



Universitas Negeri Surabaya
Fakultas Matematika dan Ilmu Pengetahuan Alam
Program Studi S1 Matematika

Kode Dokumen

RENCANA PEMBELAJARAN SEMESTER

MATA KULIAH (MK)	KODE	Rumpun MK	BOBOT (sks)	SEMESTER	Tgl Penyusunan																																																																																			
Berpikir Kritis dan Kreatif	1000020158		T=1 P=1 ECTS=3.18	7	24 Februari 2026																																																																																			
OTORISASI	Pengembang RPS		Koordinator RMK		Koordinator Program Studi																																																																																			
	TIM MBKM		TIM MBKM		RADEN SULAIMAN																																																																																			
Model Pembelajaran	Project Based Learning																																																																																							
Capaian Pembelajaran (CP)	CPL-PRODI yang dibebankan pada MK																																																																																							
	CPL-2	Menunjukkan karakter tangguh, kolaboratif, adaptif, inovatif, inklusif, belajar sepanjang hayat, dan berjiwa kewirausahaan																																																																																						
	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																																																																																						
	Capaian Pembelajaran Mata Kuliah (CPMK)																																																																																							
	CPMK - 1	Analyze complex problems using critical thinking skills to develop effectively solution (C4)																																																																																						
	CPMK - 2	Apply creative thinking techniques to generate innovative ideas and approaches in various contexts (C3)																																																																																						
	CPMK - 3	Evaluate the validity and reliability of information from various sources to support decision making process (C5)																																																																																						
	Matrik CPL - CPMK																																																																																							
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Deskripsi Singkat MK	<p>The Creative and Critical Thinking course is designed to develop students' ability to think creatively and critically. In this course, students are taught various techniques and strategies to generate innovative ideas and evaluate arguments objectively. Learning involves group discussions, case studies, and challenging problemsolving exercises, which allow students to practice and apply thinking skills in various contexts. In addition, students are also introduced to various theories and concepts that underlie the creative and critical thinking process, which are useful for improving analytical and decision-making skills. In this course, students are encouraged to explore different ways of thinking, identify assumptions, and question commonly accepted viewpoints. Through projects and presentations, students can demonstrate their ability to apply critical thinking in real situations, while developing confidence in conveying their ideas. With mastery of these skills, students are expected to be able to adapt quickly in a dynamic and complex environment, and become more independent and innovative thinkers in facing challenges in the professional world.</p>																																																																																							
Pustaka	Utama :																																																																																							

1. Baer, J. (2021). Creativity and divergent thinking: A task-specific approach. Routledge.
2. Copley, D. H. (2021). Creativity in engineering: Novel solutions to complex problems. Academic Press.
3. Runco, M. A. (2020). Theories of creativity. Sage Publications.
4. Nickerson, R. S. (2021). Enhancing creativity: A guide to cognitive approaches. Taylor & Francis.
5. Robinson, K. (2022). Out of our minds: The power of being creative. Capstone.
6. Beghetto, R. A. (2021). Teaching for creativity: Ideas in action. Routledge.
7. Kaufman, J. C. (2020). Creativity 101 (2nd ed.). Springer Publishing.
8. Glăveanu, V. P. (2020). The possible: A sociocultural theory of creativity. Oxford University Press.
9. Sternberg, R. J., & Halpern, D. F. (2022). Critical thinking in psychology and everyday life. Cambridge University Press.
10. Levitin, D. J. (2020). A field guide to lies: Critical thinking in the information age. Penguin Books.
11. Paul, R., & Elder, L. (2020). Critical Thinking: Tools for Taking Charge of Your Learning and Your Life (3rd ed.). Pearson.
12. Facione, P. A. (2020). Critical Thinking: A Statement of Expert Consensus for Purposes of Educational Assessment and Instruction. The Critical Thinking Community.
13. Gelder, T. (2021). Creative and Critical Thinking: Skills for the 21st Century. Wiley.
14. Ennis, R. H. (2021). Critical Thinking: A Streamlined Introduction. Cambridge University Press.
15. Lipman, M. (2020). Thinking in Education (2nd ed.). Cambridge University Press.
16. Sternberg, R. J. (2020). Thinking Styles (2nd ed.). Cambridge University Press.
17. Paul, R., & Elder, L. (2021). The Miniature Guide to Critical Thinking Concepts and Tools. Foundation for Critical Thinking.
18. Csikszentmihalyi, M. (2020). Creativity: The Psychology of Discovery and Invention (Revised ed.). HarperCollins.
19. Cropley, A. (2022). Creativity in Education & Learning: A Guide for Teachers and Educators. Routledge.
20. Runco, M. A., & Acar, S. (2021). Divergent Thinking as an Indicator of Creativity. Oxford University Press.
21. Norris, S. P., & Ennis, R. H. (2020). Evaluating Critical Thinking. Teaching Philosophy, 43(3), 1-15.
22. Johnson, D. W., & Johnson, F. P. (2020). Joining Together: Group Theory and Group Skills (13th ed.). Pearson.
23. De Bono, E. (2021). Six Thinking Hats (Rev. ed.). Back Bay Books.
24. Bailin, S., & Siegel, H. (2021). Critical Thinking and Education: A Scholarly Review. Cambridge University Press.
25. Root-Bernstein, R., & Root-Bernstein, M. (2022). Sparks of Genius: The 13 Thinking Tools of the World's Most Creative People (2nd ed.). Houghton Mifflin Harcourt.

Pendukung :

1. Scholar
2. SINTA

Dosen Pengampu

Mg Ke-	Kemampuan akhir tiap tahapan belajar (Sub-CPMK)	Penilaian		Bantuan Pembelajaran, Metode Pembelajaran, Penugasan Mahasiswa, [Estimasi Waktu]		Materi Pembelajaran [Pustaka]	Bobot Penilaian (%)
		Indikator	Kriteria & Bentuk	Luring (offline)	Daring (online)		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1	Students understand the importance of thinking critically and creatively in everyday life and academic settings.	Participation, ability to connect concepts to real life	<p>Kriteria: Engagement, relevance of input</p> <p>Bentuk Penilaian : Aktifitas Partisipasif, Praktik / Unjuk Kerja</p>	Interactive lecture, group discussion 2 x 50	Interactive lecture, group discussion 2 x 50	<p>Materi: Introduction to Critical and Creative Thinking</p> <p>Pustaka: <i>Ennis, R. H. (2021). Critical Thinking: A Streamlined Introduction. Cambridge University Press.</i></p>	3%
2	Students understand the importance of thinking critically and creatively in everyday life and academic settings.	Participation, ability to connect concepts to real life	<p>Kriteria: Engagement, relevance of input</p> <p>Bentuk Penilaian : Aktifitas Partisipasif, Praktik / Unjuk Kerja</p>	Interactive lecture, group discussion 2 x 50	Interactive lecture, group discussion 2 x 50	<p>Materi: Introduction to Critical and Creative Thinking</p> <p>Pustaka: <i>Ennis, R. H. (2021). Critical Thinking: A Streamlined Introduction. Cambridge University Press.</i></p>	3%

3	Students understand the importance of thinking critically and creatively in everyday life and academic settings.	Participation, ability to connect concepts to real life	<p>Kriteria: Engagement, relevance of input</p> <p>Bentuk Penilaian : Aktifitas Partisipasif, Praktik / Unjuk Kerja</p>	Interactive lecture, group discussion 2 x 50	Interactive lecture, group discussion 2 x 50	<p>Materi: Introduction to Critical and Creative Thinking</p> <p>Pustaka: <i>Ennis, R. H. (2021). Critical Thinking: A Streamlined Introduction. Cambridge University Press.</i></p>	3%
4	Students can identify characteristics of critical and creative thinkers.	Ability to distinguish key traits and give examples	<p>Kriteria: Accuracy, clarity, insight</p> <p>Bentuk Penilaian : Aktifitas Partisipasif, Praktik / Unjuk Kerja</p>	discussion 2 x 50	discussion 2 x 50	<p>Materi: Traits of Critical and Creative Thinkers</p> <p>Pustaka: <i>Baer, J. (2021). Creativity and divergent thinking: A task-specific approach. Routledge.</i></p>	3%
5	Students can identify characteristics of critical and creative thinkers.	Ability to distinguish key traits and give examples	<p>Kriteria: Accuracy, clarity, insight</p> <p>Bentuk Penilaian : Aktifitas Partisipasif, Praktik / Unjuk Kerja</p>	discussion 2 x 50	discussion 2 x 50	<p>Materi: Traits of Critical and Creative Thinkers</p> <p>Pustaka: <i>Baer, J. (2021). Creativity and divergent thinking: A task-specific approach. Routledge.</i></p>	3%
6	Understand the thinking process as a skill that can be developed.	Ability to identify steps of the thinking process	<p>Kriteria: Logical sequence, clarity</p> <p>Bentuk Penilaian : Aktifitas Partisipasif, Praktik / Unjuk Kerja</p>	discussion 2 x 50	discussion 2 x 50	<p>Materi: Thinking as a Learnable Process</p> <p>Pustaka: <i>Sternberg, R. J. (2020). Thinking Styles (2nd ed.). Cambridge University Press.</i></p>	3%
7	Understand the thinking process as a skill that can be developed.	Ability to identify steps of the thinking process	<p>Kriteria: Logical sequence, clarity</p> <p>Bentuk Penilaian : Aktifitas Partisipasif, Praktik / Unjuk Kerja</p>	discussion 2 x 50	discussion 2 x 50	<p>Materi: Thinking as a Learnable Process</p> <p>Pustaka: <i>Sternberg, R. J. (2020). Thinking Styles (2nd ed.). Cambridge University Press.</i></p>	4%

8	UTS	UTS	Kriteria: UTS Bentuk Penilaian : Aktifitas Partisipasif, Praktik / Unjuk Kerja	UTS 2 x 50	UTS 2 x 50	Materi: All Materials Pustaka: <i>Sternberg, R. J., & Halpern, D. F. (2022). Critical thinking in psychology and everyday life. Cambridge University Press.</i>	20%
9	Analyze arguments and distinguish between strong and weak reasoning.	Identification of argument structure	Kriteria: Accuracy, reasoning clarity Bentuk Penilaian : Aktifitas Partisipasif, Praktik / Unjuk Kerja	Critical analysis, small group work 2 x 50	Critical analysis, small group work 2 x 50	Materi: Evaluating Arguments Pustaka: <i>Norris, S. P., & Ennis, R. H. (2020). Evaluating Critical Thinking. Teaching Philosophy, 43(3), 1-15.</i>	4%
10	Apply questioning techniques to explore issues from multiple perspectives.	Quality of questions posed	Kriteria: Depth, open-mindedness Bentuk Penilaian : Aktifitas Partisipasif, Praktik / Unjuk Kerja	questioning, discussion 2 x 50	questioning, discussion 2 x 50	Materi: Asking Good Questions Pustaka: <i>Paul, R., & Elder, L. (2020). Critical Thinking: Tools for Taking Charge of Your Learning and Your Life (3rd ed.). Pearson.</i>	4%
11	Apply questioning techniques to explore issues from multiple perspectives.	Quality of questions posed	Kriteria: Depth, open-mindedness Bentuk Penilaian : Aktifitas Partisipasif, Praktik / Unjuk Kerja	questioning, discussion 2 x 50	questioning, discussion 2 x 50	Materi: Asking Good Questions Pustaka: <i>Paul, R., & Elder, L. (2020). Critical Thinking: Tools for Taking Charge of Your Learning and Your Life (3rd ed.). Pearson.</i>	4%
12	Practice creative problem solving in structured settings.	Ability to generate and compare solutions	Kriteria: Ability to generate and compare solutions Bentuk Penilaian : Aktifitas Partisipasif, Praktik / Unjuk Kerja	Case simulation, problem-solving games 2 x 50	Case simulation, problem-solving games 2 x 50	Materi: Creative Problem Solving Pustaka: <i>Levitin, D. J. (2020). A field guide to lies: Critical thinking in the information age. Penguin Books.</i>	4%

13	Practice creative problem solving in structured settings.	Ability to generate and compare solutions	Kriteria: Ability to generate and compare solutions Bentuk Penilaian : Aktifitas Partisipasif, Praktik / Unjuk Kerja	Case simulation, problem-solving games 2 x 50	Case simulation, problem-solving games 2 x 50	Materi: Creative Problem Solving Pustaka: <i>Levitin, D. J. (2020). A field guide to lies: Critical thinking in the information age. Penguin Books.</i>	4%
14	Explore logical fallacies and how to avoid them.	explore logical fallacies and how to avoid them.	Kriteria: explore logical fallacies and how to avoid them. Bentuk Penilaian : Aktifitas Partisipasif, Praktik / Unjuk Kerja	Discussion 2 x 50	Discussion 2 x 50	Materi: Logical Fallacies in Daily Thinking Pustaka: <i>Sternberg, R. J., & Halpern, D. F. (2022). Critical thinking in psychology and everyday life. Cambridge University Press.</i>	4%
15	Explore logical fallacies and how to avoid them.	explore logical fallacies and how to avoid them.	Kriteria: explore logical fallacies and how to avoid them. Bentuk Penilaian : Aktifitas Partisipasif, Praktik / Unjuk Kerja	Discussion 2 x 50	Discussion 2 x 50	Materi: Logical Fallacies in Daily Thinking Pustaka: <i>Sternberg, R. J., & Halpern, D. F. (2022). Critical thinking in psychology and everyday life. Cambridge University Press.</i>	4%
16	UAS	UAS	Kriteria: UAS Bentuk Penilaian : Aktifitas Partisipasif, Praktik / Unjuk Kerja	UAS 2 x 50	UAS 2 x 50	Materi: All Materials Pustaka: <i>Gelder, T. (2021). Creative and Critical Thinking: Skills for the 21st Century. Wiley.</i>	30%

Rekap Persentase Evaluasi : Project Based Learning

No	Evaluasi	Persentase
1.	Aktifitas Partisipasif	50%
2.	Praktik / Unjuk Kerja	50%
		100%

Catatan

1. **Capaian Pembelajaran Lulusan Prodi (CPL - Prodi)** adalah kemampuan yang dimiliki oleh setiap lulusan prodi yang merupakan internalisasi dari sikap, penguasaan pengetahuan dan ketrampilan sesuai dengan jenjang prodinya yang diperoleh melalui proses pembelajaran.
2. **CPL yang dibebankan pada mata kuliah** adalah beberapa capaian pembelajaran lulusan program studi (CPL-Prodi) yang digunakan untuk pembentukan/pengembangan sebuah mata kuliah yang terdiri dari aspek sikap, ketrampilan

- umum, ketrampilan khusus dan pengetahuan.
3. **CP Mata kuliah (CPMK)** adalah kemampuan yang dijabarkan secara spesifik dari CPL yang dibebankan pada mata kuliah, dan bersifat spesifik terhadap bahan kajian atau materi pembelajaran mata kuliah tersebut.
 4. **Sub-CPMK Mata kuliah (Sub-CPMK)** adalah kemampuan yang dijabarkan secara spesifik dari CPMK yang dapat diukur atau diamati dan merupakan kemampuan akhir yang direncanakan pada tiap tahap pembelajaran, dan bersifat spesifik terhadap materi pembelajaran mata kuliah tersebut.
 5. **Indikator penilaian** kemampuan dalam proses maupun hasil belajar mahasiswa adalah pernyataan spesifik dan terukur yang mengidentifikasi kemampuan atau kinerja hasil belajar mahasiswa yang disertai bukti-bukti.
 6. **Kreteria Penilaian** adalah patokan yang digunakan sebagai ukuran atau tolok ukur ketercapaian pembelajaran dalam penilaian berdasarkan indikator-indikator yang telah ditetapkan. Kreteria penilaian merupakan pedoman bagi penilai agar penilaian konsisten dan tidak bias. Kreteria dapat berupa kuantitatif ataupun kualitatif.
 7. **Bentuk penilaian:** tes dan non-tes.
 8. **Bentuk pembelajaran:** Kuliah, Responsi, Tutorial, Seminar atau yang setara, Praktikum, Praktik Studio, Praktik Bengkel, Praktik Lapangan, Penelitian, Pengabdian Kepada Masyarakat dan/atau bentuk pembelajaran lain yang setara.
 9. **Metode Pembelajaran:** Small Group Discussion, Role-Play & Simulation, Discovery Learning, Self-Directed Learning, Cooperative Learning, Collaborative Learning, Contextual Learning, Project Based Learning, dan metode lainnya yg setara.
 10. **Materi Pembelajaran** adalah rincian atau uraian dari bahan kajian yg dapat disajikan dalam bentuk beberapa pokok dan sub-pokok bahasan.
 11. **Bobot penilaian** adalah prosentasi penilaian terhadap setiap pencapaian sub-CPMK yang besarnya proposional dengan tingkat kesulitan pencapaian sub-CPMK tsb., dan totalnya 100%.
 12. TM=Tatap Muka, PT=Penugasan terstruktur, BM=Belajar mandiri.