DL as a Micro-credentials Course, 16 Sep 2024

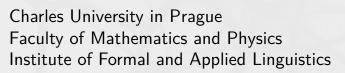


Deep Learning as a Micro-credentials Course

Milan Straka

≡ 16 September, 2024









The official (rectorate) description from https://cczv.cuni.cz/CCZVEN-521.html



The official (rectorate) description from https://cczv.cuni.cz/CCZVEN-521.html

Acquiring knowledge and skills in the 21st century

Nowadays, education is the key factor for career success and personal development. However, with a dynamic labour market and rapid changes in technology and society, traditional forms of education may seem inadequate. In this context, new programmes are emerging that enable individuals to broaden their knowledge, increase their qualifications and strengthen their competences in line with the new needs of the labour market and society. These programmes lead to the acquisition of microcredentials.



The official (rectorate) description from https://cczv.cuni.cz/CCZVEN-521.html

What is specific about programmes leading to micro-credentials?

These are specialized courses that provide interdisciplinary insights and are closely linked to the private sector. They are designed to be flexible and adaptable to the needs of individuals, which is often achieved through extensive distance learning. Upon course completion, learners receive a digital certificate, which is an effective way to demonstrate the knowledge and skills they have acquired.



The official (rectorate) description from https://cczv.cuni.cz/CCZVEN-521.html

The benefits of micro-credentials

• **Specialisation**: Programmes leading to micro-credentials allow individuals to specialise in particular skills or areas that are relevant to their career.



The official (rectorate) description from https://cczv.cuni.cz/CCZVEN-521.html

The benefits of micro-credentials

- **Specialisation**: Programmes leading to micro-credentials allow individuals to specialise in particular skills or areas that are relevant to their career.
- Flexibility: Programmes leading to micro-credentials are often available online and allow individuals to study at their own pace.



The official (rectorate) description from https://cczv.cuni.cz/CCZVEN-521.html

The benefits of micro-credentials

- **Specialisation**: Programmes leading to micro-credentials allow individuals to specialise in particular skills or areas that are relevant to their career.
- **Flexibility**: Programmes leading to micro-credentials are often available online and allow individuals to study at their own pace.
- International recognition: Thanks to a unified European framework, microcredentials are better recognised abroad, increasing graduate mobility.



The official (rectorate) description from https://cczv.cuni.cz/CCZVEN-521.html

The benefits of micro-credentials

- **Specialisation**: Programmes leading to micro-credentials allow individuals to specialise in particular skills or areas that are relevant to their career.
- **Flexibility**: Programmes leading to micro-credentials are often available online and allow individuals to study at their own pace.
- International recognition: Thanks to a unified European framework, microcredentials are better recognised abroad, increasing graduate mobility.
- **Transparency**: Certificates will be easily verifiable through a national database (expected to be launched in June 2024), giving them credibility and protection against forgery.



• The courses can be attended by anyone registering (i.e., not just university students).



- The courses can be attended by anyone registering (i.e., not just university students).
- The courses are paid.



- The courses can be attended by anyone registering (i.e., not just university students).
- The courses are paid.
- A MC course can be backed-up by a normal university course (that is how Deep Learning course works). In that case, students decide in advance whether they want just a "regular" course, or a MC course.



- The courses can be attended by anyone registering (i.e., not just university students).
- The courses are paid.
- A MC course can be backed-up by a normal university course (that is how Deep Learning course works). In that case, students decide in advance whether they want just a "regular" course, or a MC course.
 - The fee for UK students is much lower.



- The courses can be attended by anyone registering (i.e., not just university students).
- The courses are paid.
- A MC course can be backed-up by a normal university course (that is how Deep Learning course works). In that case, students decide in advance whether they want just a "regular" course, or a MC course.
 - The fee for UK students is much lower.
 - Even if students decided to pass just a "regular" course, they can ask for the MC later (it will cost slightly more, by one € or so).



• I am very unsure about how the price will be set.





- I am very unsure about how the price will be set.
- A table for calculations is available, but I will need help from the Student Affairs department.





- I am very unsure about how the price will be set.
- A table for calculations is available, but I will need help from the Student Affairs department.



• Ideally, it should be somehow consistent with Mimořádné studium (Special forms of study; prices set by Dean's Directive 9/2023), where



- I am very unsure about how the price will be set.
- A table for calculations is available, but I will need help from the Student Affairs department.



- Ideally, it should be somehow consistent with Mimořádné studium (Special forms of study; prices set by Dean's Directive 9/2023), where
 - one credit of a Czech language course costs 600 Kč



- I am very unsure about how the price will be set.
- A table for calculations is available, but I will need help from the Student Affairs department.



- Ideally, it should be somehow consistent with Mimořádné studium (Special forms of study; prices set by Dean's Directive 9/2023), where
 - one credit of a Czech language course costs 600 Kč
 - 4.8 kKč for Deep Learning, which is worth 8 e-credits



- I am very unsure about how the price will be set.
- A table for calculations is available, but I will need help from the Student Affairs department.



- Ideally, it should be somehow consistent with Mimořádné studium (Special forms of study; prices set by Dean's Directive 9/2023), where
 - one credit of a Czech language course costs 600 Kč
 - 4.8 kKč for Deep Learning, which is worth 8 e-credits
 - one credit of an English language course costs 2000 Kč



- I am very unsure about how the price will be set.
- A table for calculations is available, but I will need help from the Student Affairs department.



- Ideally, it should be somehow consistent with Mimořádné studium (Special forms of study; prices set by Dean's Directive 9/2023), where
 - one credit of a Czech language course costs 600 Kč
 - 4.8 kKč for Deep Learning, which is worth 8 e-credits
 - one credit of an English language course costs 2000 Kč
 - 16 kKč (!!) for Deep Learning



• I am very unsure about how the price will be set.

- A table for calculations is available, but I will need help from the Student Affairs department.
- Ideally, it should be somehow consistent with Mimořádné studium (Special forms of study; prices set by Dean's Directive 9/2023), where
 - one credit of a Czech language course costs 600 Kč
 - 4.8 kKč for Deep Learning, which is worth 8 e-credits
 - one credit of an English language course costs 2000 Kč
 - 16 kKč (!!) for Deep Learning

For the MC courses, the prices of Czech/English variant should be the same.



- I am very unsure about how the price will be set.
- A table for calculations is available, but I will need help from the Student Affairs department.



- Ideally, it should be somehow consistent with Mimořádné studium (Special forms of study; prices set by Dean's Directive 9/2023), where
 - one credit of a Czech language course costs 600 Kč
 - 4.8 kKč for Deep Learning, which is worth 8 e-credits
 - one credit of an English language course costs 2000 Kč
 - 16 kKč (!!) for Deep Learning

For the MC courses, the prices of Czech/English variant should be the same.

BTW, I was surprised that on https://www.mff.cuni.cz/cs/studenti/celozivotni-vzdelavani/mimoradne-studium, there is

Zájemci, kteří se zapisují do mimořádného studia v rámci smluvní spolupráce MFF UK s externími subjekty (např. vybrané fakulty ČVUT, studenti PRG/AI) poplatek neplatí.

Current Accredited Micro-credentials Courses



Programmes in English

- Deep Learning
- International Online Course On The Pathogenesis of Epilepsy
- Microscopic Approaches and Image Analysis in Biomedicine and Microtechnologie
- Spatial Data Science for Social Geography

Programmes in Czech

- 31 Czech courses in total:
 - Antropocén: moderní svět v transdisciplinární perspektivě / Anthropocene: the contemporary world in transdisciplinary perspective
- Čeština pro akademické prostředí

...

Hluboké učení

...

- Základy managementu sportovní organizace
- Základy programování (another MFF MC course)

Guidebook for Registration, Implementation, Promotion of MC URL

Guidebook for Registration, Implementation, Promotion of courses leading to micro-credentials is available in **Czech** and **English**.



Up-to-date links from https://cczv.cuni.cz/CCZV-521.html.



Mgr. Michaela Veselá from the Rectorate, Center for Lifelong Learning, is the person-to-go when applying for accreditation of a MC course. She was very helpful.





Mgr. Michaela Veselá from the Rectorate, Center for Lifelong Learning, is the person-to-go when applying for accreditation of a MC course. She was very helpful.



Right now, the MC courses (and therefore also the accreditation) is quite new, so (a) people are unsure about various details, (b) some processes (like applying in SIS) are not yet implemented.



Proces přípravy, schvalování a realizace kurzů vedoucích k získání micro-credentials na UK

PŘEHLED JEDNOTLIVÝCH KROKŮ PROCESU

žádosti o registraci (schválení).

Fakulta či součást UK podá žádost o registraci kurzu MC

- 1) Zájemce/budoucí garant MC přípraví koncepci kurzu vedoucího k micro-crendetials včetně jeho personálního zabezpečení a ekonomické rozvahy.
 Zájemce/budoucí garant MC informuje vedení fakulty či součásti UK o zájmu registrovat a realizovat kurz MC, případně získá souhlas k podání
- Vedení fakulty či součástí UK návrh kurzu MC včetně jeho ekonomického hledíska projedná, případně odsouhlasí podání žádostí o registraci (schválení) kurzu.
- 3) Zájemce/budoucí garant MC vyplní (v případě potřeby ve spoluprácí s příslušným oddělením fakulty či součásti UK) předepsané digitální formuláře MCI a MCII (aktuální podoba formulářů na Intranetu Centra celožívotního vzdělávání RUK) v SIS v modulu "Evidence programů ČŽV a MC kurzů" v záložce "Micro-credentials kurzy". Děkan/ka, ředitel/ka ústavu či centra nebo kancléř/ka (v případě, že kurz není navázán na žádnou z fakult) podá na předepsaných digitálních formulářích žádost o registrací kurzu RVH (imenovitě rektorce) prostředníctvím CCŽV.

Formuláře zrcadlí požadavky související se zajišťováním kvality definované ve Standardech a směrnicích pro zajišťování kvality v evropském prostoru vysokého Školství (Standarda sand Guidelines for Quality Assurance in the European Higher Education Area, ESG), dále naplňují požadavky a doporučení výše zmíňovaného doporučení Rady, respektive Evropské komise, a jsou navázány na Systém zajišťování a vnitřního hodnocení kvality na UK.

Součástí žádosti je <u>průvodní dopis</u> (vzor na Intranetu Centra celoživotního vzdělávání RUK).

Žádost může obsahovat i návrh externího posuzovatele (2–3 varianty).

CCŽV/OKVA RUK kontroluje formální náležitosti

- CCŽV posoudí formální náležitosti (ECTS kredity, výsledky učení a další).
 V případě nesrovnalostí vrátí žádost v určité lhůtě k přepracování.
- 2) OKVA předá materiály RVH k posouzení.

RVH posoudí návrh a vysloví souhlas s registrací kurzu MC

- RVH zajistí posouzení materiálů (skrze interního nebo externího posuzovatele).
 - Posuzovatel připraví posudek s doporučujícím/nedoporučujícím stanoviskem.

 Posuzuje koncepci kurzu a personální zabezpečení.
- RVH projedná na zasedání návrh a vysloví souhlas s registrací kurzu maximálně na 10 let (možnosti kontrolní zprávy, nápravného opatření).
 Rozhodnutí o schválení kurzu se vydává na základě usnesení RHV.
 - V případě nedoporučení registrace připojí RVH zdůvodnění.
 - Usnesení RVH bude vždy zveřejněno na webu RVH

Kurz MC je vypsán a zveřejněn v nabídce kurzů UK a národním katalogu

- 1) Příslušné oddělení či osoba (například garant MC) vypíše kurz MC.
- Registrovaný (schválený) kurz MC se zároveň automaticky zobrazí v nabídce kurzů MC na webu UK a v národním katalogu kurzů MC.

Fakulta či součást zajišťuje realizaci kurzu MC

- Garant MC (případně klíčoví vyučující kurzu MC) a příslušné oddělení fakulty či součásti UK zajišťují realizaci kurzu MC.
 - Postup v případě změn při uskutečňování kurzu MC je uveden níže v sekci "Vedení fakulty".
- V průběhu realizace kurzu MC probíhá sběr a vyhodnocování zpětné vazby.
 Na sběru a vyhodnocování se podílí garant MC a realizátor kurzu, tedy vedení fakulty či součásti UK.
 - Sběr zpětné vazby k MC kurzům bude probíhat podle stejných principů jako v případě hodnocení výuky studujícími. Vedle toho bude probíhat zpětná vazba od absolventů MC kurzů.

Fakulta či součást UK vydává osvědčení absolventům kurzu MC

- Fakulta či součást UK vydává absolventům kurzu MC PDF verzi osvědčení, která je reprezentací elektronického záznamu (micro-credential).
- 2) Administrativní podporu zajišťuje studijní oddělení či oddělení CŽV.



- MCI are informations about the course, like
 - o name, abstract, description, learning outcomes (knowledge/skills/competences), examination, ...



- MCI are informations about the course, like
 - o name, abstract, description, learning outcomes (knowledge/skills/competences), examination, ...
 - hours of lectures/practicals/distance learning/other obligations



- MCI are informations about the course, like
 - o name, abstract, description, learning outcomes (knowledge/skills/competences), examination, ...
 - o hours of lectures/practicals/distance learning/other obligations
 - O ECTS; must be 25-30 hours per e-credit (so 200-240 hours per DL)



- MCI are informations about the course, like
 - name, abstract, description, learning outcomes (knowledge/skills/competences), examination, ...
 - o hours of lectures/practicals/distance learning/other obligations
 - O ECTS; must be 25-30 hours per e-credit (so 200-240 hours per DL)
 - technical and pedagogical support, support for participants, participant feedback



- MCI are informations about the course, like
 - name, abstract, description, learning outcomes (knowledge/skills/competences), examination, ...
 - o hours of lectures/practicals/distance learning/other obligations
 - O ECTS; must be 25-30 hours per e-credit (so 200-240 hours per DL)
 - technical and pedagogical support, support for participants, participant feedback

The time needed to fill MCI was about 8 hours.



- MCI are informations about the course, like
 - name, abstract, description, learning outcomes (knowledge/skills/competences), examination, ...
 - hours of lectures/practicals/distance learning/other obligations
 - ECTS; must be 25-30 hours per e-credit (so 200-240 hours per DL)
 - technical and pedagogical support, support for participants, participant feedback

The time needed to fill MCI was about 8 hours.

The plan is for the form to be in SIS; currently a docx file (note that LibreOffice generated a docx that could not be open on Windows).



- MCI are informations about the course, like
 - name, abstract, description, learning outcomes (knowledge/skills/competences), examination, ...
 - hours of lectures/practicals/distance learning/other obligations
 - ECTS; must be 25-30 hours per e-credit (so 200-240 hours per DL)
 - technical and pedagogical support, support for participants, participant feedback

The time needed to fill MCI was about 8 hours.

The plan is for the form to be in SIS; currently a docx file (note that LibreOffice generated a docx that could not be open on Windows).

MCII is a fairly standard CV



- MCI are informations about the course, like
 - name, abstract, description, learning outcomes (knowledge/skills/competences), examination, ...
 - hours of lectures/practicals/distance learning/other obligations
 - ECTS; must be 25-30 hours per e-credit (so 200-240 hours per DL)
 - technical and pedagogical support, support for participants, participant feedback

The time needed to fill MCI was about 8 hours.

The plan is for the form to be in SIS; currently a docx file (note that LibreOffice generated a docx that could not be open on Windows).

- MCII is a fairly standard CV
- The cover letter was written by doc. Kuboň



- MCI are informations about the course, like
 - o name, abstract, description, learning outcomes (knowledge/skills/competences), examination, ...
 - hours of lectures/practicals/distance learning/other obligations
 - o ECTS; must be 25-30 hours per e-credit (so 200-240 hours per DL)
 - technical and pedagogical support, support for participants, participant feedback

The time needed to fill MCI was about 8 hours.

The plan is for the form to be in SIS; currently a docx file (note that LibreOffice generated a docx that could not be open on Windows).

- MCII is a fairly standard CV
- The cover letter was written by doc. Kuboň

The overall time spent on MC by me about 4 work days so far.



Future Work

• Set the course price.



- Set the course price.
- Register the course in SIS.



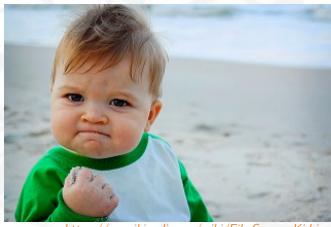
- Set the course price.
- Register the course in SIS.
- Decide how to allow the UK students to apply for the MC before the course (some possible methods sent by RUK).



- Set the course price.
- Register the course in SIS.
- Decide how to allow the UK students to apply for the MC before the course (some possible methods sent by RUK).
 - Probably, a new variant of the course will be created, where only the students will be able to enroll.



- Set the course price.
- Register the course in SIS.
- Decide how to allow the UK students to apply for the MC before the course (some possible methods sent by RUK).
 - Probably, a new variant of the course will be created, where only the students will be able to enroll.
- And then give the course itself.



https://en.wikipedia.org/wiki/File:SuccessKid.jpg



• Will some students apply for the certificate?



- Will some students apply for the certificate?
- Will someone from the outside actually come?



- Will some students apply for the certificate?
- Will someone from the outside actually come?
 - What happens if many people comes?



- Will some students apply for the certificate?
- Will someone from the outside actually come?
 - What happens if many people comes?
 - Famous last words: But I do not expect they will.



- Will some students apply for the certificate?
- Will someone from the outside actually come?
 - What happens if many people comes?
 - Famous last words: But I do not expect they will.
- It is unclear whether <u>prg.ai</u> Minor students or Erasmus students can get lower price for the certificate (the latest answer is no).



- Will some students apply for the certificate?
- Will someone from the outside actually come?
 - What happens if many people comes?
 - Famous last words: But I do not expect they will.
- It is unclear whether <u>prg.ai</u> Minor students or Erasmus students can get lower price for the certificate (the latest answer is no).
- At least the Czech and English price will be the same



- Will some students apply for the certificate?
- Will someone from the outside actually come?
 - What happens if many people comes?
 - Famous last words: But I do not expect they will.
- It is unclear whether <u>prg.ai</u> Minor students or Erasmus students can get lower price for the certificate (the latest answer is no).
- At least the Czech and English price will be the same
 - o in the past, a few English-speaking PhD students decided not to attend Deep Learning when they realized the price would be 20 kKč.