | | | | | | | | | | | | | | | | | | | | |