Dr. Matthias Carl Laupichler ML_Advanced_2025_03 () Erfasste Fragebögen = 3



	Auswertungsteil der geschl	lossenen Fragen		
Legende Fragetext	Relative Häufigkeiten der Antworten StdAbw. M Linker Pol	Aittelwert Median % 50% 0% 25% 2 3 4 5 Histogramm	Rechter Pol	n=Anzahl mw=Mittelwert md=Median s=StdAbw. E.=Enthaltung
1. Questions about the	e course (1)			
^{1.1)} The difficulty of the lea	ture part of the course (i.e., theoretical input by	(instructors) is		
	Ear to low		0%	n=3
			0%	
	Just right		66 7%	
	A little too high		0%	
	Far too high		0%	
^{1.2)} The difficulty of the exe	ercise part of the course (e.g. programming exe	ercises in python) is		·
	Far too low		0%	n=3
	A little too low		0%	
	Just right		33,3%	
	A little too high		66,7%	
	Far too high		0%	
^{1.3)} The pace of the course	e is			
	Far too slow		0%	n=3
	A little too slow		33,3%	
	Just right		33,3%	
	A little too fast		33,3%	
	Way too fast		0%	
^{1.4)} Overall, I give the cou	rse the following school grade:			
	"Ungenügend" / Unsatisfactory (6)		0%	n=3
	"Mangelhaft" / Deficient (5)		0%	
	"Ausreichend" / Sufficient (4)		0%	
	"Befriedigend" / Satisfactory (3)		0%	
	"Gut" / Good (2)		66,7%	
	"Sehr gut" / Very good (1)		33,3%	

1.5)	Overall, I give the lecture part of the course (i.e., theoretical input by	r instructors) the following school grade	:	
	"Ungenügend" / Unsatisfactory (6)	0%	n=3
	"Mangelhaft" / Deficient (5		0%	
	"Ausreichend" / Sufficient (4)	33,3%	
	"Befriedigend" / Satisfactory (3		0%	
	"Gut" / Good (2		33,3%	
	"Sehr gut" / Very good (1		33,3%	
1.6)	Overall, I give the exercise part of the course (e.g., programming ex	ercises in python) the following school	grade:	
	"Ungenügend" / Unsatisfactory (6		0%	n=3
	"Mangelhaft" / Deficient (5		0%	
	"Ausreichend" / Sufficient (4)	0%	
	"Befriedigend" / Satisfactory (3		33,3%	
	"Gut" / Good (2		33,3%	
	"Sehr gut" / Very good (1)	33,3%	
1.7)	The course is useful for conducting my research Do not agree at a projects.		Fully agree	n=3 mw=4 md=4 s=1
— — 1.8)	I can use what I have learned independently in my Do not agree at a research projects.		Fully agree	n=3 mw=3,3 md=4 s=1,2
1.9)	The amount of examples in the course was Do not agree at a appropriate.		Fully agree	n=3 mw=3,3 md=4 s=2,1
2.	Evaluation of Learning Objectives			
2.1)	I can explain algorithmic differentiation. Very low My skills in this area <i>before</i> starting the course were	N 0% 66,7% 0% 33,3% 0%	Very high	n=3 mw=2,7 md=2 s=1,2
2.2)	I can explain algorithmic differentiation. Very low My skills in this area are <i>now</i>	N 0% 0% 0% 33,3% 66,7% 1 2 3 4 5	— — — — — — — — — — — — — — — — — — —	n=3 mw=4,7 md=5 s=0,6
2.3)	I can implement simple algorithmic Very low differentiation programs in Python. My skills in this area <i>before</i> starting the course were	N 66,7% 33,3% 0% 0% 1 2 3 4 5	Very high	n=3 mw=2,3 md=2 s=0,6
2.4)	I can implement simple algorithmic Very low differentiation programs in Python. My skills in this area are <i>now</i>	N 0% 0% 0% 100% 1 2 3 4 5	Very high	n=3 mw=5 md=5 s=0
2.5)	I can explain the concept of Q-learning and Q-	66,7% 0% 33,3% 0% 0%		n=3
	tables. My skills in this area <i>before</i> starting the course were		very nigh	mw=1,7 md=1 s=1,2

2.6)	I can explain the concept of Q-learning and Q- tables. My skills in this area are <i>now</i>	Very low	0%	0%	0%	66,7%	33,3%	Very high	n=3 mw=4,3 md=4 s=0,6
2.7)	I can explain the concept of <i>approximation</i> in Q- learning. My skills in this area <i>before</i> starting the course were	Very low	66,7%	33,3%	0%	0%	0%	Very high	n=3 mw=1,3 md=1 s=0,6
2.8)	I can explain the concept of <i>approximation</i> in Q- learning. My skills in this area are <i>now</i>	Very low	0%	0%	33,3%	66,7%	0%	Very high	n=3 mw=3,7 md=4 s=0,6
2.9)	I can describe the function of residual connections in neural networks. My skills in this area <i>before</i> starting the course were	Very low	100%	2	0%	0%	0%	Very high	n=3 mw=1 md=1 s=0
2.10)	I can describe the function of residual connections in neural networks. My skills in this area are <i>now</i>	Very low	0%	2	0%	100%	0%	Very high	n=3 mw=4 md=4 s=0
2.11)	I can explain how Bayes' theorem is used in machine learning. My skills in this area <i>before</i> starting the course were	Very low	100%	2	0%	0%	0%	Very high	n=3 mw=1 md=1 s=0
2.12)	I can explain how Bayes' theorem is used in machine learning. My skills in this area are <i>now</i>	Very low	0%	2	66,7%	33,3%	0%	Very high	n=3 mw=3,3 md=3 s=0,6
2.13)	I can describe the concept of neural attention. My skills in this area <i>before</i> starting the course were	Very low	33,3%	33,3%	33,3%	0%	0%	Very high	n=3 mw=2 md=2 s=1
2.14)	I can describe the concept of neural attention. My skills in this area are <i>now</i>	Very low	0%	0%	33,3%	66,7%	0%	Very high	n=3 mw=3,7 md=4 s=0,6
3.	Questions about the course (2)								
3.1)	How useful was the content of Day 1 (topic: Algorithmic differentiation)?	Not useful	0%	0%	0%	33,3%	66,7%	Very useful	n=3 mw=4,7 md=5 s=0,6
3.2)	How useful was the content of Day 2 (topic: Reinforcement learning)?	Not useful	0%	0%	0%	33,3%	66,7%	Very useful	n=3 mw=4,7 md=5 s=0,6
3.3)	How useful was the content of Day 3 (topic: Neural networks & residual connections)?	Not useful	0%	2	0%	33,3%	66,7%	Very useful	n=3 mw=4,7 md=5 s=0,6

3.4)	How useful was the content of Day 4 (topic: Bayesian learning)?	Not useful	0%	0%	0%	33,3%	66,7%	Very useful	n=3 mw=4,7 md=5 s=0,6
3.5)	How useful was the content of Day 5 (topic: Vision transformer)?	Not useful	0%	0%	0%	33,3%	66,7%	Very useful	n=3 mw=4,7 md=5 s=0,6
3.6)	Please rate your agreement to the following statement: The unit tests helped me complete the exercises.	Do not agree at al	0%	0%	0%	0%	100%	Fully agree	n=3 mw=5 md=5 s=0
3.7)	Please rate your agreement to the following statement: I will consider writing my own tests in the future.	Do not agree at al	0%	0%	0%	0%	100%	Fully agree	n=3 mw=5 md=5 s=0
4	Questions about the course (3)								
4.1)	The course follows a clear structure.	Do not agree at all	0%	2	0%	66,7%	33,3%	Fully agree	n=3 mw=4,3 md=4 s=0,6
4.2)	The way the course is designed adds to the understanding of the material.	Do not agree at all	0%	0%	33,3%	33,3%	33,3%	Fully agree	n=3 mw=4 md=4 s=1
4.3)	The course has a good mix of knowledge transfer, interactive elements and discussion.	Do not agree at all	0%	0%	33,3%	33,3%	33,3%	Fully agree	n=3 mw=4 md=4 s=1
4.4)	The instructors are responsive to students' questions and suggestions.	Do not agree at all	0%	2	0%	33,3%	66,7%	Fully agree	n=3 mw=4,7 md=5 s=0,6
4.5)	The instructors clarify the usability and usefulness of the course content.	Do not agree at all	0%	0%	0%	66,7%	33,3%	Fully agree	n=3 mw=4,3 md=4 s=0,6
4.6)	The instructors use good teaching materials (e.g., slides, presentations, bibliography, script) to support the learning process.	Do not agree at all	0%	0%	33,3%	33,3%	33,3%	Fully agree	n=3 mw=4 md=4 s=1
4.7)	The instructors have good time management skills.	Do not agree at all	0%	0%	66,7%	0%	33,3% 	Fully agree	n=3 mw=3,7 md=3 s=1,2
4.8)	The instructors express themselves clearly and comprehensively.	Do not agree at all	0%	0%	33,3%	0%	66,7%	Fully agree	n=3 mw=4,3 md=5 s=1,2



Teilbereich:

Institut für Medizindidaktik Name der/des Lehrenden: Dr. Matthias Carl Laupichler

Titel der Lehrveranstaltung: ML_Advanced_2025_03 (Name der Umfrage)

Verwendete Werte in der Profillinie: Mittelwert

1. Questions about the course (1)

1.7)	The course is useful for conducting my research projects.	Do not agree at all			•	Fully agree	n=3	mw=4	md=4	s=1
1.8)	I can use what I have learned independently in my research projects.	Do not agree at all				Fully agree	n=3	mw=3,3	md=4	s=1,2
1.9)	The amount of examples in the course was appropriate.	Do not agree at all		-		Fully agree	n=3	mw=3,3	md=4	s=2,1

Very low

2. Evaluation of Learning Objectives

2.1)	I can explain algorithmic differentiation.
	My skills in this area <i>before</i> starting the course
	were

I can explain algorithmic differentiation. My skills in this area are *now*... 2.2)

2.3) I can implement simple algorithmic differentiation programs in Python. My skills in this area *before* starting the course

I can implement simple algorithmic differentiation programs in Python. My skills in this area are *now*... 2.4)

- 2.5) I can explain the concept of Q-learning and Q-tables My skills in this area *before* starting the course
- 2.6) I can explain the concept of Q-learning and Q-tables. My skills in this area are now ...
- 2.7) I can explain the concept of approximation in Q-learning. My skills in this area *before* starting the course
- 2.8) I can explain the concept of approximation in **Q-learning.** My skills in this area are *now*.

2.9) I can describe the function of residual connections in neural networks. My skills in this area *before* starting the course

^{2.10)} I can describe the function of residual connections in neural networks. My skills in this area are *now*...

^{2.11)} I can explain how Bayes' theorem is used in machine learning. My skills in this area *before* starting the course

^{2.12)} I can explain how Bayes' theorem is used in machine learning. My skills in this area are *now*...

 $^{2.13)}\,$ I can describe the concept of neural attention. My skills in this area *before* starting the course

^{2.14)} I can describe the concept of neural attention. My skills in this area are now...

3. Questions about the course (2)

3.1) How useful was the content of Day 1 (topic: Algorithmic differentiation)?	
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Very low				Very high	n=3	mw=4,7	md=5	s=0,6
Very low		~		Very high	n=3	mw=2,3	md=2	s=0,6
Very low				Very high	n=3	mw=5	md=5	s=0
Very low		 		Very high	n=3	mw=1,7	md=1	s=1,2
Very low				Very high	n=3	mw=4,3	md=4	s=0,6
Very low	<			Very high	n=3	mw=1,3	md=1	s=0,6
Very low				Very high	n=3	mw=3,7	md=4	s=0,6
Very low				Very high	n=3	mw=1	md=1	s=0
Very low				Very high	n=3	mw=4	md=4	s=0
Very low	<			Very high	n=3	mw=1	md=1	s=0
Very low			>	Very high	n=3	mw=3,3	md=3	s=0,6
Very low		K		Very high	n=3	mw=2	md=2	s=1
Very low				Very high	n=3	mw=3,7	md=4	s=0,6

Very high

n=3

mw=2.7

md=2

s=1.2

3.1)	How useful was the content of Day 1 (topic: Algorithmic differentiation)?	Not useful			-	Very useful	n=3	mw=4,7	md=5	s=0,6
3.2)	How useful was the content of Day 2 (topic: Reinforcement learning)?	Not useful			-	Very useful	n=3	mw=4,7	md=5	s=0,6
3.3)	How useful was the content of Day 3 (topic: Neural networks & residual connections)?	Not useful			-	Very useful	n=3	mw=4,7	md=5	s=0,6

3.4)	How useful was the content of Day 4 (topic: Bayesian learning)?	Not useful		┍	Very useful	n=3	mw=4,7	md=5	s=0,6
3.5)	How useful was the content of Day 5 (topic: Vision transformer)?	Not useful		┥	Very useful	n=3	mw=4,7	md=5	s=0,6
3.6)	Please rate your agreement to the following statement:	Do not agree at al			Fully agree	n=3	mw=5	md=5	s=0
3.7)	Please rate your agreement to the following statement: I will consider writing my own tests in the	Do not agree at al		-	Fully agree	n=3	mw=5	md=5	s=0
4.	Questions about the course (3)								
4.1)	The course follows a clear structure.	Do not agree at all	<u> </u>		Fully agree	n=3	mw=4,3	md=4	s=0,6
4.2)	The way the course is designed adds to the understanding of the material.	Do not agree at all	├ - 		Fully agree	n=3	mw=4	md=4	s=1
4.3)	The course has a good mix of knowledge transfer, interactive elements and discussion.	Do not agree at all	┝		Fully agree	n=3	mw=4	md=4	s=1
4.4)	The instructors are responsive to students' questions and suggestions.	Do not agree at all		$\mathbf{}$	Fully agree	n=3	mw=4,7	md=5	s=0,6
4.5)	The instructors clarify the usability and usefulness of the course content.	Do not agree at all	+ + +		Fully agree	n=3	mw=4,3	md=4	s=0,6
4.6)	The instructors use good teaching materials (e. g., slides, presentations, bibliography, script) to support the learning process	Do not agree at all			Fully agree	n=3	mw=4	md=4	s=1
4.7)	The instructors have good time management skills.	Do not agree at all	$\left \begin{array}{c} \\ \end{array} \right $		Fully agree	n=3	mw=3,7	md=3	s=1,2
4.8)	The instructors express themselves clearly and comprehensively.	Do not agree at all		-	Fully agree	n=3	mw=4,3	md=5	s=1,2
4.9)	The instructors encourage active student participation in the course.	Do not agree at all			Fully agree	n=3	mw=3,7	md=3	s=1,2
5.	Questions about the course (4)								

5.1)	How much did you learn in this course?	Very little			Very much	- 0		and C	- 00
						11=3	mw=4,7	mu=5	S=0,6
5.2)	How interested were you in the topic <i>before</i> the course began?	Very little		4	Very much	n=3	mw=4,3	md=4	s=0,6

Auswertungsteil der offenen Fragen

5. Questions about the course (4)

- ^{5.3)} What did you like most about the course?
- the theoretical foundations (algorithmic differentiation), both in theory and practice
- ^{5.4)} What could be improved about this course?
- provide some more structure in the exercises
- The only improvement i could think of would be if unit tests would be available for every day of the course, since they help immensely

6. Participant statistics

- ^{6.2)} What is your main field of research?
- Economics
- ^{6.5)} What is your age (in years)?
- 35 (2 Nennungen)