



Universitas Negeri Surabaya  
S1 Sains Data

Kode  
Dokumen

RENCANA PEMBELAJARAN SEMESTER

|                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                           |           |                            |             |                           |                |      |       |        |        |        |   |  |  |        |   |  |  |        |  |   |  |        |  |   |  |        |  |  |   |        |  |  |   |
|------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|----------------------------|-------------|---------------------------|----------------|------|-------|--------|--------|--------|---|--|--|--------|---|--|--|--------|--|---|--|--------|--|---|--|--------|--|--|---|--------|--|--|---|
| MATA KULIAH (MK)                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | KODE                                                                                                                                                                                                                                                                                                                                                                                                      | Rumpun MK |                            | BOBOT (sks) | SEMESTER                  | Tgl Penyusunan |      |       |        |        |        |   |  |  |        |   |  |  |        |  |   |  |        |  |   |  |        |  |  |   |        |  |  |   |
| Matematika Diskrit                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 4920203010                                                                                                                                                                                                                                                                                                                                                                                                |           |                            | 3           |                           | 4 Oktober 2026 |      |       |        |        |        |   |  |  |        |   |  |  |        |  |   |  |        |  |   |  |        |  |  |   |        |  |  |   |
| OTORISASI                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Pengembang RPS                                                                                                                                                                                                                                                                                                                                                                                            |           | Koordinator RMK            |             | Koordinator Program Studi |                |      |       |        |        |        |   |  |  |        |   |  |  |        |  |   |  |        |  |   |  |        |  |  |   |        |  |  |   |
|                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                           |           | Yuliani Puji Astuti, M.Si. |             | YULIANI PUJI ASTUTI       |                |      |       |        |        |        |   |  |  |        |   |  |  |        |  |   |  |        |  |   |  |        |  |  |   |        |  |  |   |
| Deskripsi Singkat MK                                             | Pada mata kuliah ini akan dipelajari konsep-konsep dalam matematika diskrit, antara lain logika, struktur diskrit dasar, dan analisis kombinatorik, yang menjadi dasar bagi topik-topik lanjutan dan aplikasinya pada bidang sains data. Dengan demikian mahasiswa akan memiliki pengalaman belajar untuk berfikir secara kritis dan mampu memberikan keputusan yang tepat tentang penggunaan konsep tersebut. Mata kuliah ini tidak memiliki mata kuliah prasyarat. |                                                                                                                                                                                                                                                                                                                                                                                                           |           |                            |             |                           |                |      |       |        |        |        |   |  |  |        |   |  |  |        |  |   |  |        |  |   |  |        |  |  |   |        |  |  |   |
| Capaian Pembelajaran (CP)                                        | CPL-PRODI yang dibebankan pada MK                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                           |           |                            |             |                           |                |      |       |        |        |        |   |  |  |        |   |  |  |        |  |   |  |        |  |   |  |        |  |  |   |        |  |  |   |
|                                                                  | CPL-3                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Mengembangkan pemikiran logis, kritis, sistematis, dan kreatif dalam melakukan pekerjaan yang spesifik di bidang keahliannya serta sesuai dengan standar kompetensi kerja bidang yang bersangkutan                                                                                                                                                                                                        |           |                            |             |                           |                |      |       |        |        |        |   |  |  |        |   |  |  |        |  |   |  |        |  |   |  |        |  |  |   |        |  |  |   |
|                                                                  | CPL-19                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Mampu menerapkan pemikiran logis, kritis, sistematis, dan inovatif dalam mendesain, mengimplementasi dan mengevaluasi ilmu pengetahuan dan teknologi yang memperhatikan dan menerapkan nilai humaniora dalam bidang sains data                                                                                                                                                                            |           |                            |             |                           |                |      |       |        |        |        |   |  |  |        |   |  |  |        |  |   |  |        |  |   |  |        |  |  |   |        |  |  |   |
|                                                                  | CPL-27                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Menguasai teori matematika, statistika, dan ilmu komputer/informatika                                                                                                                                                                                                                                                                                                                                     |           |                            |             |                           |                |      |       |        |        |        |   |  |  |        |   |  |  |        |  |   |  |        |  |   |  |        |  |  |   |        |  |  |   |
|                                                                  | Capaian Pembelajaran Mata Kuliah (CPMK)                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                           |           |                            |             |                           |                |      |       |        |        |        |   |  |  |        |   |  |  |        |  |   |  |        |  |   |  |        |  |  |   |        |  |  |   |
|                                                                  | CPMK-1                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Mahasiswa mampu memahami konsep logika proposisi dan implementasinya                                                                                                                                                                                                                                                                                                                                      |           |                            |             |                           |                |      |       |        |        |        |   |  |  |        |   |  |  |        |  |   |  |        |  |   |  |        |  |  |   |        |  |  |   |
|                                                                  | CPMK-2                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Mahasiswa mampu memahami implementasi ekuivalensi, predikat, kuantor, dan aturan inferensi                                                                                                                                                                                                                                                                                                                |           |                            |             |                           |                |      |       |        |        |        |   |  |  |        |   |  |  |        |  |   |  |        |  |   |  |        |  |  |   |        |  |  |   |
|                                                                  | CPMK-3                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Mahasiswa mampu memahami konsep pembuktian dan induksi matematis                                                                                                                                                                                                                                                                                                                                          |           |                            |             |                           |                |      |       |        |        |        |   |  |  |        |   |  |  |        |  |   |  |        |  |   |  |        |  |  |   |        |  |  |   |
|                                                                  | CPMK-4                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Mahasiswa memahami dan mengimplementasikan konsep dasar graf dan tree                                                                                                                                                                                                                                                                                                                                     |           |                            |             |                           |                |      |       |        |        |        |   |  |  |        |   |  |  |        |  |   |  |        |  |   |  |        |  |  |   |        |  |  |   |
|                                                                  | CPMK-5                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Mahasiswa mampu memahami konsep himpunan dan fungsi                                                                                                                                                                                                                                                                                                                                                       |           |                            |             |                           |                |      |       |        |        |        |   |  |  |        |   |  |  |        |  |   |  |        |  |   |  |        |  |  |   |        |  |  |   |
|                                                                  | CPMK-6                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Mahasiswa mampu memahami konsep notasi dan counting                                                                                                                                                                                                                                                                                                                                                       |           |                            |             |                           |                |      |       |        |        |        |   |  |  |        |   |  |  |        |  |   |  |        |  |   |  |        |  |  |   |        |  |  |   |
|                                                                  | Matrik CPL - CPMK                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                           |           |                            |             |                           |                |      |       |        |        |        |   |  |  |        |   |  |  |        |  |   |  |        |  |   |  |        |  |  |   |        |  |  |   |
|                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <table><tr><td>CPMK</td><td>CPL-3</td><td>CPL-19</td><td>CPL-27</td></tr><tr><td>CPMK-1</td><td>✓</td><td></td><td></td></tr><tr><td>CPMK-2</td><td>✓</td><td></td><td></td></tr><tr><td>CPMK-3</td><td></td><td>✓</td><td></td></tr><tr><td>CPMK-4</td><td></td><td>✓</td><td></td></tr><tr><td>CPMK-5</td><td></td><td></td><td>✓</td></tr><tr><td>CPMK-6</td><td></td><td></td><td>✓</td></tr></table> |           |                            |             |                           |                | CPMK | CPL-3 | CPL-19 | CPL-27 | CPMK-1 | ✓ |  |  | CPMK-2 | ✓ |  |  | CPMK-3 |  | ✓ |  | CPMK-4 |  | ✓ |  | CPMK-5 |  |  | ✓ | CPMK-6 |  |  | ✓ |
|                                                                  | CPMK                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | CPL-3                                                                                                                                                                                                                                                                                                                                                                                                     | CPL-19    | CPL-27                     |             |                           |                |      |       |        |        |        |   |  |  |        |   |  |  |        |  |   |  |        |  |   |  |        |  |  |   |        |  |  |   |
|                                                                  | CPMK-1                                                                                                                                                                                                                                                                                                                                                                                                                                                               | ✓                                                                                                                                                                                                                                                                                                                                                                                                         |           |                            |             |                           |                |      |       |        |        |        |   |  |  |        |   |  |  |        |  |   |  |        |  |   |  |        |  |  |   |        |  |  |   |
| CPMK-2                                                           | ✓                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                           |           |                            |             |                           |                |      |       |        |        |        |   |  |  |        |   |  |  |        |  |   |  |        |  |   |  |        |  |  |   |        |  |  |   |
| CPMK-3                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | ✓                                                                                                                                                                                                                                                                                                                                                                                                         |           |                            |             |                           |                |      |       |        |        |        |   |  |  |        |   |  |  |        |  |   |  |        |  |   |  |        |  |  |   |        |  |  |   |
| CPMK-4                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | ✓                                                                                                                                                                                                                                                                                                                                                                                                         |           |                            |             |                           |                |      |       |        |        |        |   |  |  |        |   |  |  |        |  |   |  |        |  |   |  |        |  |  |   |        |  |  |   |
| CPMK-5                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                           | ✓         |                            |             |                           |                |      |       |        |        |        |   |  |  |        |   |  |  |        |  |   |  |        |  |   |  |        |  |  |   |        |  |  |   |
| CPMK-6                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                           | ✓         |                            |             |                           |                |      |       |        |        |        |   |  |  |        |   |  |  |        |  |   |  |        |  |   |  |        |  |  |   |        |  |  |   |
| Matrik CPMK pada Kemampuan akhir tiap tahapan belajar (Sub-CPMK) |                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                           |           |                            |             |                           |                |      |       |        |        |        |   |  |  |        |   |  |  |        |  |   |  |        |  |   |  |        |  |  |   |        |  |  |   |
|                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                           |           |                            |             |                           |                |      |       |        |        |        |   |  |  |        |   |  |  |        |  |   |  |        |  |   |  |        |  |  |   |        |  |  |   |

|         |                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                   |   |                                                              |                                                                                  |     |                     |   |                     |    |    |    |    |    |    |  |      |           |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |        |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |        |  |   |   |   |   |  |  |  |  |  |  |  |  |  |  |  |        |  |  |  |  |  |   |   |   |   |   |  |  |  |  |  |  |        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |   |        |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |        |  |  |  |  |  |  |  |  |  |  |  |   |   |   |  |  |
|---------|------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|---|--------------------------------------------------------------|----------------------------------------------------------------------------------|-----|---------------------|---|---------------------|----|----|----|----|----|----|--|------|-----------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|--------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--------|--|---|---|---|---|--|--|--|--|--|--|--|--|--|--|--|--------|--|--|--|--|--|---|---|---|---|---|--|--|--|--|--|--|--------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|---|--------|--|--|--|--|--|--|--|--|--|--|---|--|--|--|--|--|--------|--|--|--|--|--|--|--|--|--|--|--|---|---|---|--|--|
|         |                                                                              | <table><tr><td rowspan="2">CPMK</td><td colspan="16">Minggu Ke</td></tr><tr><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td><td>11</td><td>12</td><td>13</td><td>14</td><td>15</td><td>16</td></tr><tr><td>CPMK-1</td><td>✓</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>CPMK-2</td><td></td><td>✓</td><td>✓</td><td>✓</td><td>✓</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>CPMK-3</td><td></td><td></td><td></td><td></td><td></td><td>✓</td><td>✓</td><td>✓</td><td>✓</td><td>✓</td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>CPMK-4</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>✓</td><td>✓</td></tr><tr><td>CPMK-5</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>✓</td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>CPMK-6</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>✓</td><td>✓</td><td>✓</td><td></td><td></td></tr></table> |                   |   |                                                              |                                                                                  |     |                     |   |                     |    |    |    |    |    |    |  | CPMK | Minggu Ke |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | CPMK-1 | ✓ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | CPMK-2 |  | ✓ | ✓ | ✓ | ✓ |  |  |  |  |  |  |  |  |  |  |  | CPMK-3 |  |  |  |  |  | ✓ | ✓ | ✓ | ✓ | ✓ |  |  |  |  |  |  | CPMK-4 |  |  |  |  |  |  |  |  |  |  |  |  |  |  | ✓ | ✓ | CPMK-5 |  |  |  |  |  |  |  |  |  |  | ✓ |  |  |  |  |  | CPMK-6 |  |  |  |  |  |  |  |  |  |  |  | ✓ | ✓ | ✓ |  |  |
| CPMK    | Minggu Ke                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                   |   |                                                              |                                                                                  |     |                     |   |                     |    |    |    |    |    |    |  |      |           |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |        |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |        |  |   |   |   |   |  |  |  |  |  |  |  |  |  |  |  |        |  |  |  |  |  |   |   |   |   |   |  |  |  |  |  |  |        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |   |        |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |        |  |  |  |  |  |  |  |  |  |  |  |   |   |   |  |  |
|         | 1                                                                            | 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 3                 | 4 | 5                                                            | 6                                                                                | 7   | 8                   | 9 | 10                  | 11 | 12 | 13 | 14 | 15 | 16 |  |      |           |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |        |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |        |  |   |   |   |   |  |  |  |  |  |  |  |  |  |  |  |        |  |  |  |  |  |   |   |   |   |   |  |  |  |  |  |  |        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |   |        |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |        |  |  |  |  |  |  |  |  |  |  |  |   |   |   |  |  |
| CPMK-1  | ✓                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                   |   |                                                              |                                                                                  |     |                     |   |                     |    |    |    |    |    |    |  |      |           |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |        |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |        |  |   |   |   |   |  |  |  |  |  |  |  |  |  |  |  |        |  |  |  |  |  |   |   |   |   |   |  |  |  |  |  |  |        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |   |        |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |        |  |  |  |  |  |  |  |  |  |  |  |   |   |   |  |  |
| CPMK-2  |                                                                              | ✓                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | ✓                 | ✓ | ✓                                                            |                                                                                  |     |                     |   |                     |    |    |    |    |    |    |  |      |           |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |        |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |        |  |   |   |   |   |  |  |  |  |  |  |  |  |  |  |  |        |  |  |  |  |  |   |   |   |   |   |  |  |  |  |  |  |        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |   |        |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |        |  |  |  |  |  |  |  |  |  |  |  |   |   |   |  |  |
| CPMK-3  |                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                   |   |                                                              | ✓                                                                                | ✓   | ✓                   | ✓ | ✓                   |    |    |    |    |    |    |  |      |           |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |        |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |        |  |   |   |   |   |  |  |  |  |  |  |  |  |  |  |  |        |  |  |  |  |  |   |   |   |   |   |  |  |  |  |  |  |        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |   |        |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |        |  |  |  |  |  |  |  |  |  |  |  |   |   |   |  |  |
| CPMK-4  |                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                   |   |                                                              |                                                                                  |     |                     |   |                     |    |    |    |    | ✓  | ✓  |  |      |           |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |        |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |        |  |   |   |   |   |  |  |  |  |  |  |  |  |  |  |  |        |  |  |  |  |  |   |   |   |   |   |  |  |  |  |  |  |        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |   |        |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |        |  |  |  |  |  |  |  |  |  |  |  |   |   |   |  |  |
| CPMK-5  |                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                   |   |                                                              |                                                                                  |     |                     |   |                     | ✓  |    |    |    |    |    |  |      |           |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |        |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |        |  |   |   |   |   |  |  |  |  |  |  |  |  |  |  |  |        |  |  |  |  |  |   |   |   |   |   |  |  |  |  |  |  |        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |   |        |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |        |  |  |  |  |  |  |  |  |  |  |  |   |   |   |  |  |
| CPMK-6  |                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                   |   |                                                              |                                                                                  |     |                     |   |                     |    | ✓  | ✓  | ✓  |    |    |  |      |           |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |        |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |        |  |   |   |   |   |  |  |  |  |  |  |  |  |  |  |  |        |  |  |  |  |  |   |   |   |   |   |  |  |  |  |  |  |        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |   |        |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |        |  |  |  |  |  |  |  |  |  |  |  |   |   |   |  |  |
| Pustaka |                                                                              | Utama :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                   |   |                                                              |                                                                                  |     |                     |   |                     |    |    |    |    |    |    |  |      |           |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |        |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |        |  |   |   |   |   |  |  |  |  |  |  |  |  |  |  |  |        |  |  |  |  |  |   |   |   |   |   |  |  |  |  |  |  |        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |   |        |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |        |  |  |  |  |  |  |  |  |  |  |  |   |   |   |  |  |
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|         |                                                                              | Pendukung :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                   |   |                                                              |                                                                                  |     |                     |   |                     |    |    |    |    |    |    |  |      |           |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |        |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |        |  |   |   |   |   |  |  |  |  |  |  |  |  |  |  |  |        |  |  |  |  |  |   |   |   |   |   |  |  |  |  |  |  |        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |   |        |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |        |  |  |  |  |  |  |  |  |  |  |  |   |   |   |  |  |
|         |                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                   |   |                                                              |                                                                                  |     |                     |   |                     |    |    |    |    |    |    |  |      |           |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |        |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |        |  |   |   |   |   |  |  |  |  |  |  |  |  |  |  |  |        |  |  |  |  |  |   |   |   |   |   |  |  |  |  |  |  |        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |   |        |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |        |  |  |  |  |  |  |  |  |  |  |  |   |   |   |  |  |
| Mg Ke-  | Kemampuan akhir tiap tahapan belajar (Sub-CPMK)                              | Penilaian                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                   |   |                                                              | Bentuk Pembelajaran, Metode Pembelajaran, Penugasan Mahasiswa, [ Estimasi Waktu] |     | Materi Pembelajaran |   | Bobot Penilaian (%) |    |    |    |    |    |    |  |      |           |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |        |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |        |  |   |   |   |   |  |  |  |  |  |  |  |  |  |  |  |        |  |  |  |  |  |   |   |   |   |   |  |  |  |  |  |  |        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |   |        |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |        |  |  |  |  |  |  |  |  |  |  |  |   |   |   |  |  |
|         |                                                                              | Indikator                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Kriteria & Bentuk |   | Luring (offline)                                             | Daring (online)                                                                  |     |                     |   |                     |    |    |    |    |    |    |  |      |           |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |        |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |        |  |   |   |   |   |  |  |  |  |  |  |  |  |  |  |  |        |  |  |  |  |  |   |   |   |   |   |  |  |  |  |  |  |        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |   |        |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |        |  |  |  |  |  |  |  |  |  |  |  |   |   |   |  |  |
| (1)     | (2)                                                                          | (3)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | (4)               |   | (5)                                                          | (6)                                                                              | (7) | (8)                 |   |                     |    |    |    |    |    |    |  |      |           |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |        |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |        |  |   |   |   |   |  |  |  |  |  |  |  |  |  |  |  |        |  |  |  |  |  |   |   |   |   |   |  |  |  |  |  |  |        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |   |        |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |        |  |  |  |  |  |  |  |  |  |  |  |   |   |   |  |  |
| 1       | Mahasiswa memahami konsep logika beserta implementasinya                     | 1. Mampu menjelaskan konsep logika proposisi<br>2. Mampu menjelaskan operator logika<br>3. Mampu menjelaskan tabel kebenaran<br>4. Mampu membedakan pernyataan kondisional<br>5. Mampu mengimplementasikan logika proposisi dalam masalah sehari-hari<br>6. Mampu mengimplementasikan operator logika pada rangkaian logika digital.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Non-Tes           |   | Pembelajaran Kolaboratif (Ceramah, diskusi, dan tanya jawab) |                                                                                  |     | 2%                  |   |                     |    |    |    |    |    |    |  |      |           |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |        |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |        |  |   |   |   |   |  |  |  |  |  |  |  |  |  |  |  |        |  |  |  |  |  |   |   |   |   |   |  |  |  |  |  |  |        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |   |        |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |        |  |  |  |  |  |  |  |  |  |  |  |   |   |   |  |  |
| 2       | Mahasiswa memahami implementasi ekuivalensi proposisi, predikat, dan kuantor | 1. Mampu menjelaskan konsep logika predikat<br>2. Mampu menjelaskan konsep kuantor Universal & Eksistensial<br>3. Mampu menjelaskan negasi pada formula logika predikat<br>4. Mampu menjelaskan translasi pada formula logika predikat                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Non-Tes           |   | Pembelajaran Kolaboratif (Ceramah, diskusi, dan tanya jawab) |                                                                                  |     | 3%                  |   |                     |    |    |    |    |    |    |  |      |           |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |        |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |        |  |   |   |   |   |  |  |  |  |  |  |  |  |  |  |  |        |  |  |  |  |  |   |   |   |   |   |  |  |  |  |  |  |        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |   |        |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |        |  |  |  |  |  |  |  |  |  |  |  |   |   |   |  |  |
| 3       | Mahasiswa memahami konsep kuantor bersarang                                  | 1. Mampu menjelaskan konsep dari Kuantor bersarang (nested)<br>2. Mampu menjelaskan translasi pada formula logika predikat bersarang                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Tugas Individu    |   | Pembelajaran Kolaboratif (Ceramah, diskusi, dan tanya jawab) |                                                                                  |     | 3%                  |   |                     |    |    |    |    |    |    |  |      |           |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |        |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |        |  |   |   |   |   |  |  |  |  |  |  |  |  |  |  |  |        |  |  |  |  |  |   |   |   |   |   |  |  |  |  |  |  |        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |   |        |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |        |  |  |  |  |  |  |  |  |  |  |  |   |   |   |  |  |
| 4       | Mahasiswa memahami konsep aturan inferensi                                   | 1. Mampu menjelaskan konsep argumen pada logika proposisi<br>2. Mampu menjelaskan konsep aturan inferensi<br>3. Mampu menjelaskan konsep Modus Ponens, Modus Tolens, Silogisme Hipotetik, Silogisme Disjungtif, Penambahan, Simplifikasi, Konjungsi, Resolusi, Fallacy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Non-Tes           |   | Pembelajaran Kolaboratif (Ceramah, diskusi, dan tanya jawab) |                                                                                  |     | 3%                  |   |                     |    |    |    |    |    |    |  |      |           |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |        |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |        |  |   |   |   |   |  |  |  |  |  |  |  |  |  |  |  |        |  |  |  |  |  |   |   |   |   |   |  |  |  |  |  |  |        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |   |        |  |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |        |  |  |  |  |  |  |  |  |  |  |  |   |   |   |  |  |

|    |                                                                                                                              |                                                                                                                                                                                                                                                                                                                              |             |                                                              |  |  |     |
|----|------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|--------------------------------------------------------------|--|--|-----|
| 5  | Mahasiswa memahami konsep aturan inferensi                                                                                   | <ol style="list-style-type: none"> <li>1. Mampu menjelaskan konsep logika dan implementasinya</li> <li>2. Mampu menjelaskan dan mengimplementasikan konsep ekuivalensi, predikat dan kuantor</li> </ol>                                                                                                                      | Kuis        | Pembelajaran Kolaboratif (Ceramah, diskusi, dan tanya jawab) |  |  | 15% |
| 6  | Mampu memahami konsep pembuktian langsung                                                                                    | Mampu menjelaskan konsep Lemma, Teorema, Corollary, Conjecture                                                                                                                                                                                                                                                               | Non-Tes     | Pembelajaran Kolaboratif (Ceramah, diskusi, dan tanya jawab) |  |  | 3%  |
| 7  | Mampu menjelaskan konsep Teorema Pembuktian Trivial, Pembuktian Vacuous, Pembuktian Langsung, Pembuktian dengan Kontraposisi | <ol style="list-style-type: none"> <li>1. Mampu memahami konsep Teorema Pembuktian Trivial</li> <li>2. Mampu menjelaskan konsep Pembuktian Vacuous</li> <li>3. Mampu menjelaskan konsep Pembuktian Langsung</li> <li>4. Mampu menjelaskan konsep Pembuktian dengan Kontraposisi</li> </ol>                                   | Non-Tes     | Pembelajaran Kolaboratif (Ceramah, diskusi, dan tanya jawab) |  |  | 3%  |
| 8  | Ujian Tengah Semester (UTS)                                                                                                  | Ujian Tes Tulis                                                                                                                                                                                                                                                                                                              | Ujian Tulis | Ujian Tulis Offline                                          |  |  | 15% |
| 9  | Pembuktian dengan Kontradiksi, Pembuktian Bikondisional, Pembuktian dengan kasus Counterexample                              | <ol style="list-style-type: none"> <li>1. Mampu menjelaskan konsep pembuktian dengan kontradiksi</li> <li>2. Mampu menjelaskan konsep pembuktian dengan bikondisional</li> <li>3. Mampu menjelaskan konsep pembuktian dengan kasus counter example</li> </ol>                                                                | Non-Tes     | Pembelajaran Kolaboratif (Ceramah, diskusi, dan tanya jawab) |  |  | 3%  |
| 10 | Mahasiswa memahami konsep barisan dan deret, prinsip induksi matematika, konsep rekursi                                      | <ol style="list-style-type: none"> <li>1. Mampu menjelaskan konsep deret</li> <li>2. Mampu menjelaskan prinsip induksi matematika</li> <li>3. Mampu menjelaskan konsep pembuktian deduktif</li> <li>4. Mampu menjelaskan konsep rekursi</li> </ol>                                                                           | Tugas       | Pembelajaran Kolaboratif (Ceramah, diskusi, dan tanya jawab) |  |  | 3%  |
| 11 | Mahasiswa memahami konsep himpunan dan fungsi                                                                                | <ol style="list-style-type: none"> <li>1. Mampu menjelaskan konsep himpunan</li> <li>2. Mampu menjelaskan konsep fungsi</li> </ol>                                                                                                                                                                                           | Non-Tes     | Pembelajaran Kolaboratif (Ceramah, diskusi, dan tanya jawab) |  |  | 3%  |
| 12 | Mahasiswa memahami konsep counting                                                                                           | <ol style="list-style-type: none"> <li>1. Mampu menjelaskan konsep aturan penjumlahan</li> <li>2. Mampu menjelaskan konsep aturan perkalian</li> <li>3. Mampu menjelaskan konsep permutasi</li> <li>4. Mampu menjelaskan konsep kombinasi</li> </ol>                                                                         | Partisipasi | Pembelajaran Kolaboratif (Ceramah, diskusi, dan tanya jawab) |  |  | 3%  |
| 13 | Mahasiswa memahami konsep Pigeonhole, Binomial dan prinsip inklusi-eksklusi                                                  | <ol style="list-style-type: none"> <li>1. Mampu menjelaskan konsep prinsip Pigeonhole</li> <li>2. Mampu menjelaskan konsep binomial</li> <li>3. Mampu menjelaskan konsep generalisasi permutasi</li> <li>4. Mampu menjelaskan konsep generalisasi kombinasi</li> <li>5. Mampu menjelaskan konsep inklusi-eksklusi</li> </ol> | Partisipasi | Pembelajaran Kolaboratif (Ceramah, diskusi, dan tanya jawab) |  |  | 3%  |
| 14 | Mahasiswa memahami konsep prinsip inklusi-eksklusi                                                                           | <ol style="list-style-type: none"> <li>1. Mampu menjelaskan konsep dan prinsip inklusi-eksklusi</li> <li>2. Mampu menjelaskan aplikasi dari prinsip inklusi-eksklusi</li> </ol>                                                                                                                                              | Ujian Tulis | Pembelajaran Kolaboratif (Ceramah, diskusi, dan tanya jawab) |  |  | 15% |

|    |                                                                          |                                                                                                                                                             |                      |                                                              |  |  |     |
|----|--------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|--------------------------------------------------------------|--|--|-----|
| 15 | Mahasiswa mampu menjelaskan konsep graf dan tree beserta implementasinya | 1. Mahasiswa mampu menjelaskan konsep graf<br>2.<br>3. Mahasiswa mampu menjelaskan model dan jenis-jenis graf<br>4. Mahasiswa mampu menjelaskan konsep tree | Non-Tes              | Pembelajaran Kolaboratif (Ceramah, diskusi, dan tanya jawab) |  |  | 3%  |
| 16 | Ujian Akhir Semester (UAS)                                               | Tes Tulis                                                                                                                                                   | Ujian Akhir Semester | Ujian Tulis                                                  |  |  | 20% |

#### SDGS (Sustainable Development Goals)



#### Catatan

1. **Capaian Pembelajaran Lulusan Program Studi (CPL-Prodi)** adalah rumusan kemampuan yang harus dimiliki oleh lulusan program studi yang mencakup sikap, penguasaan pengetahuan, keterampilan umum, dan keterampilan khusus sesuai dengan jenjang kualifikasi, yang diperoleh melalui proses pembelajaran.
2. **CPL-Prodi yang dibebankan pada Mata Kuliah** adalah bagian dari CPL-Prodi yang dipilih dan relevan untuk dikembangkan melalui suatu mata kuliah, sebagai dasar perumusan capaian pembelajaran mata kuliah.
3. **Capaian Pembelajaran Mata Kuliah (CPMK)** adalah kemampuan yang dirumuskan secara spesifik dan diturunkan dari CPL-Prodi yang dibebankan pada mata kuliah, serta menggambarkan kompetensi yang harus dicapai mahasiswa setelah menyelesaikan mata kuliah.
4. **Sub-CPMK** adalah kemampuan akhir yang direncanakan pada setiap tahap pembelajaran, sebagai penjabaran lebih rinci dari CPMK, bersifat terukur dan dapat diamati sesuai dengan materi pembelajaran.
5. **Indikator Penilaian** adalah pernyataan spesifik dan terukur yang digunakan untuk menilai ketercapaian Sub-CPMK, baik dari proses maupun hasil belajar mahasiswa, yang didukung dengan bukti penilaian.
6. **Kriteria Penilaian** adalah tolok ukur yang digunakan untuk menentukan tingkat ketercapaian hasil belajar mahasiswa berdasarkan indikator penilaian, guna menjamin penilaian yang objektif, konsisten, dan adil. Kriteria penilaian dapat bersifat kuantitatif dan/atau kualitatif.
7. **Bentuk Penilaian** meliputi penilaian tes dan non-tes sesuai dengan karakteristik capaian pembelajaran.
8. **Bentuk Pembelajaran** meliputi kuliah, responsi, tutorial, seminar atau bentuk lain yang setara, praktikum, praktik studio, praktik bengkel, praktik lapangan, penelitian, dan pengabdian kepada masyarakat.
9. **Metode Pembelajaran** merupakan cara penyampaian pembelajaran yang digunakan untuk mencapai capaian pembelajaran, antara lain Small Group Discussion, Project Based Learning, Case Based Learning, Collaborative Learning, Discovery Learning, Self-Directed Learning, serta metode lain yang relevan.
10. **Materi Pembelajaran** adalah bahan kajian yang disusun secara sistematis dalam bentuk pokok dan sub-pokok bahasan untuk mendukung pencapaian Sub-CPMK.
11. **Bobot Penilaian** adalah persentase kontribusi setiap komponen penilaian terhadap nilai akhir mata kuliah, yang ditetapkan secara proporsional sesuai tingkat kompleksitas dan ketercapaian Sub-CPMK, dengan total keseluruhan sebesar 100%.
12. TM = Tatap Muka, PT = Penugasan Terstruktur, BM = Belajar Mandiri.